

Concurrency In C Cookbook

If you ally infatuation such a referred **Concurrency In C Cookbook** book that will have the funds for you worth, get the categorically best seller from us currently from several preferred authors. If you want to hilarious books, lots of novels, tale, jokes, and more fictions collections are along with launched, from best seller to one of the most current released.

You may not be perplexed to enjoy every book collections Concurrency In C Cookbook that we will unconditionally offer. It is not roughly the costs. Its just about what you compulsion currently. This Concurrency In C Cookbook, as one of the most in action sellers here will definitely be along with the best options to review.

Concurrency in C# Cookbook - Stephen Cleary
2014

If you're one of the many developers uncertain about concurrent and multithreaded development, this practical cookbook will change your mind. With more than 75 code-rich recipes, author Stephen Cleary demonstrates parallel processing and asynchronous programming

techniques, using libraries and language features in .NET 4.5 and C# 5.0. Concurrency is becoming more common in responsive and scalable application development, but it's been extremely difficult to code. The detailed solutions in this cookbook show you how modern tools raise the level of abstraction, making concurrency much easier than before. Complete with

ready-to-use code and discussions about how and why the solution works, you get recipes for using: async and await for asynchronous operations Parallel programming with the Task Parallel Library The TPL Dataflow library for creating dataflow pipelines Capabilities that Reactive Extensions build on top of LINQ Unit testing with concurrent code Interop scenarios for combining concurrent approaches Immutable, threadsafe, and producer/consumer collections Cancellation support in your concurrent code Asynchronous-friendly Object-Oriented Programming Thread synchronization for accessing data

C++ Multithreading

Cookbook - Milos Ljumovic
2014-10-25

Over 60 recipes to help you create ultra-fast multithreaded applications using C++ with rules, guidelines, and best practices Overview Create

multithreaded applications using the power of C++ Upgrade your applications with parallel execution in easy-to-understand steps Stay up to date with new Windows 8 concurrent tasks Avoid classical synchronization problems Understand Windows API and concurrent execution What you will learn from this book Use an object-oriented programming model with inheritance, overloading, and polymorphism Solve common Interprocess Communication problems and avoid deadlocks or starvation problems in your application development Manage threads efficiently using the CThread class Explore .NET CLI/C++ features as well as synchronization objects and techniques Make use of parallel techniques in code design Use machine resources in concurrent execution Enable programs to work with each other using Message Passing

*Downloaded from
ect2018.fpune.edu.py on
by guest*

Avoid classic synchronization problems In Detail Creating multithreaded applications is a present-day approach towards programming. With the power of C++, you can easily create various types of applications and perform parallelism and optimizations in your existing work. This book is a practical, powerful, and easy-to-understand guide to C++ multithreading. You will learn how to benefit from the multithreaded approach and enhance your development skills to build better applications. This book will not only help you avoid problems when creating parallel code, but also help you to understand synchronization techniques. The end goal of the book will be to impart various multithreading concepts that will enable you to do parallel computing and concurrent programming quickly and efficiently. Approach The book is an easy-to-follow guide for

creating multi-threaded applications using C++. Each topic is thoroughly explained with multiple illustrations. Many algorithms, such as Dining Philosophers Problem give you thorough explanations that will help you to understand and solve concurrent tasks. Who this book is for The book is intended for enterprise developers and programmers who wish to make use of C++ capabilities to learn the multithreaded approach. Knowledge of multithreading along with experience in C++ is an added advantage. However it is not a prerequisite. C++ Concurrency in Action - Anthony Williams 2019-02-07 Summary This bestseller has been updated and revised to cover all the latest changes to C++ 14 and 17! C++ Concurrency in Action, Second Edition teaches you everything you need to write robust and

elegant multithreaded applications in C++17. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology You choose C++ when your applications need to run fast. Well-designed concurrency makes them go even faster. C++ 17 delivers strong support for the multithreaded, multiprocessor programming required for fast graphic processing, machine learning, and other performance-sensitive tasks. This exceptional book unpacks the features, patterns, and best practices of production-grade C++ concurrency. About the Book C++ Concurrency in Action, Second Edition is the definitive guide to writing elegant multithreaded applications in C++. Updated for C++ 17, it carefully addresses every aspect of concurrent development, from starting

new threads to designing fully functional multithreaded algorithms and data structures. Concurrency master Anthony Williams presents examples and practical tasks in every chapter, including insights that will delight even the most experienced developer. What's inside Full coverage of new C++ 17 features Starting and managing threads Synchronizing concurrent operations Designing concurrent code Debugging multithreaded applications About the Reader Written for intermediate C and C++ developers. No prior experience with concurrency required. About the Author Anthony Williams has been an active member of the BSI C++ Panel since 2001 and is the developer of the just::thread Pro extensions to the C++ 11 thread library. Table of Contents Hello, world of concurrency in C++! Managing threads Sharing

data between threads
Synchronizing concurrent
operations The C++
memory model and
operations on atomic types
Designing lock-based
concurrent data structures
Designing lock-free
concurrent data structures
Designing concurrent code
Advanced thread
management Parallel
algorithms Testing and
debugging multithreaded
applications

Java Cookbook - Ian F.

Darwin 2014-06-25

From lambda expressions
and JavaFX 8 to new
support for network
programming and mobile
development, Java 8 brings
a wealth of changes. This
cookbook helps you get up
to speed right away with
hundreds of hands-on
recipes across a broad
range of Java topics. You'll
learn useful techniques for
everything from debugging
and data structures to GUI
development and functional
programming. Each recipe
includes self-contained code

solutions that you can freely
use, along with a discussion
of how and why they work.
If you are familiar with Java
basics, this cookbook will
bolster your knowledge of
the language in general and
Java 8's main APIs in
particular. Recipes include:
Methods for compiling,
running, and debugging
Manipulating, comparing,
and rearranging text
Regular expressions for
string- and pattern-
matching Handling
numbers, dates, and times
Structuring data with
collections, arrays, and
other types Object-oriented
and functional programming
techniques Directory and
filesystem operations
Working with graphics,
audio, and video GUI
development, including
JavaFX and handlers
Network programming on
both client and server
Database access, using JPA,
Hibernate, and JDBC
Processing JSON and XML
for data storage
Multithreading and

concurrency

Erlang Programming -

Francesco Cesarini

2009-06-11

This book is an in-depth introduction to Erlang, a programming language ideal for any situation where concurrency, fault tolerance, and fast response is essential. Erlang is gaining widespread adoption with the advent of multi-core processors and their new scalable approach to concurrency. With this guide you'll learn how to write complex concurrent programs in Erlang, regardless of your programming background or experience. Written by leaders of the international Erlang community -- and based on their training material -- Erlang Programming focuses on the language's syntax and semantics, and explains pattern matching, proper lists, recursion, debugging, networking, and concurrency. This book helps you: Understand the

strengths of Erlang and why its designers included specific features Learn the concepts behind concurrency and Erlang's way of handling it Write efficient Erlang programs while keeping code neat and readable Discover how Erlang fills the requirements for distributed systems Add simple graphical user interfaces with little effort Learn Erlang's tracing mechanisms for debugging concurrent and distributed systems Use the built-in Mnesia database and other table storage features Erlang Programming provides exercises at the end of each chapter and simple examples throughout the book.

Advanced C++

Programming Cookbook -

Dr. Rian Quinn 2020-01-30

A recipe-based guide to refining your C++ programming skills with the help of coding best practices, advanced programming concepts, and

*Downloaded from
ect2018.fpune.edu.py on
by guest*

the latest features of C++17 and C++20 Key Features Learn how to develop and design your own libraries Find solutions to your app development problems and implement them in a highly reusable manner, following library development best practices Explore advanced C++ features such as containers, coroutines, and modules Book Description If you think you've mastered C++ and know everything it takes to write robust applications, you'll be in for a surprise. With this book, you'll gain comprehensive insights into C++, covering exclusive tips and interesting techniques to enhance your app development process. You'll kick off with the basic principles of library design and development, which will help you understand how to write reusable and maintainable code. You'll then discover the importance of exception safety, and how you can

avoid unexpected errors or bugs in your code. The book will take you through the modern elements of C++, such as move semantics, type deductions, and coroutines. As you advance, you'll delve into template programming - the standard tool for most library developers looking to achieve high code reusability. You'll explore the STL and learn how to avoid common pitfalls while implementing templates. Later, you'll learn about the problems of multithreaded programming such as data races, deadlocks, and thread starvation. You'll also learn high-performance programming by using benchmarking tools and libraries. Finally, you'll discover advanced techniques for debugging and testing to ensure code reliability. By the end of this book, you'll have become an expert at C++ programming and will have gained the skills to solve complex development

problems with ease. What you will learn
Solve common C++ development problems by implementing solutions in a more generic and reusable way
Achieve different levels of exception safety guarantees by introducing precise declarations
Write library-quality code that meets professional standards
Practice writing reliable, performant code that exposes consistent behavior in programs
Understand why you need to implement design patterns and how it's done
Work with complex examples to understand various aspects of good library design
Who this book is for
This book is for intermediate and expert-level C++ developers who are looking to explore the lesser known functionalities of the language to improve the efficiency of their code and the way they develop applications. Basic knowledge of object-oriented programming

concepts and the Standard Template Library (STL) is assumed.

C# Multithreaded and Parallel Programming -

Rodney Ringler 2014-12-24

If you are a C# developer and want to learn how to take advantage of the features of .NET for concurrent and multithreaded applications, then this book is for you. If you are already comfortable with C# but want to learn more about parallel design patterns, threads, tasks, and async, then look no further!

Multithreading with C#

Cookbook Second Edition -

Eugene Agafonov

2016-04-21

Over 70 recipes to get you writing powerful and efficient multithreaded, asynchronous, and parallel programs in C# 6.0
About This Book- Rewritten and updated to take advantage of the latest C# 6 features-
Learn about multithreaded, asynchronous, and parallel programming through hands-on, code-first

Downloaded from
ect2018.fpu.edu.py on
by guest

examples- Use these recipes to build fast, scalable, and reliable applications in C#

Who This Book Is For This book is aimed at those who are new to multithreaded programming, and who are looking for a quick and easy way to get started. It is assumed that you have some experience in C# and .NET already, and you should also be familiar with basic computer science terminology and basic algorithms and data structures.

What You Will Learn- Use C# 6.0 asynchronous language features- Work with raw threads, synchronize threads, and coordinate their work- Develop your own asynchronous API with Task Parallel Library- Work effectively with a thread pool- Scale up your server application with I/O threads- Parallelize your LINQ queries with PLINQ- Use common concurrent collections- Apply different parallel programming

patterns- Use Reactive Extensions to run asynchronous operations and manage their options

In Detail Multi-core processors are synonymous with computing speed and power in today's world, which is why multithreading has become a key concern for C# developers. Multithreaded code helps you create effective, scalable, and responsive applications. This is an easy-to-follow guide that will show you difficult programming problems in context. You will learn how to solve them with practical, hands-on, recipes. With these recipes, you'll be able to start creating your own scalable and reliable multithreaded applications. Starting from learning what a thread is, we guide you through the basics and then move on to more advanced concepts such as task parallel libraries, C# asynchronous functions, and much more. Rewritten to the latest C# specification, C#

6, and updated with new and modern recipes to help you make the most of the hardware you have available, this book will help you push the boundaries of what you thought possible in C#. Style and approach This is an easy-to-follow guide full of hands-on examples of real-world multithreading tasks. Each topic is explained and placed in context, and for the more inquisitive, there are also more in-depth details of the concepts used.

Mastering C# Concurrency

- Eugene Agafonov
2015-10-28

Create robust and scalable applications along with responsive UI using concurrency and the multithreading infrastructure in .NET and C# About This Book Learn to combine your asynchronous operations with Task Parallel Library Master C#'s asynchronous infrastructure and use asynchronous APIs effectively to achieve optimal responsiveness of

the application An easy-to-follow, example-based guide that helps you to build scalable applications using concurrency in C# Who This Book Is For If you are a C# developer who wants to develop modern applications in C# and wants to overcome problems by using asynchronous APIs and standard patterns, then this book is ideal for you.

Reasonable development knowledge, an understanding of core elements and applications related to the .Net platform, and also the fundamentals of concurrency is assumed. What You Will Learn Apply general multithreading concepts to your application's design Leverage lock-free concurrency and learn about its pros and cons to achieve efficient synchronization between user threads Combine your asynchronous operations with Task Parallel Library Make your code easier with

Downloaded from
ect2018.fpu.edu.py on
by guest

C#'s asynchrony support
Use common concurrent
collections and
programming patterns
Write scalable and robust
server-side asynchronous
code Create fast and
responsible client
applications Avoid common
problems and troubleshoot
your multi-threaded and
asynchronous applications
In Detail Starting with the
traditional approach to
concurrency, you will learn
how to write multithreaded
concurrent programs and
compose ways that won't
require locking. You will
explore the concepts of
parallelism granularity, and
fine-grained and coarse-
grained parallel tasks by
choosing a concurrent
program structure and
parallelizing the workload
optimally. You will also
learn how to use task
parallel library,
cancellations, timeouts, and
how to handle errors. You
will know how to choose the
appropriate data structure
for a specific parallel

algorithm to achieve
scalability and performance.
Further, you'll learn about
server scalability,
asynchronous I/O, and
thread pools, and write
responsive traditional
Windows and Windows
Store applications. By the
end of the book, you will be
able to diagnose and resolve
typical problems that could
happen in multithreaded
applications. Style and
approach An easy-to-follow,
example-based guide that
will walk you through the
core principles of
concurrency and
multithreading using C#.

The Art of Multiprocessor Programming, Revised

Reprint - Maurice Herlihy
2012-06-25

Revised and updated with
improvements conceived in
parallel programming
courses, The Art of
Multiprocessor
Programming is an
authoritative guide to
multicore programming. It
introduces a higher level set
of software development

Downloaded from
ect2018.fpune.edu.py on
by guest

skills than that needed for efficient single-core programming. This book provides comprehensive coverage of the new principles, algorithms, and tools necessary for effective multiprocessor programming. Students and professionals alike will benefit from thorough coverage of key multiprocessor programming issues. This revised edition incorporates much-demanded updates throughout the book, based on feedback and corrections reported from classrooms since 2008 Learn the fundamentals of programming multiple threads accessing shared memory Explore mainstream concurrent data structures and the key elements of their design, as well as synchronization techniques from simple locks to transactional memory systems Visit the companion site and download source code, example Java programs, and

materials to support and enhance the learning experience
IOS 7 Programming Cookbook - Vandad Nahavandipoor 2013-10-14
Overcome the vexing issues you're likely to face when creating apps for the iPhone, iPad, or iPod touch. With new and thoroughly revised recipes in this updated cookbook, you'll quickly learn the steps necessary to work with the iOS 7 SDK--including ways to store and protect data, send and receive notifications, enhance and animate graphics, manage files and folders, and take advantage of UI Dynamics.
Multithreading with C# Cookbook - Eugene Agafonov 2016-04-21
Over 70 recipes to get you writing powerful and efficient multithreaded, asynchronous, and parallel programs in C# 6.0 About This Book Rewritten and updated to take advantage of the latest C# 6 features Learn about multithreaded,

asynchronous, and parallel programming through hands-on, code-first examples Use these recipes to build fast, scalable, and reliable applications in C# Who This Book Is For This book is aimed at those who are new to multithreaded programming, and who are looking for a quick and easy way to get started. It is assumed that you have some experience in C# and .NET already, and you should also be familiar with basic computer science terminology and basic algorithms and data structures. What You Will Learn Use C# 6.0 asynchronous language features Work with raw threads, synchronize threads, and coordinate their work Develop your own asynchronous API with Task Parallel Library Work effectively with a thread pool Scale up your server application with I/O threads Parallelize your LINQ queries with PLINQ Use common concurrent

collections Apply different parallel programming patterns Use Reactive Extensions to run asynchronous operations and manage their options In Detail Multi-core processors are synonymous with computing speed and power in today's world, which is why multithreading has become a key concern for C# developers.

Multithreaded code helps you create effective, scalable, and responsive applications. This is an easy-to-follow guide that will show you difficult programming problems in context. You will learn how to solve them with practical, hands-on, recipes. With these recipes, you'll be able to start creating your own scalable and reliable multithreaded applications. Starting from learning what a thread is, we guide you through the basics and then move on to more advanced concepts such as task parallel libraries, C# asynchronous functions, and

much more. Rewritten to the latest C# specification, C# 6, and updated with new and modern recipes to help you make the most of the hardware you have available, this book will help you push the boundaries of what you thought possible in C#. Style and approach This is an easy-to-follow guide full of hands-on examples of real-world multithreading tasks. Each topic is explained and placed in context, and for the more inquisitive, there are also more in-depth details of the concepts used. *C++17 STL Cookbook* - Jacek Galowicz 2017-06-28 Over 90 recipes that leverage the powerful features of the Standard Library in C++17 About This Book Learn the latest features of C++ and how to write better code by using the Standard Library (STL). Reduce the development time for your applications. Understand the scope and power of STL features to deal with real-world

problems. Compose your own algorithms without forfeiting the simplicity and elegance of the STL way. Who This Book Is For This book is for intermediate-to-advanced C++ programmers who want to get the most out of the Standard Template Library of the newest version of C++: C++ 17. What You Will Learn Learn about the new core language features and the problems they were intended to solve Understand the inner workings and requirements of iterators by implementing them Explore algorithms, functional programming style, and lambda expressions Leverage the rich, portable, fast, and well-tested set of well-designed algorithms provided in the STL Work with strings the STL way instead of handcrafting C-style code Understand standard support classes for concurrency and synchronization, and how to put them to work Use the

filesystem library addition available with the C++17 STL. In Detail C++ has come a long way and is in use in every area of the industry. Fast, efficient, and flexible, it is used to solve many problems. The upcoming version of C++ will see programmers change the way they code. If you want to grasp the practical usefulness of the C++17 STL in order to write smarter, fully portable code, then this book is for you. Beginning with new language features, this book will help you understand the language's mechanics and library features, and offers insight into how they work. Unlike other books, ours takes an implementation-specific, problem-solution approach that will help you quickly overcome hurdles. You will learn the core STL concepts, such as containers, algorithms, utility classes, lambda expressions, iterators, and more, while working on practical real-world recipes.

These recipes will help you get the most from the STL and show you how to program in a better way. By the end of the book, you will be up to date with the latest C++17 features and save time and effort while solving tasks elegantly using the STL. Style and approach This recipe-based guide will show you how to make the best use of C++ together with the STL to squeeze more out of the standard language

iOS 8 Swift Programming Cookbook - Vandad

Nahavandipoor 2014-11-10

Entirely rewritten for Apple's Swift programming language, this updated cookbook helps you overcome the vexing issues you're likely to face when creating apps for iOS devices. You'll find hundreds of new and revised recipes for using the iOS 8 SDK, including techniques for working with Health data and HomeKit accessories, enhancing and animating graphics, storing

Downloaded from
ect2018.fpune.edu.py on
by guest

and protecting data, sending and receiving notifications, and managing files and folders among them. Each recipe includes sample code on GitHub that you can use right away. Use CloudKit APIs to store information in the cloud with ease Create custom keyboards and extensions Access users' health-related information with HealthKit Interact with accessories inside the user's home with HomeKit Create vibrant and lifelike user interfaces with UIKit Dynamics Use the Keychain to protect your app's data Develop location-aware and multitasking-aware apps Work with iOS 8's audio and video APIs Use Event Kit UI to manage calendars, dates, and events Take advantage of the accelerometer and the gyroscope Get working examples for implementing gesture recognizers Retrieve and manipulate contacts and groups from the Address Book Determine a camera's

availability and access the Photo Library

Rust Programming Cookbook - Claus Matzinger 2019-10-18
Practical solutions to overcome challenges in creating console and web applications and working with systems-level and embedded code, network programming, deep neural networks, and much more. Key Features Work through recipes featuring advanced concepts such as concurrency, unsafe code, and macros to migrate your codebase to the Rust programming language Learn how to run machine learning models with Rust Explore error handling, macros, and modularization to write maintainable code Book Description Rust 2018, Rust's first major milestone since version 1.0, brings more advancement in the Rust language. The Rust Programming Cookbook is a practical guide to help you overcome challenges when writing Rust code. This Rust

Downloaded from
ect2018.fpune.edu.py on
by guest

book covers recipes for configuring Rust for different environments and architectural designs, and provides solutions to practical problems. It will also take you through Rust's core concepts, enabling you to create efficient, high-performance applications that use features such as zero-cost abstractions and improved memory management. As you progress, you'll delve into more advanced topics, including channels and actors, for building scalable, production-grade applications, and even get to grips with error handling, macros, and modularization to write maintainable code. You will then learn how to overcome common roadblocks when using Rust for systems programming, IoT, web development, and network programming. Finally, you'll discover what Rust 2018 has to offer for embedded programmers. By the end of the book, you'll have learned how to build

fast and safe applications and services using Rust. What you will learn Understand how Rust provides unique solutions to solve system programming language problems Grasp the core concepts of Rust to develop fast and safe applications Explore the possibility of integrating Rust units into existing applications for improved efficiency Discover how to achieve better parallelism and security with Rust Write Python extensions in Rust Compile external assembly files and use the Foreign Function Interface (FFI) Build web applications and services using Rust for high performance Who this book is for The Rust cookbook is for software developers looking to enhance their knowledge of Rust and leverage its features using modern programming practices. Familiarity with Rust language is expected to get the most out of this book.

C Programming

Downloaded from
ect2018.fpune.edu.py on
by guest

Cookbook - B. M. Harwani
2019-03-29

A comprehensive guide with curated recipes to help you gain a deeper understanding of modern C. Key Features Learn how to make your applications swift and robust by leveraging powerful features of C Understand the workings of arrays, strings, functions, and more down to how they operate in memory Master process synchronization during multi-tasking and server-client process communication Book Description C is a high-level language that's popular among developers. It enables you to write drivers for different devices, access machine-level hardware, apply dynamic memory allocation, and much more. With self-contained tutorials, known as recipes, this book will guide you in dealing with C and its idiosyncrasies and help you benefit from its latest features. Beginning with

common tasks, each recipe addresses a specific problem followed by explaining the solution to get you acquainted with what goes on under the hood. You will explore core concepts of the programming language, including how to work with strings, pointers, and single and multi-dimensional arrays. You will also learn how to break a large application into small modules by creating functions, handling files, and using a database. Finally, the book will take you through advanced concepts such as concurrency and interprocess communication. By the end of this book, you'll have a clear understanding and deeper knowledge of C programming, which will help you become a better developer. What you will learn Manipulate single and multi-dimensional arrays Perform complex operations on strings Understand how

to use pointers and memory optimally Discover how to use arrays, functions, and strings to make large applications Implement multitasking using threads and process synchronization Establish communication between two or more processes using different techniques Store simple text in files and store data in a database Who this book is for If you're a programmer with basic experience in C and want to leverage its features through modern programming practices, then this book is for you.

Concurrency in C#

Cookbook - Stephen Cleary
2014-05-15

If you're one of the many developers uncertain about concurrent and multithreaded development, this practical cookbook will change your mind. With more than 75 code-rich recipes, author Stephen Cleary demonstrates parallel processing and asynchronous programming techniques, using libraries

and language features in .NET 4.5 and C# 5.0.

Concurrency is becoming more common in responsive and scalable application development, but it's been extremely difficult to code.

The detailed solutions in this cookbook show you how modern tools raise the level of abstraction, making concurrency much easier than before. Complete with ready-to-use code and discussions about how and why the solution works, you get recipes for using: async and await for asynchronous operations Parallel programming with the Task Parallel Library The TPL Dataflow library for creating dataflow pipelines Capabilities that Reactive Extensions build on top of LINQ Unit testing with concurrent code Interop scenarios for combining concurrent approaches Immutable, threadsafe, and producer/consumer collections Cancellation support in your concurrent code Asynchronous-friendly

Object-Oriented
Programming Thread
synchronization for
accessing data
C# Cookbook - Joe Mayo
2021-09-28
Even if you're familiar with
C# syntax, knowing how to
combine various language
features is a critical skill
when you're building
applications. This cookbook
is packed full of recipes to
help you solve issues for C#
programming tasks you're
likely to encounter. You'll
learn tried-and-true
techniques to help you
achieve greater productivity
and improve the quality of
your code. Author and
independent consultant Joe
Mayo shares some of the
most important practices
you'll need to be successful
as a C# developer. Each
section of this cookbook
describes some useful facet
of the C# programming
language. These recipes--
the result of many years of
experience--are proven
concepts for solving real-
world problems with C#.

Recipes in this book will
help you: Set up your
project, manage object
lifetime, and establish
patterns Improve code
quality through
maintainability, error
prevention, and correct
syntax Use LINQ to Objects
for in-memory data
manipulation and querying
Understand the differences
between dynamic
programming and reflection
Apply several async
programming features you
may not be aware of Work
with data using newer
libraries and algorithms
Learn different ways to use
new C# features, such as
pattern matching and
records

Python Cookbook - Alex
Martelli 2005-03-18
Portable, powerful, and a
breeze to use, Python is the
popular open source object-
oriented programming
language used for both
standalone programs and
scripting applications. It is
now being used by an
increasing number of major

Downloaded from
ect2018.fpune.edu.py on
by guest

organizations, including NASA and Google. Updated for Python 2.4, The Python Cookbook, 2nd Edition offers a wealth of useful code for all Python programmers, not just advanced practitioners. Like its predecessor, the new edition provides solutions to problems that Python programmers face everyday. It now includes over 200 recipes that range from simple tasks, such as working with dictionaries and list comprehensions, to complex tasks, such as monitoring a network and building a templating system. This revised version also includes new chapters on topics such as time, money, and metaprogramming. Here's a list of additional topics covered: Manipulating text Searching and sorting Working with files and the filesystem Object-oriented programming Dealing with threads and processes System administration Interacting with databases

Creating user interfaces
Network and web programming
Processing XML
Distributed programming
Debugging and testing
Another advantage of The Python Cookbook, 2nd Edition is its trio of authors--three well-known Python programming experts, who are highly visible on email lists and in newsgroups, and speak often at Python conferences. With scores of practical examples and pertinent background information, The Python Cookbook, 2nd Edition is the one source you need if you're looking to build efficient, flexible, scalable, and well-integrated systems.

[Java Concurrency in Practice](#) - Tim Peierls
2006-05-09

Threads are a fundamental part of the Java platform. As multicore processors become the norm, using concurrency effectively becomes essential for building high-performance

Downloaded from
ect2018.fpu.edu.py on
by guest

applications. Java SE 5 and 6 are a huge step forward for the development of concurrent applications, with improvements to the Java Virtual Machine to support high-performance, highly scalable concurrent classes and a rich set of new concurrency building blocks. In *Java Concurrency in Practice*, the creators of these new facilities explain not only how they work and how to use them, but also the motivation and design patterns behind them. However, developing, testing, and debugging multithreaded programs can still be very difficult; it is all too easy to create concurrent programs that appear to work, but fail when it matters most: in production, under heavy load. *Java Concurrency in Practice* arms readers with both the theoretical underpinnings and concrete techniques for building reliable, scalable, maintainable concurrent applications. Rather than

simply offering an inventory of concurrency APIs and mechanisms, it provides design rules, patterns, and mental models that make it easier to build concurrent programs that are both correct and performant. This book covers: Basic concepts of concurrency and thread safety Techniques for building and composing thread-safe classes Using the concurrency building blocks in `java.util.concurrent` Performance optimization dos and don'ts Testing concurrent programs Advanced topics such as atomic variables, nonblocking algorithms, and the Java Memory Model

Extreme C - Kamran Amini
2019-10-31
Push the limits of what C - and you - can do, with this high-intensity guide to the most advanced capabilities of C Key Features Make the most of C's low-level control, flexibility, and high performance A comprehensive guide to C's

most powerful and challenging features. A thought-provoking guide packed with hands-on exercises and examples. **Book Description** There's a lot more to C than knowing the language syntax. The industry looks for developers with a rigorous, scientific understanding of the principles and practices. *Extreme C* will teach you to use C's advanced low-level power to write effective, efficient systems. This intensive, practical guide will help you become an expert C programmer. Building on your existing C knowledge, you will master preprocessor directives, macros, conditional compilation, pointers, and much more. You will gain new insight into algorithm design, functions, and structures. You will discover how C helps you squeeze maximum performance out of critical, resource-constrained applications. C still plays a critical role in 21st-century programming,

remaining the core language for precision engineering, aviations, space research, and more. This book shows how C works with Unix, how to implement OO principles in C, and fully covers multi-processing. In *Extreme C*, Amini encourages you to think, question, apply, and experiment for yourself. The book is essential for anybody who wants to take their C to the next level. What you will learn: Build advanced C knowledge on strong foundations, rooted in first principles. Understand memory structures and compilation pipeline and how they work, and how to make most out of them. Apply object-oriented design principles to your procedural C code. Write low-level code that's close to the hardware and squeezes maximum performance out of a computer system. Master concurrency, multithreading, multi-

processing, and integration with other languages Unit Testing and debugging, build systems, and inter-process communication for C programming Who this book is for Extreme C is for C programmers who want to dig deep into the language and its capabilities. It will help you make the most of the low-level control C gives you.

Concurrent Programming in Java - Douglas Lea 2000 Software -- Programming Languages.

Python Cookbook - David Beazley 2013-05-10 If you need help writing programs in Python 3, or want to update older Python 2 code, this book is just the ticket. Packed with practical recipes written and tested with Python 3.3, this unique cookbook is for experienced Python programmers who want to focus on modern tools and idioms. Inside, you'll find complete recipes for more than a dozen topics, covering the core Python language as well as

tasks common to a wide variety of application domains. Each recipe contains code samples you can use in your projects right away, along with a discussion about how and why the solution works. Topics include: Data Structures and Algorithms Strings and Text Numbers, Dates, and Times Iterators and Generators Files and I/O Data Encoding and Processing Functions Classes and Objects Metaprogramming Modules and Packages Network and Web Programming Concurrency Utility Scripting and System Administration Testing, Debugging, and Exceptions C Extensions

C# 10 in a Nutshell - Joseph Albahari 2022-02-15 When you have questions about C# 10 or .NET 6, this best-selling guide has the answers you need. C# is a language of unusual flexibility and breadth, and with its continual growth, there's always so much

Downloaded from
ect2018.fpu.edu.py on
by guest

more to learn. In the tradition of O'Reilly's Nutshell guides, this thoroughly updated edition is simply the best one-volume reference to the C# language available today. Organized around concepts and use cases, this comprehensive and complete reference provides intermediate and advanced programmers with a concise map of C# and .NET that also plumbs significant depths. Get up to speed on C#, from syntax and variables to advanced topics such as pointers, closures, and patterns Dig deep into LINQ, with three chapters dedicated to the topic Explore concurrency and asynchrony, advanced threading, and parallel programming Work with .NET features, including regular expressions, networking, assemblies, spans, reflection, and cryptography

C++ System Programming Cookbook -
Onorato Vaticone

2020-02-21

A problem-solution-based guide to help you overcome hurdles effectively while working with kernel APIs, filesystems, networks, threads, and process communications
Key Features
Learn to apply the latest C++ features (from C++11, 14, 17, and 20) to facilitate systems programming
Create robust and concurrent systems that make the most of the available hardware resources
Delve into C++ inbuilt libraries and frameworks to design robust systems as per your business needs
Book Description
C++ is the preferred language for system programming due to its efficient low-level computation, data abstraction, and object-oriented features. System programming is about designing and writing computer programs that interact closely with the underlying operating system and allow computer

Downloaded from
ect2018.fpune.edu.py on
by guest

hardware to interface with the programmer and the user. The C++ System Programming Cookbook will serve as a reference for developers who want to have ready-to-use solutions for the essential aspects of system programming using the latest C++ standards wherever possible. This C++ book starts out by giving you an overview of system programming and refreshing your C++ knowledge. Moving ahead, you will learn how to deal with threads and processes, before going on to discover recipes for how to manage memory. The concluding chapters will then help you understand how processes communicate and how to interact with the console (console I/O). Finally, you will learn how to deal with time interfaces, signals, and CPU scheduling. By the end of the book, you will become adept at developing robust systems applications using C++. What you will learn

Get up to speed with the fundamentals including makefile, man pages, compilation, and linking and debugging. Understand how to deal with time interfaces, signals, and CPU scheduling. Develop your knowledge of memory management. Use processes and threads for advanced synchronizations (mutexes and condition variables). Understand interprocess communications (IPC): pipes, FIFOs, message queues, shared memory, and TCP and UDP. Discover how to interact with the console (console I/O). Who this book is for: This book is for C++ developers who want to gain practical knowledge of systems programming. Though no experience of Linux system programming is assumed, intermediate knowledge of C++ is necessary.

C++20 Recipes - J. Burton Browning 2020-04-24

Discover the newest major features of C++20, including modules,

concepts, spaceship operators, and smart pointers. This book is a handy code cookbook reference guide that covers the C++ core language standard as well as some of the code templates available in standard template library (STL). In C++20 Recipes: A Problem-Solution Approach, you'll find numbers, strings, dates, times, classes, exceptions, streams, flows, pointers, and more. Also, you'll see various code samples, templates for C++ algorithms, parallel processing, multithreading, and numerical processes. It also includes 3D graphics programming code. A wealth of STL templates on function objects, adapters, allocators, and extensions are also available. This is a must-have, contemporary reference for your technical library to help with just about any project that involves the C++ programming language. What You Will Learn See what's new in C++20 Write

modules Work with text, numbers, and classes Use the containers and algorithms available in the standard library Work with templates, memory, concurrency, networking, scripting, and more Code for 3D graphics Who This Book Is For Programmers with at least some prior experience with C++. C# 6.0 Cookbook - Jay Hilyard 2015-09-29 Completely updated for C# 6.0, the new edition of this bestseller offers more than 150 code recipes to common and not-so-common problems that C# programmers face every day. More than a third of the recipes have been rewritten to take advantage of new C# 6.0 features. If you prefer solutions to general C# language instruction and quick answers to theory, this is your book. C# 6.0 Cookbook offers new recipes for asynchronous methods, dynamic objects, enhanced error handling, the Roslyn

compiler, and more. Here are some of topics covered: Classes and generics Collections, enumerators, and iterators Data types LINQ and Lambda expressions Exception handling Reflection and dynamic programming Regular expressions Filesystem interactions Networking and the Web XML usage Threading, Synchronization, and Concurrency Each recipe in the book includes tested code that you can download from oreilly.com and reuse in your own applications, and each one includes a detailed discussion of how and why the underlying technology works. You don't have to be an experienced C# or .NET developer to use C# 6.0 Cookbook. You just have to be someone who wants to solve a problem now, without having to learn all the related theory first.

Concurrency - Jeff Magee
2014-09-23

Concurrency provides a

thoroughly updated approach to the basic concepts and techniques behind concurrent programming. Concurrent programming is complex and demands a much more formal approach than sequential programming. In order to develop a thorough understanding of the topic Magee and Kramer present concepts, techniques and problems through a variety of forms: informal descriptions, illustrative examples, abstract models and concrete Java examples. These combine to provide problem patterns and associated solution techniques which enable students to recognise problems and arrive at solutions. New features include: New chapters covering program verification and logical properties. More student exercises. Supporting website contains an updated version of the LTSA tool for modelling concurrency, model animation, and model

*Downloaded from
ect2018.fpu.edu.py on
by guest*

checking. Website also includes the full set of state models, java examples, and demonstration programs and a comprehensive set of overhead slides for course presentation.

[The Art of Writing Efficient Programs](#) - Fedor G. Pikus
2021-10-22

Become a better programmer with performance improvement techniques such as concurrency, lock-free programming, atomic operations, parallelism, and memory management Key Features Learn proven techniques from a heavyweight and recognized expert in C++ and high-performance computing Understand the limitations of modern CPUs and their performance impact Find out how you can avoid writing inefficient code and get the best optimizations from the compiler Learn the tradeoffs and costs of writing high-performance programs Book Description The great free

lunch of "performance taking care of itself" is over. Until recently, programs got faster by themselves as CPUs were upgraded, but that doesn't happen anymore. The clock frequency of new processors has almost peaked, and while new architectures provide small improvements to existing programs, this only helps slightly. To write efficient software, you now have to know how to program by making good use of the available computing resources, and this book will teach you how to do that. The Art of Efficient Programming covers all the major aspects of writing efficient programs, such as using CPU resources and memory efficiently, avoiding unnecessary computations, measuring performance, and how to put concurrency and multithreading to good use. You'll also learn about compiler optimizations and how to use the programming language

Downloaded from
ect2018.fpu.edu.py on
by guest

(C++) more efficiently. Finally, you'll understand how design decisions impact performance. By the end of this book, you'll not only have enough knowledge of processors and compilers to write efficient programs, but you'll also be able to understand which techniques to use and what to measure while improving performance. At its core, this book is about learning how to learn. What you will learnDiscover how to use the hardware computing resources in your programs effectivelyUnderstand the relationship between memory order and memory barriersFamiliarize yourself with the performance implications of different data structures and organizationsAssess the performance impact of concurrent memory accessed and how to minimize itDiscover when to use and when not to use lock-free programming techniquesExplore different

ways to improve the effectiveness of compiler optimizationsDesign APIs for concurrent data structures and high-performance data structures to avoid inefficienciesWho this book is for This book is for experienced developers and programmers who work on performance-critical projects and want to learn new techniques to improve the performance of their code. Programmers in algorithmic trading, gaming, bioinformatics, computational genomics, or computational fluid dynamics communities will get the most out of the examples in this book, but the techniques are fairly universal. Although this book uses the C++ language, the concepts demonstrated in the book can be easily transferred or applied to other compiled languages such as C, Java, Rust, Go, and more.

Concurrency in Go - Katherine Cox-Buday

*Downloaded from
ect2018.fpune.edu.py on
by guest*

2017-07-19

Concurrency can be notoriously difficult to get right, but fortunately, the Go open source programming language makes working with concurrency tractable and even easy. If you're a developer familiar with Go, this practical book demonstrates best practices and patterns to help you incorporate concurrency into your systems. Author Katherine Cox-Buday takes you step-by-step through the process. You'll understand how Go chooses to model concurrency, what issues arise from this model, and how you can compose primitives within this model to solve problems. Learn the skills and tooling you need to confidently write and implement concurrent systems of any size. Understand how Go addresses fundamental problems that make concurrency difficult to do correctly. Learn the key

differences between concurrency and parallelism. Dig into the syntax of Go's memory synchronization primitives. Form patterns with these primitives to write maintainable concurrent code. Compose patterns into a series of practices that enable you to write large, distributed systems that scale. Learn the sophistication behind goroutines and how Go's runtime stitches everything together.

Concurrent Programming on Windows - Joe Duffy
2009

This practical book includes a tutorial of the entire set of Windows and .NET APIs required to write concurrent programs. Because so much of the threading and synchronization features of the platform are Windows-general, the author, Joe Duffy, focuses first on the general behavior and then on the API details of native and managed code. Interspersed among the

tutorial are many difficult-to-discover, useful insights, and internal details about how things work.

Hands-On System

Programming with C++ -

Dr. Rian Quinn 2018-12-26

A hands-on guide to making system programming with C++ easy

Key Features Write system-level code leveraging

C++17 Learn the internals of the Linux Application

Binary Interface (ABI) and apply it to system

programming Explore C++ concurrency to take

advantage of server-level constructs

Book Description C++ is a general-purpose programming language with a bias toward system

programming as it provides ready access to hardware-level resources, efficient compilation, and a versatile approach to higher-level

abstractions. This book will help you understand the benefits of system

programming with C++17. You will gain a firm

understanding of various C,

C++, and POSIX standards, as well as their respective system types for both C++ and POSIX. After a brief refresher on C++, Resource Acquisition Is Initialization (RAII), and the new C++ Guideline Support Library (GSL), you will learn to program Linux and Unix systems along with process management. As you progress through the chapters, you will become acquainted with C++'s support for IO. You will then study various memory management methods, including a chapter on allocators and how they benefit system programming. You will also explore how to program file input and output and learn about POSIX sockets. This book will help you get to grips with safely setting up a UDP and TCP server/client. Finally, you will be guided through Unix time interfaces, multithreading, and error handling with C++ exceptions. By the end of

*Downloaded from
ect2018.fpu.edu.py on
by guest*

this book, you will be comfortable with using C++ to program high-quality systems. What you will learn Understand the benefits of using C++ for system programming Program Linux/Unix systems using C++ Discover the advantages of Resource Acquisition Is Initialization (RAII) Program both console and file input and output Uncover the POSIX socket APIs and understand how to program them Explore advanced system programming topics, such as C++ allocators Use POSIX and C++ threads to program concurrent systems Grasp how C++ can be used to create performant system applications Who this book is for If you are a fresh developer with intermediate knowledge of C++ but little or no knowledge of Unix and Linux system programming, this book will help you learn system programming with C++ in a

practical way.

Modern C++ Programming Cookbook - Marius Bancila
2017-05-15

Over 100 recipes to help you overcome your difficulties with C++ programming and gain a deeper understanding of the working of modern C++ About This Book Explore the most important language and library features of C++17, including containers, algorithms, regular expressions, threads, and more, Get going with unit testing frameworks Boost.Test, Google Test and Catch, Extend your C++ knowledge and take your development skills to new heights by making your applications fast, robust, and scalable. Who This Book Is For If you want to overcome difficult phases of development with C++ and leverage its features using modern programming practices, then this book is for you. The book is designed for both

experienced C++ programmers as well as people with strong knowledge of OOP concepts. What You Will Learn Get to know about the new core language features and the problems they were intended to solve Understand the standard support for threading and concurrency and know how to put them on work for daily basic tasks Leverage C++'s features to get increased robustness and performance Explore the widely-used testing frameworks for C++ and implement various useful patterns and idioms Work with various types of strings and look at the various aspects of compilation Explore functions and callable objects with a focus on modern features Leverage the standard library and work with containers, algorithms, and iterators Use regular expressions for find and replace string operations Take advantage of the new

filesystem library to work with files and directories Use the new utility additions to the standard library to solve common problems developers encounter including `string_view`, `any`, optional and variant types In Detail C++ is one of the most widely used programming languages. Fast, efficient, and flexible, it is used to solve many problems. The latest versions of C++ have seen programmers change the way they code, giving up on the old-fashioned C-style programming and adopting modern C++ instead. Beginning with the modern language features, each recipe addresses a specific problem, with a discussion that explains the solution and offers insight into how it works. You will learn major concepts about the core programming language as well as common tasks faced while building a wide variety of software. You will learn about concepts such as

concurrency, performance, meta-programming, lambda expressions, regular expressions, testing, and many more in the form of recipes. These recipes will ensure you can make your applications robust and fast. By the end of the book, you will understand the newer aspects of C++11/14/17 and will be able to overcome tasks that are time-consuming or would break your stride while developing. Style and approach This book follows a recipe-based approach, with examples that will empower you to implement the core programming language features and explore the newer aspects of C++.

Mastering C++

Multithreading - Maya

Posch 2017-07-28

Master multithreading and concurrent processing with C++ About This Book Delve into the fundamentals of multithreading and concurrency and find out how to implement them

Explore atomic operations to optimize code performance Apply concurrency to both distributed computing and GPGPU processing Who This Book Is For This book is for intermediate C++ developers who wish to extend their knowledge of multithreading and concurrent processing. You should have basic experience with multithreading and be comfortable using C++ development toolchains on the command line. What You Will Learn Deep dive into the details of the how various operating systems currently implement multithreading Choose the best multithreading APIs when designing a new application Explore the use of mutexes, spin-locks, and other synchronization concepts and see how to safely pass data between threads Understand the level of API support provided by various C++ toolchains Resolve common

Downloaded from
ect2018.fpu.edu.py on
by guest

issues in multithreaded code and recognize common pitfalls using tools such as Memcheck, CacheGrind, DRD, Helgrind, and more. Discover the nature of atomic operations and understand how they can be useful in optimizing code. Implement a multithreaded application in a distributed computing environment. Design a C++-based GPGPU application that employs multithreading. In Detail Multithreaded applications execute multiple threads in a single processor environment, allowing developers achieve concurrency. This book will teach you the finer points of multithreading and concurrency concepts and how to apply them efficiently in C++. Divided into three modules, we start with a brief introduction to the fundamentals of multithreading and concurrency concepts. We then take an in-depth look at how these concepts work at the hardware-level as

well as how both operating systems and frameworks use these low-level functions. In the next module, you will learn about the native multithreading and concurrency support available in C++ since the 2011 revision, synchronization and communication between threads, debugging concurrent C++ applications, and the best programming practices in C++. In the final module, you will learn about atomic operations before moving on to apply concurrency to distributed and GPGPU-based processing. The comprehensive coverage of essential multithreading concepts means you will be able to efficiently apply multithreading concepts while coding in C++. Style and approach This book is filled with examples that will help you become a master at writing robust concurrent and parallel applications in C++.

Concurrency in C#

*Downloaded from
ect2018.fpu.edu.py on
by guest*

Cookbook - Stephen Cleary
2014-05-15

If you're one of the many developers uncertain about concurrent and multithreaded development, this practical cookbook will change your mind. With more than 75 code-rich recipes, author Stephen Cleary demonstrates parallel processing and asynchronous programming techniques, using libraries and language features in .NET 4.5 and C# 5.0. Concurrency is becoming more common in responsive and scalable application development, but it's been extremely difficult to code. The detailed solutions in this cookbook show you how modern tools raise the level of abstraction, making concurrency much easier than before. Complete with ready-to-use code and discussions about how and why the solution works, you get recipes for using: `async` and `await` for asynchronous operations Parallel programming with the Task

Parallel Library The TPL Dataflow library for creating dataflow pipelines Capabilities that Reactive Extensions build on top of LINQ Unit testing with concurrent code Interop scenarios for combining concurrent approaches Immutable, threadsafe, and producer/consumer collections Cancellation support in your concurrent code Asynchronous-friendly Object-Oriented Programming Thread synchronization for accessing data

Concurrency in C# Cookbook - Stephen Cleary
2019-11-04

If you're one of the many developers uncertain about concurrent and multithreaded development, this practical cookbook will change your mind. With more than 75 code-rich recipes, author Stephen Cleary demonstrates parallel processing and asynchronous programming techniques, using libraries and language features in

.NET and C#. Concurrency is becoming more common in responsive and scalable application development, but it's been extremely difficult to code. The detailed solutions in this cookbook show you how modern tools raise the level of abstraction, making concurrency much easier than before. You'll get ready-to-use code and discussions about how and why the solution works.

Java 9 Concurrency

Cookbook - Javier Fernández Gonzalez
2017-04-25

Master the art of fast, effective Java development with the power of concurrent and parallel programming About This Book Get detailed coverage of important recipes on multi-threading and parallel programming This book takes a close look at the Java 9 APIs and their impact on concurrency See practical examples on thread safety, high-performance classes, safe

sharing, and a whole lot more Who This Book Is For The book is for Java developers and programmers at an intermediate to advanced level. It will be especially useful for developers who want to take advantage of task-based recipes using Java 9's concurrent API to program thread-safe solutions. What You Will Learn Find out to manage the basic components of the Java Concurrency API Use synchronization mechanisms to avoid data race conditions and other problems of concurrent applications Separate the thread management from the rest of the application with the Executor framework Solve problems using a parallelized version of the divide and conquer paradigm with the Fork / Join framework Process massive data sets in an optimized way using streams and reactive streams See which data structures we can use in

concurrent applications and how to use them Practice efficient techniques to test concurrent applications Get to know tips and tricks to design concurrent applications In Detail Writing concurrent and parallel programming applications is an integral skill for any Java programmer. Java 9 comes with a host of fantastic features, including significant performance improvements and new APIs. This book will take you through all the new APIs, showing you how to build parallel and multi-threaded applications. The book covers all the elements of the Java Concurrency API, with essential recipes that will help you take advantage of the exciting new capabilities. You will learn how to use parallel and reactive streams to process massive data sets. Next, you will move on to create streams and use all their intermediate and terminal operations to

process big collections of data in a parallel and functional way. Further, you'll discover a whole range of recipes for almost everything, such as thread management, synchronization, executors, parallel and reactive streams, and many more. At the end of the book, you will learn how to obtain information about the status of some of the most useful components of the Java Concurrency API and how to test concurrent applications using different tools. Style and approach This recipe-based book will allow you to explore the exciting capabilities of concurrency in Java. After reading this book, you will be able to comfortably build parallel applications in Java 9.

Concurrency in C# Cookbook - Stephen Cleary (Web developer) 2014

Modern C++ Programming Cookbook - Second Edition - MARIUS. BANCILA

Downloaded from
ect2018.fpu.edu.py on
by guest

2020-09-11

Over 100 recipes to help you overcome your difficulties with C++ programming and gain a deeper understanding of the working of modern C++ Key Features Explore the most important language and library features of C++17, including containers, algorithms, regular expressions, threads, and more, Get going with unit testing frameworks Boost.Test, Google Test and Catch, Extend your C++ knowledge and take your development skills to new heights by making your applications fast, robust, and scalable. Book Description C++ is one of the most widely used programming languages. Fast, efficient, and flexible, it is used to solve many problems. The latest versions of C++ have seen programmers change the way they code, giving up on the old-fashioned C-style programming and adopting

modern C++ instead.

Beginning with the modern language features, each recipe addresses a specific problem, with a discussion that explains the solution and offers insight into how it works. You will learn major concepts about the core programming language as well as common tasks faced while building a wide variety of software. You will learn about concepts such as concurrency, performance, meta-programming, lambda expressions, regular expressions, testing, and many more in the form of recipes. These recipes will ensure you can make your applications robust and fast. By the end of the book, you will understand the newer aspects of C++11/14/17 and will be able to overcome tasks that are time-consuming or would break your stride while developing. What you will learn Get to know about the new core language features and the problems they were

intended to solve
Understand the standard
support for threading and
concurrency and know how
to put them on work for
daily basic tasks Leverage
C++'s features to get
increased robustness and
performance Explore the
widely-used testing
frameworks for C++ and
implement various useful
patterns and idioms Work
with various types of strings
and look at the various
aspects of compilation
Explore functions and
callable objects with a focus
on modern features
Leverage the standard
library and work with
containers, algorithms, and
iterators Use regular
expressions for find and
replace string operations
Take advantage of the new
filesystem library to work
with files and directories
Use the new utility
additions to the standard
library to solve common
problems developers
encounter including
string_view, any, optional

and variant types Who this
book is for If you want to
overcome difficult phases of
development with C++ and
leverage its features using
modern programming
practices, then this book is
for you. The book is
designed for both
experienced C++
programmers as well as
people with strong
knowledge of OOP
concepts.

Concurrency in .NET -
Riccardo Terrell 2018-06-05
Summary Concurrency in
.NET teaches you how to
build concurrent and
scalable programs in .NET
using the functional
paradigm. This
intermediate-level guide is
aimed at developers,
architects, and passionate
computer programmers who
are interested in writing
code with improved speed
and effectiveness by
adopting a declarative and
pain-free programming
style. Purchase of the print
book includes a free eBook
in PDF, Kindle, and ePub

Downloaded from
ect2018.fpune.edu.py on
by guest

formats from Manning Publications. About the Technology Unlock the incredible performance built into your multi-processor machines. Concurrent applications run faster because they spread work across processor cores, performing several tasks at the same time. Modern tools and techniques on the .NET platform, including parallel LINQ, functional programming, asynchronous programming, and the Task Parallel Library, offer powerful alternatives to traditional thread-based concurrency. About the Book Concurrency in .NET teaches you to write code that delivers the speed you need for performance-sensitive applications. Featuring examples in both C# and F#, this book guides you through concurrent and parallel designs that emphasize functional programming in theory and practice. You'll

start with the foundations of concurrency and master essential techniques and design practices to optimize code running on modern multiprocessor systems. What's Inside The most important concurrency abstractions Employing the agent programming model Implementing real-time event-stream processing Executing unbounded asynchronous operations Best concurrent practices and patterns that apply to all platforms About the Reader For readers skilled with C# or F#. About the Book Riccardo Terrell is a seasoned software engineer and Microsoft MVP who is passionate about functional programming. He has over 20 years' experience delivering cost-effective technology solutions in a competitive business environment. Table of Contents PART 1 - Benefits of functional programming applicable to concurrent programs Functional concurrency foundations

Functional programming techniques for concurrency
Functional data structures and immutability PART 2 - How to approach the different parts of a concurrent program
The basics of processing big data: data parallelism, part 1
PLINQ and MapReduce: data parallelism, part 2
Real-time event streams: functional reactive programming
Task-based functional parallelism
Task asynchronicity for the win
Asynchronous functional

programming in F#
Functional combinators for fluent concurrent programming
Applying reactive programming everywhere with agents
Parallel workflow and agent programming with TPL
Dataflow PART 3 - Modern patterns of concurrent programming applied
Recipes and design patterns for successful concurrent programming
Building a scalable mobile app with concurrent functional programming