

Developing Web Apps With Haskell And Yesod Safety Driven Web Development

EVENUALLY, YOU WILL UNCONDITIONALLY DISCOVER A SUPPLEMENTARY EXPERIENCE AND SUCCESS BY SPENDING MORE CASH. YET WHEN? COMPLETE YOU TOLERATE THAT YOU REQUIRE TO ACQUIRE THOSE EVERY NEEDS SUBSEQUENTLY HAVING SIGNIFICANTLY CASH? WHY DONT YOU ATTEMPT TO ACQUIRE SOMETHING BASIC IN THE BEGINNING? THATS SOMETHING THAT WILL LEAD YOU TO UNDERSTAND EVEN MORE ALL BUT THE GLOBE, EXPERIENCE, SOME PLACES, PAST HISTORY, AMUSEMENT, AND A LOT MORE?

IT IS YOUR VERY OWN BECOME OLD TO DEED REVIEWING HABIT. AMONG GUIDES YOU COULD ENJOY NOW IS **DEVELOPING WEB APPS WITH HASKELL AND YESOD SAFETY DRIVEN WEB DEVELOPMENT** BELOW.

HASKELL FROM THE VERY BEGINNING - JOHN WHITINGTON
2019-09-30

IN HASKELL FROM THE VERY BEGINNING JOHN WHITINGTON TAKES A NO-PREREQUISITES APPROACH TO TEACHING THE BASICS OF A MODERN GENERAL-PURPOSE PROGRAMMING LANGUAGE. EACH SMALL, SELF-CONTAINED CHAPTER INTRODUCES A NEW TOPIC, BUILDING UNTIL THE READER CAN WRITE QUITE SUBSTANTIAL PROGRAMS. THERE ARE PLENTY OF QUESTIONS AND, CRUCIALLY, WORKED ANSWERS AND HINTS. HASKELL FROM THE VERY BEGINNING WILL APPEAL BOTH TO NEW PROGRAMMERS, AND TO EXPERIENCED PROGRAMMERS EAGER TO EXPLORE FUNCTIONAL LANGUAGES SUCH AS HASKELL. IT IS SUITABLE BOTH FOR FORMAL USE WITHIN AN UNDERGRADUATE OR GRADUATE CURRICULUM, AND FOR THE INTERESTED AMATEUR.

PRACTICAL HASKELL - ALEJANDRO SERRANO MENA
2019-04-27

GET A PRACTICAL, HANDS-ON INTRODUCTION TO THE HASKELL LANGUAGE, ITS LIBRARIES AND ENVIRONMENT, AND TO THE FUNCTIONAL PROGRAMMING PARADIGM THAT IS FAST GROWING IN IMPORTANCE IN THE SOFTWARE INDUSTRY. THIS BOOK CONTAINS EXCELLENT COVERAGE OF THE HASKELL ECOSYSTEM AND SUPPORTING TOOLS, INCLUDE CABAL AND STACK FOR MANAGING PROJECTS, HUNIT AND QUICKCHECK FOR SOFTWARE TESTING, THE SPOCK FRAMEWORK FOR DEVELOPING WEB APPLICATIONS, PERSISTENT AND ESQUELETO FOR DATABASE ACCESS, AND PARALLEL AND DISTRIBUTED PROGRAMMING LIBRARIES. YOU'LL SEE HOW FUNCTIONAL PROGRAMMING IS GATHERING MOMENTUM, ALLOWING YOU TO EXPRESS YOURSELF IN A MORE CONCISE WAY, REDUCING BOILERPLATE, AND INCREASING THE SAFETY OF YOUR CODE. HASKELL IS AN ELEGANT AND NOISE-FREE PURE FUNCTIONAL LANGUAGE WITH A LONG HISTORY, HAVING A HUGE NUMBER OF LIBRARY CONTRIBUTORS AND AN ACTIVE COMMUNITY. THIS MAKES HASKELL THE BEST TOOL FOR BOTH LEARNING AND APPLYING FUNCTIONAL PROGRAMMING, AND PRACTICAL HASKELL TAKES ADVANTAGE OF THIS TO SHOW OFF THE LANGUAGE AND WHAT IT CAN DO. WHAT YOU WILL LEARN GET STARTED PROGRAMMING WITH HASKELL EXAMINE THE DIFFERENT PARTS OF THE LANGUAGE GAIN AN OVERVIEW OF THE MOST IMPORTANT LIBRARIES AND TOOLS IN THE HASKELL ECOSYSTEM APPLY FUNCTIONAL PATTERNS IN REAL-WORLD SCENARIOS UNDERSTAND MONADS AND MONAD TRANSFORMERS

PROFICIENTLY USE LAZINESS AND RESOURCE MANAGEMENT WHO THIS BOOK IS FOR EXPERIENCED PROGRAMMERS WHO MAY BE NEW TO THE HASKELL PROGRAMMING LANGUAGE. HOWEVER, SOME PRIOR EXPOSURE TO HASKELL IS RECOMMENDED.

DEVELOPING WEB APPLICATIONS - RALPH MOSELEY
2011-01-01

MARKET_Desc: BOTH UNDERGRADUATE AND MASTERS COURSE STUDENTS TAKING MODULES WITH TITLES SUCH AS WEBSITE DEVELOPMENT AND INTERNET PROGRAMMING. PROGRAMMERS MIGRATING TO THE WEB AND GENERAL READERSHIP INTERESTED IN DEVELOPING APPLICATIONS WHICH SPREAD OVER SEVERAL TECHNOLOGIES. SPECIAL FEATURES: * STUDENTS WILL NEED LITTLE PREVIOUS PROGRAMMING EXPERIENCE.* INCLUDES HTML, CSS AND COOKIES/SESSION, JAVASCRIPT, DHTML, XML AND XSL/T.* ALSO INCLUDES STRONG AND TIMELY COVERAGE OF NEW AND IMPORTANT AREAS SUCH AS PHP5, MYSQL AND MOBILE TECHNOLOGIES.* FOCUSES ON OPEN SOURCE AND FREELY AVAILABLE SOFTWARE FOR USE, INCLUDING APACHE SERVER, PHP AND MYSQL.* DEFINES THE SURROUNDING CONTEXT ALLOWING STUDENTS TO SEE HOW THE TECHNOLOGIES FIT TOGETHER RATHER THAN EXISTING AS ISOLATED UNITS.* STRONG PEDAGOGICAL FEATURES INCLUDING WORKSHOPS AND EXERCISES, ULTIMATELY LEADING TO THE CREATION OF A NUMBER OF APPLICATIONS AT THE BOOK S END, WHICH DEPEND UPON THE STUDENT S INGENUITY TO COMPLETE.* ENCOURAGES A CREATIVE RATHER THAN A FORMAL APPROACH TO DEVELOPING APPLICATIONS.* INCLUDES TOPICS SUCH AS WEBSITE DESIGN ISSUES, PLANNING A WEBSITE NAVIGATION.* A CHAPTER INTRODUCING CGI AND PERL PROGRAMMING. ABOUT THE BOOK: DEVELOPING WEB APPLICATIONS PRESENTS SCRIPT WRITING AND GOOD PROGRAMMING PRACTICE BUT ALSO ALLOWS STUDENTS TO SEE HOW THE INDIVIDUAL TECHNOLOGIES FIT TOGETHER. IT INCLUDES RECENT TECHNICAL DEVELOPMENTS TO PROVIDE A PRACTICAL AND MODERN INTRODUCTION TO BUILDING WEB APPLICATIONS. ASSUMING NO PRIOR PROGRAMMING EXPERIENCE, THIS CONCISE, ACCESSIBLE BOOK ENSURES THAT ESSENTIAL CONCEPTS ON THE CLIENT SIDE ARE QUICKLY GRASPED, AND GOES ON TO EXAMINE THE SERVER ENVIRONMENT AND AVAILABLE LANGUAGES, INCLUDING DISCUSSION OF DYNAMIC, MODERN SCRIPTING LANGUAGES SUCH AS PHP. NETWORK AND SECURITY ISSUES ARE ALSO DISCUSSED. THE AIM OF THIS

BOOK IS TO DELIVER EXACTLY WHAT IS NEEDED TO START PRODUCING WORKING APPLICATIONS AS SOON AS POSSIBLE -- AND HAVE FUN ALONG THE WAY. IDEAL FOR COURSE USE OR SELF-STUDY, THIS BOOK INCLUDES PRACTICAL SUGGESTIONS FOR MINI-PROJECTS WHICH ENCOURAGE THE READER TO EXPLORE HIS OR HER OWN IMAGINATIVE SOLUTIONS, AS WELL AS MORE THEORETICAL END-OF-CHAPTER QUESTIONS. IT CAN ALSO EASILY BE USED AS A REFERENCE WORK AS EACH SECTION IS SELF-CONTAINED, AMPLIFYING THE KEY ASPECTS OF ITS PARTICULAR TOPIC. MOST SOFTWARE COVERED IS FREELY AVAILABLE IN THE PUBLIC DOMAIN AND NO PARTICULAR DEVELOPMENT ENVIRONMENTS ARE REQUIRED. IT IS A DIRECT, CONTEMPORARY AND EXTREMELY USEFUL RESOURCE FOR ANYONE INTERESTED IN LEARNING HOW TO PROGRAM APPLICATIONS FOR THE WORLD WIDE WEB.

MASTERING DJANGO: CORE - NIGEL GEORGE 2016-12-23
DELIVERS ABSOLUTELY EVERYTHING YOU WILL EVER NEED TO KNOW TO BECOME A MASTER DJANGO PROGRAMMER ABOUT THIS BOOK GAIN A COMPLETE UNDERSTANDING OF DJANGO—THE MOST POPULAR, PYTHON-BASED WEB FRAMEWORK IN THE WORLD GAIN THE SKILLS TO SUCCESSFULLY DESIGNING, DEVELOPING, AND DEPLOYING YOUR APP THIS BOOK IS PACKAGED WITH FULLY DESCRIBED CODE SO YOU CAN LEARN THE FUNDAMENTALS AND THE ADVANCED TOPICS TO GET A COMPLETE UNDERSTANDING OF ALL OF DJANGO'S CORE FUNCTIONS WHO THIS BOOK IS FOR THIS BOOK ASSUMES YOU HAVE A BASIC UNDERSTANDING OF THE INTERNET AND PROGRAMMING. EXPERIENCE WITH PYTHON OR DJANGO WOULD BE AN ADVANTAGE, BUT IS NOT NECESSARY. IT IS IDEAL FOR BEGINNER TO INTERMEDIATE PROGRAMMERS LOOKING FOR A FAST, SECURE, SCALABLE, AND MAINTAINABLE ALTERNATIVE WEB DEVELOPMENT PLATFORM TO THOSE BASED ON PHP, JAVA, AND DOTNET. WHAT YOU WILL LEARN USE DJANGO TO ACCESS USER-SUBMITTED FORM DATA, VALIDATE IT, AND WORK WITH IT GET TO KNOW ADVANCED URLCONF TIPS AND TRICKS EXTEND DJANGO'S TEMPLATE SYSTEM WITH CUSTOM CODE DEFINE MODELS AND USE THE DATABASE API TO CREATE, RETRIEVE, UPDATE, AND DELETE RECORDS FULLY EXTEND AND CUSTOMIZE THE DEFAULT IMPLEMENTATION AS PER YOUR PROJECT'S NEEDS TEST AND DEPLOY YOUR DJANGO APPLICATION GET TO KNOW MORE ABOUT DJANGO'S SESSION, CACHE FRAMEWORK, AND MIDDLEWARE IN DETAIL MASTERING DJANGO: CORE IS A COMPLETELY REVISED AND UPDATED VERSION OF THE ORIGINAL DJANGO BOOK, WRITTEN BY ADRIAN HOLOVATY AND JACOB KAPLAN-MOSS - THE CREATORS OF DJANGO. THE MAIN GOAL OF THIS BOOK IS TO MAKE YOU A DJANGO EXPERT. BY READING THIS BOOK, YOU'LL LEARN THE SKILLS NEEDED TO DEVELOP POWERFUL WEBSITES QUICKLY, WITH CODE THAT IS CLEAN AND EASY TO MAINTAIN. THIS BOOK IS ALSO A PROGRAMMER'S MANUAL THAT PROVIDES COMPLETE COVERAGE OF THE CURRENT LONG TERM SUPPORT (LTS) VERSION OF DJANGO. FOR DEVELOPERS CREATING APPLICATIONS FOR COMMERCIAL AND BUSINESS CRITICAL DEPLOYMENTS, MASTERING DJANGO: CORE PROVIDES A COMPLETE, UP-TO-DATE RESOURCE FOR DJANGO 1.8LTS WITH A STABLE CODE-BASE, SECURITY FIXES AND SUPPORT OUT TO 2018. STYLE AND APPROACH THIS COMPREHENSIVE STEP-BY-STEP PRACTICAL GUIDE OFFERS A THOROUGH UNDERSTANDING OF ALL THE WEB DEVELOPMENT CONCEPTS

RELATED TO DJANGO. IN ADDITION TO EXPLAINING THE FEATURES OF DJANGO, THIS BOOK PROVIDES REAL-WORLD EXPERIENCE ON HOW THESE FEATURES FIT TOGETHER TO BUILD EXTRAORDINARY APPS.

THE HASKELL SCHOOL OF EXPRESSION - PAUL HUDAK 2000-02-28

THIS BOOK TEACHES FUNCTIONAL PROGRAMMING USING HASKELL AND EXAMPLES DRAWN FROM MULTIMEDIA APPLICATIONS.

BASIC CATEGORY THEORY FOR COMPUTER SCIENTISTS - BENJAMIN C. PIERCE 1991-08-07

BASIC CATEGORY THEORY FOR COMPUTER SCIENTISTS PROVIDES A STRAIGHTFORWARD PRESENTATION OF THE BASIC CONSTRUCTIONS AND TERMINOLOGY OF CATEGORY THEORY, INCLUDING LIMITS, FUNCTORS, NATURAL TRANSFORMATIONS, ADJOINTS, AND CARTESIAN CLOSED CATEGORIES. CATEGORY THEORY IS A BRANCH OF PURE MATHEMATICS THAT IS BECOMING AN INCREASINGLY IMPORTANT TOOL IN THEORETICAL COMPUTER SCIENCE, ESPECIALLY IN PROGRAMMING LANGUAGE SEMANTICS, DOMAIN THEORY, AND CONCURRENCY, WHERE IT IS ALREADY A STANDARD LANGUAGE OF DISCOURSE. ASSUMING A MINIMUM OF MATHEMATICAL PREPARATION, BASIC CATEGORY THEORY FOR COMPUTER SCIENTISTS PROVIDES A STRAIGHTFORWARD PRESENTATION OF THE BASIC CONSTRUCTIONS AND TERMINOLOGY OF CATEGORY THEORY, INCLUDING LIMITS, FUNCTORS, NATURAL TRANSFORMATIONS, ADJOINTS, AND CARTESIAN CLOSED CATEGORIES. FOUR CASE STUDIES ILLUSTRATE APPLICATIONS OF CATEGORY THEORY TO PROGRAMMING LANGUAGE DESIGN, SEMANTICS, AND THE SOLUTION OF RECURSIVE DOMAIN EQUATIONS. A BRIEF LITERATURE SURVEY OFFERS SUGGESTIONS FOR FURTHER STUDY IN MORE ADVANCED TEXTS. CONTENTS TUTORIAL • APPLICATIONS • FURTHER READING
HASKELL COOKBOOK - YOGESH SAJANIKAR 2017-09-25
SAVE TIME AND BUILD FAST, FUNCTIONAL, AND CONCURRENT APPLICATION USING HASKELL ABOUT THIS BOOK COMPREHENSIVE GUIDE FOR ESTABLISHING A STRONG FOUNDATION IN HASKELL AND DEVELOPING PRAGMATIC CODE CREATE A FULL FLEDGED WEB APPLICATION USING HASKELL WORK WITH LENS, HASKELL EXTENSIONS, AND WRITE CODE FOR CONCURRENT AND DISTRIBUTED APPLICATIONS WHO THIS BOOK IS FOR THIS BOOK IS TARGETED AT READERS WHO WISH TO LEARN THE HASKELL LANGUAGE. IF YOU ARE A BEGINNER, HASKELL COOKBOOK WILL GET YOU STARTED. IF YOU ARE EXPERIENCED, IT WILL EXPAND YOUR KNOWLEDGE BASE. A BASIC KNOWLEDGE OF PROGRAMMING WILL BE HELPFUL. WHAT YOU WILL LEARN USE FUNCTIONAL DATA STRUCTURES AND ALGORITHMS TO SOLVE PROBLEMS UNDERSTAND THE INTRICACIES OF THE TYPE SYSTEM CREATE A SIMPLE PARSER FOR INTEGER EXPRESSIONS WITH ADDITIONS BUILD HIGH-PERFORMANCE WEB SERVICES WITH HASKELL MASTER MECHANISMS FOR CONCURRENCY AND PARALLELISM IN HASKELL PERFORM PARSING AND HANDLE SCARCE RESOURCES SUCH AS FILESYSTEM HANDLES ORGANIZE YOUR PROGRAMS BY CREATING YOUR OWN TYPES AND TYPE CLASSES IN DETAIL HASKELL IS A PURELY FUNCTIONAL LANGUAGE THAT HAS THE GREAT ABILITY TO DEVELOP LARGE AND DIFFICULT, BUT EASILY MAINTAINABLE SOFTWARE. HASKELL COOKBOOK PROVIDES RECIPES THAT START BY ILLUSTRATING THE

PRINCIPLES OF FUNCTIONAL PROGRAMMING IN HASKELL, AND THEN GRADUALLY BUILD UP YOUR EXPERTISE IN CREATING INDUSTRIAL-STRENGTH PROGRAMS TO ACCOMPLISH ANY GOAL. THE BOOK COVERS TOPICS SUCH AS FUNCTORS, APPLICATIVES, MONADS, AND TRANSFORMERS. YOU WILL LEARN VARIOUS WAYS TO HANDLE STATE IN YOUR APPLICATION AND EXPLORE ADVANCED TOPICS SUCH AS GENERALIZED ALGEBRAIC DATA TYPES, HIGHER KIND TYPES, EXISTENTIAL TYPES, AND TYPE FAMILIES. THE BOOK WILL DISCUSS THE ASSOCIATION OF LENSES WITH TYPE CLASSES SUCH AS FUNCTOR, FOLDABLE, AND TRAVERSABLE TO HELP YOU MANAGE DEEP DATA STRUCTURES. WITH THE HELP OF THE WIDE SELECTION OF EXAMPLES IN THIS BOOK, YOU WILL BE ABLE TO UPGRADE YOUR HASKELL PROGRAMMING SKILLS AND DEVELOP SCALABLE SOFTWARE IDIOMATICALLY. STYLE AND APPROACH THE BOOK FOLLOWS A RECIPE-BASED APPROACH. EACH RECIPE ADDRESSES SPECIFIC PROBLEMS AND ISSUES. THE RECIPES PROVIDE DISCUSSIONS AND INSIGHTS TO EXPLAIN THESE PROBLEMS.

SEVEN WEB FRAMEWORKS IN SEVEN WEEKS - JACK MOFFITT 2014

WHETHER YOU NEED A NEW TOOL OR JUST INSPIRATION, SEVEN WEB FRAMEWORKS IN SEVEN WEEKS EXPLORES MODERN OPTIONS, GIVING YOU A TASTE OF EACH WITH IDEAS THAT WILL HELP YOU CREATE BETTER APPS. YOU'LL SEE FRAMEWORKS THAT LEVERAGE MODERN PROGRAMMING LANGUAGES, EMPLOY UNIQUE ARCHITECTURES, LIVE CLIENT-SIDE INSTEAD OF SERVER-SIDE, OR EMBRACE TYPE SYSTEMS. YOU'LL SEE EVERYTHING FROM FAMILIAR RUBY AND JAVASCRIPT TO THE MORE EXOTIC ERLANG, HASKELL, AND CLOJURE. THE RAPID EVOLUTION OF WEB APPS DEMANDS INNOVATIVE SOLUTIONS: THIS SURVEY OF FRAMEWORKS AND THEIR UNIQUE PERSPECTIVES WILL INSPIRE YOU AND GET YOU THINKING IN NEW WAYS TO MEET THE CHALLENGES YOU FACE DAILY. THIS BOOK COVERS SEVEN WEB FRAMEWORKS THAT ARE INFLUENCING MODERN WEB APPLICATIONS AND CHANGING WEB DEVELOPMENT: SINATRA, CANJS, ANGULARJS, RING, WEBMACHINE, YESOD, IMMUTANT. EACH OF THESE WEB FRAMEWORKS BRINGS UNIQUE AND POWERFUL IDEAS TO BEAR ON BUILDING APPS. EMBRACE THE SIMPLICITY OF SINATRA, WHICH SHEDS THE TRAPPINGS OF LARGE FRAMEWORKS AND GETS BACK TO BASICS WITH RUBY. LIVE IN THE CLIENT WITH CANJS, AND CREATE APPS WITH JAVASCRIPT IN THE BROWSER. BE DECLARATIVE WITH ANGULARJS; SAY WHAT YOU WANT, NOT HOW TO DO IT, WITH A MIXTURE OF DECLARATIVE HTML AND JAVASCRIPT. TURN THE WEB INTO DATA WITH RING, AND USE CLOJURE TO MAKE DATA YOUR PUPPET. BECOME A MASTER OF ADVANCED HTTP WITH WEBMACHINE, AND FOCUS THE POWER OF ERLANG. PROVE WEB THEOREMS WITH YESOD; SEE HOW HASKELL'S ADVANCED TYPE SYSTEM ISN'T JUST FOR ACADEMICS. DEVELOP IN LUXURY WITH IMMUTANT, AN ENLIGHTENED TAKE ON THE ENTERPRISE FRAMEWORK. SEVEN WEB FRAMEWORKS WILL INFLUENCE YOUR WORK, NO MATTER WHICH FRAMEWORK YOU CURRENTLY USE. WELCOME TO A WIDER WEB. WHAT YOU NEED: YOU'LL NEED WINDOWS, MACOS X OR LINUX, ALONG WITH YOUR FAVORITE WEB BROWSER. EACH CHAPTER WILL COVER WHAT YOU NEED TO DOWNLOAD AND WHICH LANGUAGE VERSIONS ARE REQUIRED.

REAL WORLD HASKELL - BRYAN O'SULLIVAN 2008-11-15

THIS EASY-TO-USE, FAST-MOVING TUTORIAL INTRODUCES YOU TO FUNCTIONAL PROGRAMMING WITH HASKELL. YOU'LL LEARN HOW TO USE HASKELL IN A VARIETY OF PRACTICAL WAYS, FROM SHORT SCRIPTS TO LARGE AND DEMANDING APPLICATIONS. REAL WORLD HASKELL TAKES YOU THROUGH THE BASICS OF FUNCTIONAL PROGRAMMING AT A BRISK PACE, AND THEN HELPS YOU INCREASE YOUR UNDERSTANDING OF HASKELL IN REAL-WORLD ISSUES LIKE I/O, PERFORMANCE, DEALING WITH DATA, CONCURRENCY, AND MORE AS YOU MOVE THROUGH EACH CHAPTER.

OURS TO HACK AND TO OWN - TREBOR SCHOLZ 2017

WITH THE ROLLBACK OF NET NEUTRALITY, PLATFORM COOPERATIVISM BECOMES EVEN MORE PRESSING: IN ONE VOLUME, SOME OF THE MOST COGENT THINKERS AND DOERS ON THE SUBJECT OF THE COOPTATION OF THE INTERNET, AND HOW WE CAN RESIST AND REVERSE THE PROCESS.

LEARN YOU SOME ERLANG FOR GREAT GOOD! - FRED HEBERT 2013-01-13

ERLANG IS THE LANGUAGE OF CHOICE FOR PROGRAMMERS WHO WANT TO WRITE ROBUST, CONCURRENT APPLICATIONS, BUT ITS STRANGE SYNTAX AND FUNCTIONAL DESIGN CAN INTIMIDATE THE UNINITIATED. LUCKILY, THERE'S A NEW WEAPON IN THE BATTLE AGAINST ERLANG-PHOBIA: LEARN YOU SOME ERLANG FOR GREAT GOOD! ERLANG MAESTRO FRED HEBERT STARTS SLOW AND EASES YOU INTO THE BASICS: YOU'LL LEARN ABOUT ERLANG'S UNORTHODOX SYNTAX, ITS DATA STRUCTURES, ITS TYPE SYSTEM (OR LACK THEREOF!), AND BASIC FUNCTIONAL PROGRAMMING TECHNIQUES. ONCE YOU'VE WRAPPED YOUR HEAD AROUND THE SIMPLE STUFF, YOU'LL TACKLE THE REAL MEAT-AND-POTATOES OF THE LANGUAGE: CONCURRENCY, DISTRIBUTED COMPUTING, HOT CODE LOADING, AND ALL THE OTHER DARK MAGIC THAT MAKES ERLANG SUCH A HOT TOPIC AMONG TODAY'S SAVVY DEVELOPERS. AS YOU DIVE INTO ERLANG'S FUNCTIONAL FANTASY WORLD, YOU'LL LEARN ABOUT: -TESTING YOUR APPLICATIONS WITH EUNIT AND COMMON TEST -BUILDING AND RELEASING YOUR APPLICATIONS WITH THE OTP FRAMEWORK -PASSING MESSAGES, RAISING ERRORS, AND STARTING/STOPPING PROCESSES OVER MANY NODES -STORING AND RETRIEVING DATA USING MNESIA AND ETS -NETWORK PROGRAMMING WITH TCP, UDP, AND THE INET MODULE -THE SIMPLE JOYS AND POTENTIAL PITFALLS OF WRITING DISTRIBUTED, CONCURRENT APPLICATIONS PACKED WITH LIGHTEARTED ILLUSTRATIONS AND JUST THE RIGHT MIX OF OFFBEAT AND PRACTICAL EXAMPLE PROGRAMS, LEARN YOU SOME ERLANG FOR GREAT GOOD! IS THE PERFECT ENTRY POINT INTO THE SOMETIMES-CRAZY, ALWAYS-THRILLING WORLD OF ERLANG.

WHAT I WISH I KNEW WHEN LEARNING HASKELL - STEPHEN DIEHL 2020-02-16

HASKELL IS AN ADVANCED GENERAL PURPOSE PROGRAMMING LANGUAGE. THIS TUTORIAL COVERS ALL ASPECTS OF HASKELL DEVELOPMENT FROM FOUNDATIONS TO COMPILER DEVELOPMENT. MONADS MONAD TRANSFORMERS LANGUAGE EXTENSIONS TYPE CLASSES LAZINESS PRELUDE STRINGS APPLICATIVES ERROR HANDLING ADVANCED MONADS QUANTIFICATION GENERALIZED ALGEBRAIC DATA TYPES INTERPRETERS TESTING TYPE

FAMILIES PROMOTION GENERICS MATHEMATICS DATA
STRUCTURES FOREIGN FUNCTION INTERFACE CONCURRENCY
AND PARALLELISM GRAPHICS PARSERS STREAM
PROCESSING CRYPTOGRAPHY DATE AND TIME DATA FORMATS
AND SERIALISATION NETWORK AND WEB
PROGRAMMING DATABASES GHC COMPILER PROFILING COMPILER
DEVELOPMENT TEMPLATE HASKELL CATEGORY THEORY
HANDS-ON DESIGN PATTERNS WITH KOTLIN - ALEXEY SOSHIN
2018-06-15

MAKE THE MOST OF KOTLIN BY LEVERAGING DESIGN PATTERNS
AND BEST PRACTICES TO BUILD SCALABLE AND HIGH
PERFORMING APPS KEY FEATURES UNDERSTAND TRADITIONAL
GOF DESIGN PATTERNS TO APPLY GENERIC SOLUTIONS SHIFT
FROM OOP TO FP; COVERING REACTIVE AND CONCURRENT
PATTERNS IN A STEP-BY-STEP MANNER CHOOSE THE BEST
MICROSERVICES ARCHITECTURE AND MVC FOR YOUR
DEVELOPMENT ENVIRONMENT BOOK DESCRIPTION DESIGN
PATTERNS ENABLE YOU AS A DEVELOPER TO SPEED UP THE
DEVELOPMENT PROCESS BY PROVIDING YOU WITH PROVEN
DEVELOPMENT PARADIGMS. REUSING DESIGN PATTERNS HELPS
PREVENT COMPLEX ISSUES THAT CAN CAUSE MAJOR
PROBLEMS, IMPROVES YOUR CODE BASE, PROMOTES CODE
REUSE, AND MAKES AN ARCHITECTURE MORE ROBUST. THE
MISSION OF THIS BOOK IS TO EASE THE ADOPTION OF DESIGN
PATTERNS IN KOTLIN AND PROVIDE GOOD PRACTICES FOR
PROGRAMMERS. THE BOOK BEGINS BY SHOWING YOU THE
PRACTICAL ASPECTS OF SMARTER CODING IN KOTLIN,
EXPLAINING THE BASIC KOTLIN SYNTAX AND THE IMPACT OF
DESIGN PATTERNS. FROM THERE, THE BOOK PROVIDES AN IN-
DEPTH EXPLANATION OF THE CLASSICAL DESIGN PATTERNS OF
CREATIONAL, STRUCTURAL, AND BEHAVIORAL FAMILIES,
BEFORE HEADING INTO FUNCTIONAL PROGRAMMING. IT THEN
TAKES YOU THROUGH REACTIVE AND CONCURRENT PATTERNS,
TEACHING YOU ABOUT USING STREAMS, THREADS, AND
COROUTINES TO WRITE BETTER CODE ALONG THE WAY BY
THE END OF THE BOOK, YOU WILL BE ABLE TO EFFICIENTLY
ADDRESS COMMON PROBLEMS FACED WHILE DEVELOPING
APPLICATIONS AND BE COMFORTABLE WORKING ON SCALABLE
AND MAINTAINABLE PROJECTS OF ANY SIZE. WHAT YOU WILL
LEARN GET TO GRIPS WITH KOTLIN PRINCIPLES, INCLUDING ITS
STRENGTHS AND WEAKNESSES UNDERSTAND CLASSICAL DESIGN
PATTERNS IN KOTLIN EXPLORE FUNCTIONAL PROGRAMMING
USING BUILT-IN FEATURES OF KOTLIN SOLVE REAL-WORLD
PROBLEMS USING REACTIVE AND CONCURRENT DESIGN
PATTERNS USE THREADS AND COROUTINES TO SIMPLIFY
CONCURRENT CODE FLOW UNDERSTAND ANTIPATTERNS TO
WRITE CLEAN KOTLIN CODE, AVOIDING COMMON PITFALLS
LEARN ABOUT THE DESIGN CONSIDERATIONS NECESSARY WHILE
CHOOSING BETWEEN ARCHITECTURES WHO THIS BOOK IS FOR
THIS BOOK IS FOR DEVELOPERS WHO WOULD LIKE TO MASTER
DESIGN PATTERNS WITH KOTLIN TO BUILD EFFICIENT AND
SCALABLE APPLICATIONS. BASIC JAVA OR KOTLIN
PROGRAMMING KNOWLEDGE IS ASSUMED

HASKELL 98 LANGUAGE AND LIBRARIES - SIMON PEYTON
JONES 2003-04-10

HASKELL IS THE WORLD'S LEADING LAZY FUNCTIONAL
PROGRAMMING LANGUAGE, WIDELY USED FOR TEACHING,
RESEARCH, AND APPLICATIONS. THE LANGUAGE CONTINUES TO
DEVELOP RAPIDLY, BUT IN 1998 THE COMMUNITY DECIDED TO

CAPTURE A STABLE SNAPSHOT OF THE LANGUAGE: HASKELL
98. ALL HASKELL COMPILERS SUPPORT HASKELL 98, SO
PRACTITIONERS AND EDUCATORS ALIKE HAVE A STABLE BASE
FOR THEIR WORK. THIS BOOK CONSTITUTES THE AGREED
DEFINITION OF HASKELL 98, BOTH THE LANGUAGE ITSELF AND
ITS SUPPORTING LIBRARIES, AND SHOULD BE A STANDARD
REFERENCE WORK FOR ANYONE INVOLVED IN RESEARCH,
TEACHING, OR APPLICATION OF HASKELL.

GET PROGRAMMING WITH Go - ROGER PEPPE 2018-08-27
SUMMARY GET PROGRAMMING WITH Go INTRODUCES YOU TO
THE POWERFUL Go LANGUAGE WITHOUT CONFUSING JARGON
OR HIGH-LEVEL THEORY. BY WORKING THROUGH 32 QUICK-
FIRE LESSONS, YOU'LL QUICKLY PICK UP THE BASICS OF THE
INNOVATIVE Go PROGRAMMING LANGUAGE! PURCHASE OF THE
PRINT BOOK INCLUDES A FREE eBook IN PDF, KINDLE, AND
ePUB FORMATS FROM MANNING PUBLICATIONS. ABOUT THE
TECHNOLOGY Go IS A SMALL PROGRAMMING LANGUAGE
DESIGNED BY GOOGLE TO TACKLE BIG PROBLEMS. LARGE
PROJECTS MEAN LARGE TEAMS WITH PEOPLE OF VARYING
LEVELS OF EXPERIENCE. Go OFFERS A SMALL, YET CAPABLE,
LANGUAGE THAT CAN BE UNDERSTOOD AND USED BY ANYONE,
NO MATTER THEIR EXPERIENCE. ABOUT THE BOOK HOBBYISTS,
NEWCOMERS, AND PROFESSIONALS ALIKE CAN BENEFIT FROM A
FAST, MODERN LANGUAGE; ALL YOU NEED IS THE RIGHT
RESOURCE! GET PROGRAMMING WITH Go PROVIDES A HANDS-
ON INTRODUCTION TO Go LANGUAGE FUNDAMENTALS,
SERVING AS A SOLID FOUNDATION FOR YOUR FUTURE
PROGRAMMING PROJECTS. YOU'LL MASTER Go SYNTAX, WORK
WITH TYPES AND FUNCTIONS, AND EXPLORE BIGGER IDEAS LIKE
STATE AND CONCURRENCY, WITH PLENTY OF EXERCISES TO
LOCK IN WHAT YOU LEARN. WHAT'S INSIDE LANGUAGE
CONCEPTS LIKE SLICES, INTERFACES, POINTERS, AND
CONCURRENCY SEVEN CAPSTONE PROJECTS FEATURING
SPACEFARING GOPHERS, MARS ROVERS, CIPHERS, AND
SIMULATIONS ALL EXAMPLES RUN IN THE Go PLAYGROUND -
NO INSTALLATION REQUIRED! ABOUT THE READER THIS BOOK
IS FOR ANYONE FAMILIAR WITH COMPUTER PROGRAMMING, AS
WELL AS ANYONE WITH THE DESIRE TO LEARN. ABOUT THE
AUTHOR NATHAN YOUNGMAN ORGANIZES THE EDMONTON Go
MEETUP AND IS A MENTOR WITH CANADA LEARNING CODE.
ROGER PEPPE^[?] CONTRIBUTES TO Go AND RUNS THE
NEWCASTLE UPON TYNE Go MEETUP. TABLE OF CONTENTS
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CALCULATOR LOOPS AND BRANCHES VARIABLE SCOPE
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CONVERTING BETWEEN TYPES CAPSTONE: THE VIGEN^[?] RE
CIPHER UNIT 3 - BUILDING BLOCKS FUNCTIONS METHODS
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CONCURRENT PROGRAMMING Goroutines AND

CONCURRENCY CONCURRENT STATE CAPSTONE: LIFE ON MARS
FUNCTIONAL PROGRAMMING IN SCALA - PAUL CHIUSANO
2014-09-01

SUMMARY FUNCTIONAL PROGRAMMING IN SCALA IS A SERIOUS TUTORIAL FOR PROGRAMMERS LOOKING TO LEARN FP AND APPLY IT TO THE EVERYDAY BUSINESS OF CODING. THE BOOK GUIDES READERS FROM BASIC TECHNIQUES TO ADVANCED TOPICS IN A LOGICAL, CONCISE, AND CLEAR PROGRESSION. IN IT, YOU'LL FIND CONCRETE EXAMPLES AND EXERCISES THAT OPEN UP THE WORLD OF FUNCTIONAL PROGRAMMING.

PURCHASE OF THE PRINT BOOK INCLUDES A FREE eBook IN PDF, KINDLE, AND ePUB FORMATS FROM MANNING PUBLICATIONS. ABOUT THE TECHNOLOGY FUNCTIONAL PROGRAMMING (FP) IS A STYLE OF SOFTWARE DEVELOPMENT EMPHASIZING FUNCTIONS THAT DON'T DEPEND ON PROGRAM STATE. FUNCTIONAL CODE IS EASIER TO TEST AND REUSE, SIMPLER TO PARALLELIZE, AND LESS PRONE TO BUGS THAN OTHER CODE. SCALA IS AN EMERGING JVM LANGUAGE THAT OFFERS STRONG SUPPORT FOR FP. ITS FAMILIAR SYNTAX AND TRANSPARENT INTEROPERABILITY WITH JAVA MAKE SCALA A GREAT PLACE TO START LEARNING FP. ABOUT THE BOOK

FUNCTIONAL PROGRAMMING IN SCALA IS A SERIOUS TUTORIAL FOR PROGRAMMERS LOOKING TO LEARN FP AND APPLY IT TO THEIR EVERYDAY WORK. THE BOOK GUIDES READERS FROM BASIC TECHNIQUES TO ADVANCED TOPICS IN A LOGICAL, CONCISE, AND CLEAR PROGRESSION. IN IT, YOU'LL FIND CONCRETE EXAMPLES AND EXERCISES THAT OPEN UP THE WORLD OF FUNCTIONAL PROGRAMMING. THIS BOOK ASSUMES NO PRIOR EXPERIENCE WITH FUNCTIONAL PROGRAMMING. SOME PRIOR EXPOSURE TO SCALA OR JAVA IS HELPFUL. WHAT'S INSIDE FUNCTIONAL PROGRAMMING CONCEPTS THE WHYS AND HOWS OF FP HOW TO WRITE MULTICORE PROGRAMS EXERCISES AND CHECKS FOR UNDERSTANDING ABOUT THE AUTHORS PAUL CHIUSANO AND R[?]NAR BJARNASON ARE RECOGNIZED EXPERTS IN FUNCTIONAL PROGRAMMING WITH SCALA AND ARE CORE CONTRIBUTORS TO THE SCALAZ LIBRARY. TABLE OF CONTENTS PART 1 INTRODUCTION TO FUNCTIONAL PROGRAMMING WHAT IS FUNCTIONAL PROGRAMMING? GETTING STARTED WITH FUNCTIONAL PROGRAMMING IN SCALA FUNCTIONAL DATA STRUCTURES HANDLING ERRORS WITHOUT EXCEPTIONS STRICTNESS AND LAZINESS PURELY FUNCTIONAL STATE PART 2 FUNCTIONAL DESIGN AND COMBINATOR LIBRARIES PURELY FUNCTIONAL PARALLELISM PROPERTY-BASED TESTING PARSER COMBINATORS PART 3 COMMON STRUCTURES IN FUNCTIONAL DESIGN MONOIDS MONADS APPLICATIVE AND TRAVERSABLE FUNCTORS PART 4 EFFECTS AND I/O EXTERNAL EFFECTS AND I/O LOCAL EFFECTS AND MUTABLE STATE STREAM PROCESSING AND INCREMENTAL I/O HASKELL HIGH PERFORMANCE PROGRAMMING - SAMULI THOMASSON 2016-09-26

BOOST THE PERFORMANCE OF YOUR HASKELL APPLICATIONS USING OPTIMIZATION, CONCURRENCY, AND PARALLEL PROGRAMMING ABOUT THIS BOOK EXPLORE THE BENEFITS OF LAZY EVALUATION, COMPILER FEATURES, AND TOOLS AND LIBRARIES DESIGNED FOR HIGH PERFORMANCE WRITE FAST PROGRAMS AT EXTREMELY HIGH LEVELS OF ABSTRACTION WORK THROUGH PRACTICAL EXAMPLES THAT WILL HELP YOU ADDRESS THE CHALLENGES OF WRITING EFFICIENT CODE WHO

THIS BOOK IS FOR TO GET THE MOST OUT OF THIS BOOK, YOU NEED TO HAVE A WORKING KNOWLEDGE OF READING AND WRITING BASIC HASKELL. NO KNOWLEDGE OF PERFORMANCE, OPTIMIZATION, OR CONCURRENCY IS REQUIRED. WHAT YOU WILL LEARN PROGRAM IDIOMATIC HASKELL THAT'S ALSO SURPRISINGLY EFFICIENT IMPROVE PERFORMANCE OF YOUR CODE WITH DATA PARALLELISM, INLINING, AND STRICTNESS ANNOTATIONS PROFILE YOUR PROGRAMS TO IDENTIFY SPACE LEAKS AND MISSED OPPORTUNITIES FOR OPTIMIZATION FIND OUT HOW TO CHOOSE THE MOST EFFICIENT DATA AND CONTROL STRUCTURES OPTIMIZE THE GLASGOW HASKELL COMPILER AND RUNTIME SYSTEM FOR SPECIFIC PROGRAMS SEE HOW TO SMOOTHLY DROP TO LOWER ABSTRACTIONS WHEREVER NECESSARY EXECUTE PROGRAMMING FOR THE GPU WITH ACCELERATE IMPLEMENT PROGRAMMING TO EASILY SCALE TO THE CLOUD WITH CLOUD HASKELL IN DETAIL HASKELL, WITH ITS POWER TO OPTIMIZE THE CODE AND ITS HIGH PERFORMANCE, IS A NATURAL CANDIDATE FOR HIGH PERFORMANCE PROGRAMMING. IT IS ESPECIALLY WELL SUITED TO STACKING ABSTRACTIONS HIGH WITH A RELATIVELY LOW PERFORMANCE COST. THIS BOOK ADDRESSES THE CHALLENGES OF WRITING EFFICIENT CODE WITH LAZY EVALUATION AND TECHNIQUES OFTEN USED TO OPTIMIZE THE PERFORMANCE OF HASKELL PROGRAMS. WE OPEN WITH AN IN-DEPTH LOOK AT THE EVALUATION OF HASKELL EXPRESSIONS AND DISCUSS OPTIMIZATION AND BENCHMARKING. YOU WILL LEARN TO USE PARALLELISM AND WE'LL EXPLORE THE CONCEPT OF STREAMING. WE'LL DEMONSTRATE THE BENEFITS OF RUNNING MULTITHREADED AND CONCURRENT APPLICATIONS. NEXT WE'LL GUIDE YOU THROUGH VARIOUS PROFILING TOOLS THAT WILL HELP YOU IDENTIFY PERFORMANCE ISSUES IN YOUR PROGRAM. WE'LL END OUR JOURNEY BY LOOKING AT GPGPU, CLOUD AND FUNCTIONAL REACTIVE PROGRAMMING IN HASKELL. AT THE VERY END THERE IS A CATALOGUE OF ROBUST LIBRARY RECOMMENDATIONS WITH CODE SAMPLES. BY THE END OF THE BOOK, YOU WILL BE ABLE TO BOOST THE PERFORMANCE OF ANY APP AND PREPARE IT TO STAND UP TO REAL-WORLD PUNISHMENT. STYLE AND APPROACH THIS EASY-TO-FOLLOW GUIDE TEACHES NEW PRACTICES AND TECHNIQUES TO OPTIMIZE YOUR CODE, AND THEN MOVES TOWARDS MORE ADVANCED WAYS TO EFFECTIVELY WRITE EFFICIENT HASKELL CODE. SMALL AND SIMPLE PRACTICAL EXAMPLES WILL HELP YOU TEST THE CONCEPTS YOURSELF, AND YOU WILL BE ABLE TO EASILY ADAPT THEM FOR ANY APPLICATION.

DEVELOPING WEB APPS WITH HASKELL AND YESOD - MICHAEL SNOYMAN 2015-02-17

"THIS FAST-MOVING GUIDE INTRODUCES WEB APPLICATION DEVELOPMENT WITH HASKELL AND YESOD, A POTENT LANGUAGE/Framework COMBINATION THAT SUPPORTS HIGH-PERFORMING APPLICATIONS THAT ARE MODULAR, TYPE-SAFE, AND CONCISE. YOU'LL WORK WITH SEVERAL SAMPLES TO EXPLORE THE WAY YESOD HANDLES WIDGETS, FORMS, PERSISTENCE, AND RESTFUL CONTENT. YOU ALSO GET AN INTRODUCTION TO VARIOUS HASKELL TOOLS TO SUPPLEMENT YOUR BASIC KNOWLEDGE OF THE LANGUAGE. BY THE TIME YOU FINISH THIS BOOK, YOU'LL CREATE A PRODUCTION-QUALITY WEB APPLICATION WITH YESOD'S READY-TO-USE SCAFFOLDING. YOU'LL ALSO EXAMINE SEVERAL REAL-WORLD

EXAMPLES, INCLUDING A BLOG, A WIKI, A JSON WEB SERVICE, AND A SPHINX SEARCH SERVER"--PUBLISHER'S DESCRIPTION.

HASKELL DESIGN PATTERNS - RYAN LEMMER 2015-11-06

TAKE YOUR HASKELL AND FUNCTIONAL PROGRAMMING SKILLS TO THE NEXT LEVEL BY EXPLORING NEW IDIOMS AND DESIGN PATTERNS ABOUT THIS BOOK EXPLORE HASKELL ON A HIGHER LEVEL THROUGH IDIOMS AND PATTERNS GET AN IN-DEPTH LOOK INTO THE THREE STRONGHOLDS OF HASKELL: HIGHER-ORDER FUNCTIONS, THE TYPE SYSTEM, AND LAZY EVALUATION EXPAND YOUR UNDERSTANDING OF HASKELL AND FUNCTIONAL PROGRAMMING, ONE LINE OF EXECUTABLE CODE AT A TIME WHO THIS BOOK IS FOR IF YOU'RE A HASKELL PROGRAMMER WITH A FIRM GRASP OF THE BASICS AND READY TO MOVE MORE DEEPLY INTO MODERN IDIOMATIC HASKELL PROGRAMMING, THEN THIS BOOK IS FOR YOU. WHAT YOU WILL LEARN UNDERSTAND THE RELATIONSHIP BETWEEN THE "GANG OF FOUR" OOP DESIGN PATTERNS AND HASKELL TRY OUT THREE WAYS OF STREAMING I/O: IMPERATIVE, LAZY, AND ITERATEE BASED EXPLORE THE PERVASIVE PATTERN OF COMPOSITION: FROM FUNCTION COMPOSITION THROUGH TO HIGH-LEVEL COMPOSITION WITH LENSES SYNTHESIZE FUNCTOR, APPLICATIVE, ARROW AND MONAD IN A SINGLE CONCEPTUAL FRAMEWORK FOLLOW THE GRAND ARC OF FOLD AND MAP ON LISTS ALL THE WAY TO THEIR CULMINATION IN LENSES AND GENERIC PROGRAMMING GET A TASTE OF TYPE-LEVEL PROGRAMMING IN HASKELL AND HOW THIS RELATES TO DEPENDENTLY-TYPED PROGRAMMING RETRACE THE EVOLUTION, ONE KEY LANGUAGE EXTENSION AT A TIME, OF THE HASKELL TYPE AND KIND SYSTEMS PLACE THE ELEMENTS OF MODERN HASKELL IN A HISTORICAL FRAMEWORK IN DETAIL DESIGN PATTERNS AND IDIOMS CAN WIDEN OUR PERSPECTIVE BY SHOWING US WHERE TO LOOK, WHAT TO LOOK AT, AND ULTIMATELY HOW TO SEE WHAT WE ARE LOOKING AT. AT THEIR BEST, PATTERNS ARE A SHORTHAND METHOD OF COMMUNICATING BETTER WAYS TO CODE (WRITING LESS, MORE MAINTAINABLE, AND MORE EFFICIENT CODE). THIS BOOK STARTS WITH HASKELL 98 AND THROUGH THE LENS OF PATTERNS AND IDIOMS INVESTIGATES THE KEY ADVANCES AND PROGRAMMING STYLES THAT TOGETHER MAKE "MODERN HASKELL". YOUR JOURNEY BEGINS WITH THE THREE PILLARS OF HASKELL. THEN YOU'LL EXPERIENCE THE PROBLEM WITH LAZY I/O, TOGETHER WITH A SOLUTION. YOU'LL ALSO TRACE THE HIERARCHY FORMED BY FUNCTOR, APPLICATIVE, ARROW, AND MONAD. NEXT YOU'LL EXPLORE HOW FOLD AND MAP ARE GENERALIZED BY FOLDABLE AND TRAVERSABLE, WHICH IN TURN IS UNIFIED IN A BROADER CONTEXT BY FUNCTIONAL LENSES. YOU'LL DELVE MORE DEEPLY INTO THE TYPE SYSTEM, WHICH WILL PREPARE YOU FOR AN OVERVIEW OF GENERIC PROGRAMMING. IN CONCLUSION YOU GO TO THE EDGE OF HASKELL BY INVESTIGATING THE KIND SYSTEM AND HOW THIS RELATES TO DEPENDENTLY-TYPED PROGRAMMING. STYLE AND APPROACH USING SHORT PIECES OF EXECUTABLE CODE, THIS GUIDE GRADUALLY EXPLORES THE BROAD PATTERN LANDSCAPE OF MODERN HASKELL. IDEAS ARE PRESENTED IN THEIR HISTORICAL CONTEXT AND ARRIVED AT THROUGH INTUITIVE DERIVATIONS, ALWAYS WITH A FOCUS ON THE PROBLEMS THEY SOLVE.

PARALLEL AND CONCURRENT PROGRAMMING IN HASKELL - SIMON MARLOW 2013-07-12

IF YOU HAVE A WORKING KNOWLEDGE OF HASKELL, THIS HANDS-ON BOOK SHOWS YOU HOW TO USE THE LANGUAGE'S MANY APIS AND FRAMEWORKS FOR WRITING BOTH PARALLEL AND CONCURRENT PROGRAMS. YOU'LL LEARN HOW PARALLELISM EXPLOITS MULTICORE PROCESSORS TO SPEED UP COMPUTATION-HEAVY PROGRAMS, AND HOW CONCURRENCY ENABLES YOU TO WRITE PROGRAMS WITH THREADS FOR MULTIPLE INTERACTIONS. AUTHOR SIMON MARLOW WALKS YOU THROUGH THE PROCESS WITH LOTS OF CODE EXAMPLES THAT YOU CAN RUN, EXPERIMENT WITH, AND EXTEND. DIVIDED INTO SEPARATE SECTIONS ON PARALLEL AND CONCURRENT HASKELL, THIS BOOK ALSO INCLUDES EXERCISES TO HELP YOU BECOME FAMILIAR WITH THE CONCEPTS PRESENTED: EXPRESS PARALLELISM IN HASKELL WITH THE EVAL MONAD AND EVALUATION STRATEGIES PARALLELIZE ORDINARY HASKELL CODE WITH THE PAR MONAD BUILD PARALLEL ARRAY-BASED COMPUTATIONS, USING THE REPA LIBRARY USE THE ACCELERATE LIBRARY TO RUN COMPUTATIONS DIRECTLY ON THE GPU WORK WITH BASIC INTERFACES FOR WRITING CONCURRENT CODE BUILD TREES OF THREADS FOR LARGER AND MORE COMPLEX PROGRAMS LEARN HOW TO BUILD HIGH-SPEED CONCURRENT NETWORK SERVERS WRITE DISTRIBUTED PROGRAMS THAT RUN ON MULTIPLE MACHINES IN A NETWORK

MATHEMATICAL AND ALGORITHMIC FOUNDATIONS OF THE INTERNET - FABRIZIO LUCCIO 2011-07-06

TO TRULY UNDERSTAND HOW THE INTERNET AND WEB ARE ORGANIZED AND FUNCTION REQUIRES KNOWLEDGE OF MATHEMATICS AND COMPUTATION THEORY. MATHEMATICAL AND ALGORITHMIC FOUNDATIONS OF THE INTERNET INTRODUCES THE CONCEPTS AND METHODS UPON WHICH COMPUTER NETWORKS RELY AND EXPLORES THEIR APPLICATIONS TO THE INTERNET AND WEB. THE BOOK OFFERS A UNIQUE APPROACH TO MATHEMATICAL AND ALGORITHMIC CONCEPTS, DEMONSTRATING THEIR UNIVERSALITY BY PRESENTING IDEAS AND EXAMPLES FROM VARIOUS FIELDS, INCLUDING LITERATURE, HISTORY, AND ART. PROGRESSING FROM FUNDAMENTAL CONCEPTS TO MORE SPECIFIC TOPICS AND APPLICATIONS, THE TEXT COVERS COMPUTATIONAL COMPLEXITY AND RANDOMNESS, NETWORKS AND GRAPHS, PARALLEL AND DISTRIBUTED COMPUTING, AND SEARCH ENGINES. WHILE THE MATHEMATICAL TREATMENT IS RIGOROUS, IT IS PRESENTED AT A LEVEL THAT CAN BE GRASPED BY READERS WITH AN ELEMENTARY MATHEMATICAL BACKGROUND. THE AUTHORS ALSO PRESENT A LIGHTER SIDE TO THIS COMPLEX SUBJECT BY ILLUSTRATING HOW MANY OF THE MATHEMATICAL CONCEPTS HAVE COUNTERPARTS IN EVERYDAY LIFE. THE BOOK PROVIDES IN-DEPTH COVERAGE OF THE MATHEMATICAL PREREQUISITES AND ASSEMBLES A COMPLETE PRESENTATION OF HOW COMPUTER NETWORKS FUNCTION. IT IS A USEFUL RESOURCE FOR ANYONE INTERESTED IN THE INNER FUNCTIONING, DESIGN, AND ORGANIZATION OF THE INTERNET.

PEARLS OF FUNCTIONAL ALGORITHM DESIGN - RICHARD BIRD 2010-09-16

RICHARD BIRD TAKES A RADICAL APPROACH TO ALGORITHM DESIGN, NAMELY, DESIGN BY CALCULATION. THESE 30 SHORT CHAPTERS EACH DEAL WITH A PARTICULAR PROGRAMMING PROBLEM DRAWN FROM SOURCES AS DIVERSE AS GAMES AND PUZZLES, INTRIGUING COMBINATORIAL TASKS, AND MORE FAMILIAR AREAS SUCH AS DATA COMPRESSION AND STRING

MATCHING. EACH PEARL STARTS WITH THE STATEMENT OF THE PROBLEM EXPRESSED USING THE FUNCTIONAL PROGRAMMING LANGUAGE HASKELL, A POWERFUL YET SUCCINCT LANGUAGE FOR CAPTURING ALGORITHMIC IDEAS CLEARLY AND SIMPLY. THE NOVEL ASPECT OF THE BOOK IS THAT EACH SOLUTION IS CALCULATED FROM AN INITIAL FORMULATION OF THE PROBLEM IN HASKELL BY APPEALING TO THE LAWS OF FUNCTIONAL PROGRAMMING. PEARLS OF FUNCTIONAL ALGORITHM DESIGN WILL APPEAL TO THE ASPIRING FUNCTIONAL PROGRAMMER, STUDENTS AND TEACHERS INTERESTED IN THE PRINCIPLES OF ALGORITHM DESIGN, AND ANYONE SEEKING TO MASTER THE TECHNIQUES OF REASONING ABOUT PROGRAMS IN AN EQUATIONAL STYLE.

DATA STEWARDSHIP FOR OPEN SCIENCE - BAREND MONS
2018-03-09

DATA STEWARDSHIP FOR OPEN SCIENCE: IMPLEMENTING FAIR PRINCIPLES HAS BEEN WRITTEN WITH THE INTENTION OF MAKING SCIENTISTS, FUNDERS, AND INNOVATORS IN ALL DISCIPLINES AND STAGES OF THEIR PROFESSIONAL ACTIVITIES BROADLY AWARE OF THE NEED, COMPLEXITY, AND CHALLENGES ASSOCIATED WITH OPEN SCIENCE, MODERN SCIENCE COMMUNICATION, AND DATA STEWARDSHIP. THE FAIR PRINCIPLES ARE USED AS A GUIDE THROUGHOUT THE TEXT, AND THIS BOOK SHOULD LEAVE EXPERIMENTALISTS CONSCIOUSLY INCOMPETENT ABOUT DATA STEWARDSHIP AND MOTIVATED TO RESPECT DATA STEWARDS AS REPRESENTATIVES OF A NEW PROFESSION, WHILE POSSIBLY MOTIVATING OTHERS TO CONSIDER A CAREER IN THE FIELD. THE EBOOK, AVAILABLE FOR NO ADDITIONAL COST WHEN YOU BUY THE PAPERBACK, WILL BE UPDATED EVERY 6 MONTHS ON AVERAGE (PROVIDING THAT SIGNIFICANT UPDATES ARE NEEDED OR AVAILABLE). READERS WILL HAVE THE OPPORTUNITY TO CONTRIBUTE MATERIAL TOWARDS THESE UPDATES, AND TO DEVELOP THEIR OWN DATA MANAGEMENT PLANS, VIA THE FREE DATA STEWARDSHIP WIZARD.

SEVEN LANGUAGES IN SEVEN WEEKS - BRUCE TATE 2010
"SEVEN LANGUAGES IN SEVEN WEEKS" PRESENTS A MEANINGFUL EXPLORATION OF SEVEN LANGUAGES WITHIN A SINGLE BOOK. RATHER THAN SERVE AS A COMPLETE REFERENCE OR INSTALLATION GUIDE, THE BOOK HITS WHAT'S ESSENTIAL AND UNIQUE ABOUT EACH LANGUAGE.

THE ARCHITECTURE OF OPEN SOURCE APPLICATIONS - AMY BROWN 2011

BESCHRIJVING VAN VIJFENTWINTIG OPEN SOURCE APPLICATIES.
MASTERING Go - MIHALIS TSOUKALOS 2019-08-29
PUBLISHER'S NOTE: THIS EDITION FROM 2019 IS OUTDATED AND IS NOT COMPATIBLE WITH THE LATEST VERSION OF GO. A NEW THIRD EDITION, UPDATED FOR 2021 AND FEATURING THE LATEST IN GO PROGRAMMING, HAS NOW BEEN PUBLISHED. KEY FEATURES • SECOND EDITION OF THE BESTSELLING GUIDE TO ADVANCED GO PROGRAMMING, EXPANDED TO COVER MACHINE LEARNING, MORE GO PACKAGES AND A RANGE OF MODERN DEVELOPMENT TECHNIQUES • COMPLETES THE GO DEVELOPER'S EDUCATION WITH REAL-WORLD GUIDES TO BUILDING HIGH-PERFORMANCE PRODUCTION SYSTEMS • PACKED WITH PRACTICAL EXAMPLES AND PATTERNS TO APPLY TO YOUR OWN DEVELOPMENT WORK • CLEARLY EXPLAINS GO NUANCES AND FEATURES TO REMOVE THE FRUSTRATION FROM GO DEVELOPMENT BOOK DESCRIPTION OFTEN REFERRED TO

(INCORRECTLY) AS GOLANG, GO IS THE HIGH-PERFORMANCE SYSTEMS LANGUAGE OF THE FUTURE. **MASTERING Go, SECOND EDITION** HELPS YOU BECOME A PRODUCTIVE EXPERT GO PROGRAMMER, BUILDING AND IMPROVING ON THE GROUNDBREAKING FIRST EDITION. **MASTERING Go, SECOND EDITION** SHOWS HOW TO PUT GO TO WORK ON REAL PRODUCTION SYSTEMS. FOR PROGRAMMERS WHO ALREADY KNOW THE GO LANGUAGE BASICS, THIS BOOK PROVIDES EXAMPLES, PATTERNS, AND CLEAR EXPLANATIONS TO HELP YOU DEEPLY UNDERSTAND GO'S CAPABILITIES AND APPLY THEM IN YOUR PROGRAMMING WORK. THE BOOK COVERS THE NUANCES OF GO, WITH IN-DEPTH GUIDES ON TYPES AND STRUCTURES, PACKAGES, CONCURRENCY, NETWORK PROGRAMMING, COMPILER DESIGN, OPTIMIZATION, AND MORE. EACH CHAPTER ENDS WITH EXERCISES AND RESOURCES TO FULLY EMBED YOUR NEW KNOWLEDGE. THIS SECOND EDITION INCLUDES A COMPLETELY NEW CHAPTER ON MACHINE LEARNING IN GO, GUIDING YOU FROM THE FOUNDATION STATISTICS TECHNIQUES THROUGH SIMPLE REGRESSION AND CLUSTERING TO CLASSIFICATION, NEURAL NETWORKS, AND ANOMALY DETECTION. OTHER CHAPTERS ARE EXPANDED TO COVER USING GO WITH DOCKER AND KUBERNETES, GIT, WEBASSEMBLY, JSON, AND MORE. IF YOU TAKE THE GO PROGRAMMING LANGUAGE SERIOUSLY, THE SECOND EDITION OF THIS BOOK IS AN ESSENTIAL GUIDE ON EXPERT TECHNIQUES. WHAT YOU WILL LEARN • CLEAR GUIDANCE ON USING GO FOR PRODUCTION SYSTEMS • DETAILED EXPLANATIONS OF HOW GO INTERNALS WORK, THE DESIGN CHOICES BEHIND THE LANGUAGE, AND HOW TO OPTIMIZE YOUR GO CODE • A FULL GUIDE TO ALL GO DATA TYPES, COMPOSITE TYPES, AND DATA STRUCTURES • MASTER PACKAGES, REFLECTION, AND INTERFACES FOR EFFECTIVE GO PROGRAMMING • BUILD HIGH-PERFORMANCE SYSTEMS NETWORKING CODE, INCLUDING SERVER AND CLIENT-SIDE APPLICATIONS • INTERFACE WITH OTHER SYSTEMS USING WEBASSEMBLY, JSON, AND GRPC • WRITE RELIABLE, HIGH-PERFORMANCE CONCURRENT CODE • BUILD MACHINE LEARNING SYSTEMS IN GO, FROM SIMPLE STATISTICAL REGRESSION TO COMPLEX NEURAL NETWORKS WHO THIS BOOK IS FOR **MASTERING Go, SECOND EDITION** IS FOR GO PROGRAMMERS WHO ALREADY KNOW THE LANGUAGE BASICS, AND WANT TO BECOME EXPERT GO PRACTITIONERS. TABLE OF CONTENTS • GO AND THE OPERATING SYSTEM • UNDERSTANDING GO INTERNALS • WORKING WITH BASIC GO DATA TYPES • THE USES OF COMPOSITE TYPES • HOW TO ENHANCE GO CODE WITH DATA STRUCTURES • WHAT YOU MIGHT NOT KNOW ABOUT GO PACKAGES AND FUNCTIONS • REFLECTION AND INTERFACES FOR ALL SEASONS • TELLING A UNIX SYSTEM WHAT TO DO • CONCURRENCY IN GO: GOROUTINES, CHANNELS, AND PIPELINES • CONCURRENCY IN GO: ADVANCED TOPICS • CODE TESTING, OPTIMIZATION, AND PROFILING • THE FOUNDATIONS OF NETWORK PROGRAMMING IN GO • NETWORK PROGRAMMING: BUILDING YOUR OWN SERVERS AND CLIENTS • MACHINE LEARNING IN GO REVIEW "MASTERING Go - SECOND EDITION IS A MUST-READ FOR DEVELOPERS WANTING TO EXPAND THEIR KNOWLEDGE OF THE LANGUAGE OR WANTING TO PICK IT UP FROM SCRATCH" -- ALEX ELLIS - FOUNDER OF OPENFAAS LTD, CNCF AMBASSADOR

C PROGRAMMING - K. N. KING 2017-07-05

C++ WAS WRITTEN TO HELP PROFESSIONAL C# DEVELOPERS LEARN MODERN C++ PROGRAMMING. THE AIM OF THIS BOOK IS TO LEVERAGE YOUR EXISTING C# KNOWLEDGE IN ORDER TO EXPAND YOUR SKILLS. WHETHER YOU NEED TO USE C++ IN AN UPCOMING PROJECT, OR SIMPLY WANT TO LEARN A NEW LANGUAGE (OR REACQUAINT YOURSELF WITH IT), THIS BOOK WILL HELP YOU LEARN ALL OF THE FUNDAMENTAL PIECES OF C++ SO YOU CAN BEGIN WRITING YOUR OWN C++ PROGRAMS. THIS UPDATED AND EXPANDED SECOND EDITION OF BOOK PROVIDES A USER-FRIENDLY INTRODUCTION TO THE SUBJECT, TAKING A CLEAR STRUCTURAL FRAMEWORK, IT GUIDES THE READER THROUGH THE SUBJECT'S CORE ELEMENTS. A FLOWING WRITING STYLE COMBINES WITH THE USE OF ILLUSTRATIONS AND DIAGRAMS THROUGHOUT THE TEXT TO ENSURE THE READER UNDERSTANDS EVEN THE MOST COMPLEX OF CONCEPTS. THIS SUCCINCT AND ENLIGHTENING OVERVIEW IS A REQUIRED READING FOR ALL THOSE INTERESTED IN THE SUBJECT. WE HOPE YOU FIND THIS BOOK USEFUL IN SHAPING YOUR FUTURE CAREER & BUSINESS.

BEGINNING HASKELL - ALEJANDRO SERRANO MENA
2014-03-05

BEGINNING HASKELL PROVIDES A BROAD-BASED INTRODUCTION TO THE HASKELL LANGUAGE, ITS LIBRARIES AND ENVIRONMENT, AND TO THE FUNCTIONAL PROGRAMMING PARADIGM THAT IS FAST GROWING IN IMPORTANCE IN THE SOFTWARE INDUSTRY. THE BOOK TAKES A PROJECT-BASED APPROACH TO LEARNING THE LANGUAGE THAT IS UNIFIED AROUND THE BUILDING OF A WEB-BASED STOREFRONT. EXCELLENT COVERAGE IS GIVEN TO THE HASKELL ECOSYSTEM AND SUPPORTING TOOLS. THESE INCLUDE THE CABAL BUILD TOOL FOR MANAGING PROJECTS AND MODULES, THE HUNIT AND QUICKCHECK TOOLS FOR SOFTWARE TESTING, THE SCOTTY FRAMEWORK FOR DEVELOPING WEB APPLICATIONS, PERSISTENT AND ESQUELETO FOR DATABASE ACCESS, AND ALSO PARALLEL AND DISTRIBUTED PROGRAMMING LIBRARIES. FUNCTIONAL PROGRAMMING IS GATHERING MOMENTUM, ALLOWING PROGRAMMERS TO EXPRESS THEMSELVES IN A MORE CONCISE WAY, REDUCING BOILERPLATE AND INCREASING THE SAFETY OF CODE. INDEED, MAINSTREAM LANGUAGES SUCH AS C# AND JAVA ARE ADOPTING FEATURES FROM FUNCTIONAL PROGRAMMING, AND FROM LANGUAGES IMPLEMENTING THAT PARADIGM. HASKELL IS AN ELEGANT AND NOISE-FREE PURE FUNCTIONAL LANGUAGE WITH A LONG HISTORY, HAVING A HUGE NUMBER OF LIBRARY CONTRIBUTORS AND AN ACTIVE COMMUNITY. THIS MAKES HASKELL THE BEST TOOL FOR BOTH LEARNING AND APPLYING FUNCTIONAL PROGRAMMING, AND BEGINNING HASKELL THE PERFECT BOOK TO SHOW OFF THE LANGUAGE AND WHAT IT CAN DO. TAKES YOU THROUGH A SERIES OF PROJECTS SHOWING THE DIFFERENT PARTS OF THE LANGUAGE. PROVIDES AN OVERVIEW OF THE MOST IMPORTANT LIBRARIES AND TOOLS IN THE HASKELL ECOSYSTEM. TEACHES YOU HOW TO APPLY FUNCTIONAL PATTERNS IN REAL-WORLD SCENARIOS.

LEARN YOU A HASKELL FOR GREAT GOOD! - MIRAN LIPOVACA
2011-04-15

IT'S ALL IN THE NAME: LEARN YOU A HASKELL FOR GREAT GOOD! IS A HILARIOUS, ILLUSTRATED GUIDE TO THIS COMPLEX FUNCTIONAL LANGUAGE. PACKED WITH THE AUTHOR'S ORIGINAL ARTWORK, POP CULTURE REFERENCES,

AND MOST IMPORTANTLY, USEFUL EXAMPLE CODE, THIS BOOK TEACHES FUNCTIONAL FUNDAMENTALS IN A WAY YOU NEVER THOUGHT POSSIBLE. YOU'LL START WITH THE KID STUFF: BASIC SYNTAX, RECURSION, TYPES AND TYPE CLASSES. THEN ONCE YOU'VE GOT THE BASICS DOWN, THE REAL BLACK BELT MASTER-CLASS BEGINS: YOU'LL LEARN TO USE APPLICATIVE FUNCTORS, MONADS, ZIPPERS, AND ALL THE OTHER MYTHICAL HASKELL CONSTRUCTS YOU'VE ONLY READ ABOUT IN STORYBOOKS. AS YOU WORK YOUR WAY THROUGH THE AUTHOR'S IMAGINATIVE (AND OCCASIONALLY INSANE) EXAMPLES, YOU'LL LEARN TO: -LAUGH IN THE FACE OF SIDE EFFECTS AS YOU WIELD PURELY FUNCTIONAL PROGRAMMING TECHNIQUES -USE THE MAGIC OF HASKELL'S "LAZINESS" TO PLAY WITH INFINITE SETS OF DATA -ORGANIZE YOUR PROGRAMS BY CREATING YOUR OWN TYPES, TYPE CLASSES, AND MODULES -USE HASKELL'S ELEGANT INPUT/OUTPUT SYSTEM TO SHARE THE GENIUS OF YOUR PROGRAMS WITH THE OUTSIDE WORLD SHORT OF EATING THE AUTHOR'S BRAIN, YOU WILL NOT FIND A BETTER WAY TO LEARN THIS POWERFUL LANGUAGE THAN READING LEARN YOU A HASKELL FOR GREAT GOOD!

TYPE-DRIVEN DEVELOPMENT WITH IDRIS - EDWIN BRADY
2017-03-13

SUMMARY TYPE-DRIVEN DEVELOPMENT WITH IDRIS, WRITTEN BY THE CREATOR OF IDRIS, TEACHES YOU HOW TO IMPROVE THE PERFORMANCE AND ACCURACY OF YOUR PROGRAMS BY TAKING ADVANTAGE OF A STATE-OF-THE-ART TYPE SYSTEM. THIS BOOK TEACHES YOU WITH IDRIS, A LANGUAGE DESIGNED TO SUPPORT TYPE-DRIVEN DEVELOPMENT. PURCHASE OF THE PRINT BOOK INCLUDES A FREE eBook IN PDF, KINDLE, AND EPUB FORMATS FROM MANNING PUBLICATIONS. ABOUT THE TECHNOLOGY STOP FIGHTING TYPE ERRORS! TYPE-DRIVEN DEVELOPMENT IS AN APPROACH TO CODING THAT EMBRACES TYPES AS THE FOUNDATION OF YOUR CODE - ESSENTIALLY AS BUILT-IN DOCUMENTATION YOUR COMPILER CAN USE TO CHECK DATA RELATIONSHIPS AND OTHER ASSUMPTIONS. WITH THIS APPROACH, YOU CAN DEFINE SPECIFICATIONS EARLY IN DEVELOPMENT AND WRITE CODE THAT'S EASY TO MAINTAIN, TEST, AND EXTEND. IDRIS IS A HASKELL-LIKE LANGUAGE WITH FIRST-CLASS, DEPENDENT TYPES THAT'S PERFECT FOR LEARNING TYPE-DRIVEN PROGRAMMING TECHNIQUES YOU CAN APPLY IN ANY CODEBASE. ABOUT THE BOOK TYPE-DRIVEN DEVELOPMENT WITH IDRIS TEACHES YOU HOW TO IMPROVE THE PERFORMANCE AND ACCURACY OF YOUR CODE BY TAKING ADVANTAGE OF A STATE-OF-THE-ART TYPE SYSTEM. IN THIS BOOK, YOU'LL LEARN TYPE-DRIVEN DEVELOPMENT OF REAL-WORLD SOFTWARE, AS WELL AS HOW TO HANDLE SIDE EFFECTS, INTERACTION, STATE, AND CONCURRENCY. BY THE END, YOU'LL BE ABLE TO DEVELOP ROBUST AND VERIFIED SOFTWARE IN IDRIS AND APPLY TYPE-DRIVEN DEVELOPMENT METHODS TO OTHER LANGUAGES. WHAT'S INSIDE UNDERSTANDING DEPENDENT TYPES TYPES AS FIRST-CLASS LANGUAGE CONSTRUCTS TYPES AS A GUIDE TO PROGRAM CONSTRUCTION EXPRESSING RELATIONSHIPS BETWEEN DATA ABOUT THE READER WRITTEN FOR PROGRAMMERS WITH KNOWLEDGE OF FUNCTIONAL PROGRAMMING CONCEPTS. ABOUT THE AUTHOR EDWIN BRADY LEADS THE DESIGN AND IMPLEMENTATION OF THE IDRIS LANGUAGE. TABLE OF CONTENTS PART 1 - INTRODUCTION OVERVIEW

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CONCURRENT PROGRAMMING

HASKELL PROGRAMMING FROM FIRST PRINCIPLES -
CHRISTOPHER ALLEN 2016-07-01

HASKELL PROGRAMMING MAKES HASKELL AS CLEAR, PAINLESS,
AND PRACTICAL AS IT CAN BE, WHETHER YOU'RE A BEGINNER
OR AN EXPERIENCED HACKER. LEARNING HASKELL FROM THE
GROUND UP IS EASIER AND WORKS BETTER. WITH OUR
EXERCISE-DRIVEN APPROACH, YOU'LL BUILD ON PREVIOUS
CHAPTERS SUCH THAT BY THE TIME YOU REACH THE
NOTORIOUS MONAD, IT'LL SEEM TRIVIAL.

HASKELL IN DEPTH - VITALY BRAGILEVSKY 2021-07-13
HASKELL IN DEPTH UNLOCKS A NEW LEVEL OF SKILL WITH THIS
CHALLENGING LANGUAGE. GOING BEYOND THE BASICS OF
SYNTAX AND STRUCTURE, THIS BOOK OPENS UP CRITICAL
TOPICS LIKE ADVANCED TYPES, CONCURRENCY, AND DATA
PROCESSING. SUMMARY TURN THE CORNER FROM "HASKELL
STUDENT" TO "HASKELL DEVELOPER." HASKELL IN DEPTH
EXPLORES THE IMPORTANT LANGUAGE FEATURES AND
PROGRAMMING SKILLS YOU'LL NEED TO BUILD PRODUCTION-
QUALITY SOFTWARE USING HASKELL. AND ALONG THE WAY,
YOU'LL PICK UP SOME INTERESTING INSIGHTS INTO WHY
HASKELL LOOKS AND WORKS THE WAY IT DOES. GET READY
TO GO DEEP! PURCHASE OF THE PRINT BOOK INCLUDES A FREE
eBOOK IN PDF, KINDLE, AND ePUB FORMATS FROM MANNING
PUBLICATIONS. ABOUT THE TECHNOLOGY SOFTWARE FOR
HIGH-PRECISION TASKS LIKE FINANCIAL TRANSACTIONS,
DEFENSE SYSTEMS, AND SCIENTIFIC RESEARCH MUST BE
ABSOLUTELY, PROVABLY CORRECT. AS A PURELY
FUNCTIONAL PROGRAMMING LANGUAGE, HASKELL ENFORCES A
MATHEMATICALLY RIGOROUS APPROACH THAT CAN LEAD TO
CONCISE, EFFICIENT, AND BUG-FREE CODE. TO WRITE SUCH
CODE YOU'LL NEED DEEP UNDERSTANDING. YOU CAN GET IT
FROM THIS BOOK! ABOUT THE BOOK HASKELL IN DEPTH
UNLOCKS A NEW LEVEL OF SKILL WITH THIS CHALLENGING
LANGUAGE. GOING BEYOND THE BASICS OF SYNTAX AND
STRUCTURE, THIS BOOK OPENS UP CRITICAL TOPICS LIKE
ADVANCED TYPES, CONCURRENCY, AND DATA PROCESSING.
YOU'LL DISCOVER KEY PARTS OF THE HASKELL ECOSYSTEM
AND MASTER CORE DESIGN PATTERNS THAT WILL TRANSFORM
HOW YOU WRITE SOFTWARE. WHAT'S INSIDE BUILDING
APPLICATIONS, WEB SERVICES, AND NETWORKING APPS USING
SOPHISTICATED LIBRARIES LIKE LENS, SINGLETONS, AND
SERVANT ORGANIZING PROJECTS WITH CABAL AND STACK
ERROR-HANDLING AND TESTING PURE PARALLELISM FOR
MULTICORE PROCESSORS ABOUT THE READER FOR
DEVELOPERS FAMILIAR WITH HASKELL BASICS. ABOUT THE
AUTHOR VITALY BRAGILEVSKY HAS BEEN TEACHING HASKELL

AND FUNCTIONAL PROGRAMMING SINCE 2008. HE IS A MEMBER
OF THE GHC STEERING COMMITTEE. TABLE OF CONTENTS
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DOMAIN MODELING MADE FUNCTIONAL - SCOTT WLASCHIN
2018-01-25

YOU WANT INCREASED CUSTOMER SATISFACTION, FASTER
DEVELOPMENT CYCLES, AND LESS WASTED WORK. DOMAIN-
DRIVEN DESIGN (DDD) COMBINED WITH FUNCTIONAL
PROGRAMMING IS THE INNOVATIVE COMBO THAT WILL GET
YOU THERE. IN THIS PRAGMATIC, DOWN-TO-EARTH GUIDE,
YOU'LL SEE HOW APPLYING THE CORE PRINCIPLES OF
FUNCTIONAL PROGRAMMING CAN RESULT IN SOFTWARE
DESIGNS THAT MODEL REAL-WORLD REQUIREMENTS BOTH
ELEGANTLY AND CONCISELY - OFTEN MORE SO THAN AN
OBJECT-ORIENTED APPROACH. PRACTICAL EXAMPLES IN THE
OPEN-SOURCE F# FUNCTIONAL LANGUAGE, AND EXAMPLES
FROM FAMILIAR BUSINESS DOMAINS, SHOW YOU HOW TO
APPLY THESE TECHNIQUES TO BUILD SOFTWARE THAT IS
BUSINESS-FOCUSED, FLEXIBLE, AND HIGH QUALITY. DOMAIN-
DRIVEN DESIGN IS A WELL-ESTABLISHED APPROACH TO
DESIGNING SOFTWARE THAT ENSURES THAT DOMAIN EXPERTS
AND DEVELOPERS WORK TOGETHER EFFECTIVELY TO CREATE
HIGH-QUALITY SOFTWARE. THIS BOOK IS THE FIRST TO
COMBINE DDD WITH TECHNIQUES FROM STATICALLY TYPED
FUNCTIONAL PROGRAMMING. THIS BOOK IS PERFECT FOR
NEWCOMERS TO DDD OR FUNCTIONAL PROGRAMMING - ALL
THE TECHNIQUES YOU NEED WILL BE INTRODUCED AND
EXPLAINED. MODEL A COMPLEX DOMAIN ACCURATELY USING
THE F# TYPE SYSTEM, CREATING COMPILABLE CODE THAT IS
ALSO READABLE DOCUMENTATION---ENSURING THAT THE
CODE AND DESIGN NEVER GET OUT OF SYNC. ENCODE BUSINESS
RULES IN THE DESIGN SO THAT YOU HAVE "COMPILE-TIME UNIT
TESTS," AND ELIMINATE MANY POTENTIAL BUGS BY MAKING
ILLEGAL STATES UNREPRESENTABLE. ASSEMBLE A SERIES OF
SMALL, TESTABLE FUNCTIONS INTO A COMPLETE USE CASE,
AND COMPOSE THESE INDIVIDUAL SCENARIOS INTO A LARGE-
SCALE DESIGN. DISCOVER WHY THE COMBINATION OF
FUNCTIONAL PROGRAMMING AND DDD LEADS NATURALLY TO
SERVICE-ORIENTED AND HEXAGONAL ARCHITECTURES. FINALLY,
CREATE A FUNCTIONAL DOMAIN MODEL THAT WORKS WITH
TRADITIONAL DATABASES, NOSQL, AND EVENT STORES, AND
SAFELY EXPOSE YOUR DOMAIN VIA A WEBSITE OR API.
SOLVE REAL PROBLEMS BY FOCUSING ON REAL-WORLD
REQUIREMENTS FOR YOUR SOFTWARE. WHAT YOU NEED: THE
CODE IN THIS BOOK IS DESIGNED TO BE RUN INTERACTIVELY ON
WINDOWS, MAC AND LINUX. YOU WILL NEED A RECENT

VERSION OF F# (4.0 OR GREATER), AND THE APPROPRIATE .NET RUNTIME FOR YOUR PLATFORM. FULL INSTALLATION INSTRUCTIONS FOR ALL PLATFORMS AT FSHARP.ORG.

Go Systems Programming - MIHALIS TSOUKALOS
2017-09-26

LEARNING THE NEW SYSTEM'S PROGRAMMING LANGUAGE FOR ALL UNIX-TYPE SYSTEMS ABOUT THIS BOOK LEARN HOW TO WRITE SYSTEM'S LEVEL CODE IN GOLANG, SIMILAR TO UNIX/LINUX SYSTEMS CODE RAMP UP IN GO QUICKLY DEEP DIVE INTO GOROUTINES AND GO CONCURRENCY TO BE ABLE TO TAKE ADVANTAGE OF GO SERVER-LEVEL CONSTRUCTS WHO THIS BOOK IS FOR INTERMEDIATE LINUX AND GENERAL UNIX PROGRAMMERS. NETWORK PROGRAMMERS FROM BEGINNERS TO ADVANCED PRACTITIONERS. C AND C++ PROGRAMMERS INTERESTED IN DIFFERENT APPROACHES TO CONCURRENCY AND LINUX SYSTEMS PROGRAMMING. WHAT YOU WILL LEARN EXPLORE THE GO LANGUAGE FROM THE STANDPOINT OF A DEVELOPER CONVERSANT WITH UNIX, LINUX, AND SO ON UNDERSTAND GOROUTINES, THE LIGHTWEIGHT THREADS USED FOR SYSTEMS AND CONCURRENT APPLICATIONS LEARN HOW TO TRANSLATE UNIX AND LINUX SYSTEMS CODE IN C TO GOLANG CODE HOW TO WRITE FAST AND LIGHTWEIGHT SERVER CODE DIVE INTO CONCURRENCY WITH GO WRITE LOW-LEVEL NETWORKING CODE IN DETAIL GO IS THE NEW SYSTEMS PROGRAMMING LANGUAGE FOR LINUX AND UNIX SYSTEMS. IT IS ALSO THE LANGUAGE IN WHICH SOME OF THE MOST PROMINENT CLOUD-LEVEL SYSTEMS HAVE BEEN WRITTEN, SUCH AS DOCKER. WHERE C PROGRAMMERS USED TO RULE, GO PROGRAMMERS ARE IN DEMAND TO WRITE HIGHLY OPTIMIZED SYSTEMS PROGRAMMING CODE. CREATED BY SOME OF THE ORIGINAL DESIGNERS OF C AND UNIX, GO EXPANDS THE SYSTEMS PROGRAMMERS TOOLKIT AND ADDS A MATURE, CLEAR PROGRAMMING LANGUAGE. TRADITIONAL SYSTEM APPLICATIONS BECOME EASIER TO WRITE SINCE POINTERS ARE NOT RELEVANT AND GARBAGE COLLECTION HAS TAKEN AWAY THE MOST PROBLEMATIC AREA FOR LOW-LEVEL SYSTEMS CODE: MEMORY MANAGEMENT. THIS BOOK OPENS UP THE WORLD OF HIGH-PERFORMANCE UNIX SYSTEM APPLICATIONS TO THE BEGINNING GO PROGRAMMER. IT DOES NOT GET STUCK ON SINGLE SYSTEMS OR EVEN SYSTEM TYPES, BUT TRIES TO EXPAND THE ORIGINAL TEACHINGS FROM UNIX SYSTEM LEVEL PROGRAMMING TO ALL TYPES OF SERVERS, THE CLOUD, AND THE WEB. STYLE AND APPROACH THIS IS THE FIRST BOOK TO INTRODUCE LINUX AND UNIX SYSTEMS PROGRAMMING IN GO, A FIELD FOR WHICH GO HAS ACTUALLY BEEN DEVELOPED IN THE FIRST PLACE.

GET PROGRAMMING WITH HASKELL - WILL KURT
2018-03-06

SUMMARY GET PROGRAMMING WITH HASKELL LEADS YOU THROUGH SHORT LESSONS, EXAMPLES, AND EXERCISES DESIGNED TO MAKE HASKELL YOUR OWN. IT HAS CRYSTAL-CLEAR ILLUSTRATIONS AND GUIDED PRACTICE. YOU WILL WRITE AND TEST DOZENS OF INTERESTING PROGRAMS AND DIVE INTO CUSTOM HASKELL MODULES. YOU WILL GAIN A NEW PERSPECTIVE ON PROGRAMMING PLUS THE PRACTICAL ABILITY TO USE HASKELL IN THE EVERYDAY WORLD. (THE 80 IQ POINTS: NOT GUARANTEED.) PURCHASE OF THE PRINT BOOK INCLUDES A FREE eBook IN PDF, KINDLE, AND ePub FORMATS FROM MANNING PUBLICATIONS. ABOUT THE TECHNOLOGY

PROGRAMMING LANGUAGES OFTEN DIFFER ONLY AROUND THE EDGES—A FEW KEYWORDS, LIBRARIES, OR PLATFORM CHOICES. HASKELL GIVES YOU AN ENTIRELY NEW POINT OF VIEW. TO THE SOFTWARE PIONEER ALAN KAY, A CHANGE IN PERSPECTIVE CAN BE WORTH 80 IQ POINTS AND HASKELLERS AGREE ON THE DRAMATIC BENEFITS OF THINKING THE HASKELL WAY—THINKING FUNCTIONALLY, WITH TYPE SAFETY, MATHEMATICAL CERTAINTY, AND MORE. IN THIS HANDS-ON BOOK, THAT'S EXACTLY WHAT YOU'LL LEARN TO DO. WHAT'S INSIDE THINKING IN HASKELL FUNCTIONAL PROGRAMMING BASICS PROGRAMMING IN TYPES REAL-WORLD APPLICATIONS FOR HASKELL ABOUT THE READER WRITTEN FOR READERS WHO KNOW ONE OR MORE PROGRAMMING LANGUAGES. TABLE OF CONTENTS LESSON 1 GETTING STARTED WITH HASKELL UNIT 1 - FOUNDATIONS OF FUNCTIONAL PROGRAMMING LESSON 2 FUNCTIONS AND FUNCTIONAL PROGRAMMING LESSON 3 LAMBDA FUNCTIONS AND LEXICAL SCOPE LESSON 4 FIRST-CLASS FUNCTIONS LESSON 5 CLOSURES AND PARTIAL APPLICATION LESSON 6 LISTS LESSON 7 RULES FOR RECURSION AND PATTERN MATCHING LESSON 8 WRITING RECURSIVE FUNCTIONS LESSON 9 HIGHER-ORDER FUNCTIONS LESSON 10 CAPSTONE: FUNCTIONAL OBJECT-ORIENTED PROGRAMMING WITH ROBOTS! UNIT 2 - INTRODUCING TYPES LESSON 11 TYPE BASICS LESSON 12 CREATING YOUR OWN TYPES LESSON 13 TYPE CLASSES LESSON 14 USING TYPE CLASSES LESSON 15 CAPSTONE: SECRET MESSAGES! UNIT 3 - PROGRAMMING IN TYPES LESSON 16 CREATING TYPES WITH "AND" AND "OR" LESSON 17 DESIGN BY COMPOSITION—SEMI-GROUPS AND MONOIDS LESSON 18 PARAMETERIZED TYPES LESSON 19 THE MAYBE TYPE: DEALING WITH MISSING VALUES LESSON 20 CAPSTONE: TIME SERIES UNIT 4 - IO IN HASKELL LESSON 21 HELLO WORLD!—INTRODUCING IO TYPES LESSON 22 INTERACTING WITH THE COMMAND LINE AND LAZY I/O LESSON 23 WORKING WITH TEXT AND UNICODE LESSON 24 WORKING WITH FILES LESSON 25 WORKING WITH BINARY DATA LESSON 26 CAPSTONE: PROCESSING BINARY FILES AND BOOK DATA UNIT 5 - WORKING WITH TYPE IN A CONTEXT LESSON 27 THE FUNCTOR TYPE CLASS LESSON 28 A PEEK AT THE APPLICATIVE TYPE CLASS: USING FUNCTIONS IN A CONTEXT LESSON 29 LISTS AS CONTEXT: A DEEPER LOOK AT THE APPLICATIVE TYPE CLASS LESSON 30 INTRODUCING THE MONAD TYPE CLASS LESSON 31 MAKING MONADS EASIER WITH DONOTATION LESSON 32 THE LIST MONAD AND LIST COMPREHENSIONS LESSON 33 CAPSTONE: SQL-LIKE QUERIES IN HASKELL UNIT 6 - ORGANIZING CODE AND BUILDING PROJECTS LESSON 34 ORGANIZING HASKELL CODE WITH MODULES LESSON 35 BUILDING PROJECTS WITH STACK LESSON 36 PROPERTY TESTING WITH QUICKCHECK LESSON 37 CAPSTONE: BUILDING A PRIME-NUMBER LIBRARY UNIT 7 - PRACTICAL HASKELL LESSON 38 ERRORS IN HASKELL AND THE EITHER TYPE LESSON 39 MAKING HTTP REQUESTS IN HASKELL LESSON 40 WORKING WITH JSON DATA BY USING AESON LESSON 41 USING DATABASES IN HASKELL LESSON 42 EFFICIENT, STATEFUL ARRAYS IN HASKELL AFTERWORD - WHAT'S NEXT? APPENDIX - SAMPLE ANSWERS TO EXERCISE

THE ARCHITECTURE OF OPEN SOURCE APPLICATIONS, VOLUME II - AMY BROWN 2012

ARCHITECTS LOOK AT THOUSANDS OF BUILDINGS DURING THEIR TRAINING, AND STUDY CRITIQUES OF THOSE BUILDINGS WRITTEN BY MASTERS. IN CONTRAST, MOST SOFTWARE DEVELOPERS ONLY EVER GET TO KNOW A HANDFUL OF LARGE PROGRAMS WELL -- USUALLY PROGRAMS THEY WROTE THEMSELVES -- AND NEVER STUDY THE GREAT PROGRAMS OF HISTORY. AS A RESULT, THEY REPEAT ONE ANOTHER'S MISTAKES RATHER THAN BUILDING ON ONE ANOTHER'S SUCCESSES. THIS SECOND VOLUME OF THE ARCHITECTURE OF OPEN SOURCE APPLICATIONS AIMS TO CHANGE THAT. IN IT, THE AUTHORS OF TWENTY-FOUR OPEN SOURCE APPLICATIONS EXPLAIN HOW THEIR SOFTWARE IS STRUCTURED, AND WHY. WHAT ARE EACH PROGRAM'S MAJOR COMPONENTS? HOW DO THEY INTERACT? AND WHAT DID THEIR BUILDERS LEARN DURING THEIR DEVELOPMENT? IN ANSWERING THESE QUESTIONS, THE CONTRIBUTORS TO THIS BOOK PROVIDE UNIQUE INSIGHTS INTO HOW THEY THINK.

SPA DESIGN AND ARCHITECTURE - EMMIT A. SCOTT, JR.
2015-11-12

SUMMARY SPA DESIGN AND ARCHITECTURE TEACHES YOU THE DESIGN AND DEVELOPMENT SKILLS YOU NEED TO CREATE SPAs. INCLUDES AN OVERVIEW OF MV* FRAMEWORKS, UNIT TESTING, ROUTING, LAYOUT MANAGEMENT, DATA ACCESS, PUB/SUB, AND CLIENT-SIDE TASK AUTOMATION. THIS BOOK IS FULL OF EASY-TO-FOLLOW EXAMPLES YOU CAN APPLY TO THE LIBRARY OR FRAMEWORK OF YOUR CHOICE. PURCHASE OF THE PRINT BOOK INCLUDES A FREE eBook IN PDF, KINDLE, AND EPUB FORMATS FROM MANNING PUBLICATIONS. ABOUT THE TECHNOLOGY THE NEXT STEP IN THE DEVELOPMENT OF WEB-BASED SOFTWARE, SINGLE-PAGE WEB APPLICATIONS DELIVER THE SLEEKNESS AND FLUIDITY OF A NATIVE DESKTOP APPLICATION IN A BROWSER. IF YOU'RE READY TO MAKE THE LEAP FROM TRADITIONAL WEB APPLICATIONS TO SPAs, BUT DON'T KNOW WHERE TO BEGIN, THIS BOOK WILL GET YOU GOING. ABOUT THE BOOK SPA DESIGN AND ARCHITECTURE TEACHES YOU THE DESIGN AND DEVELOPMENT SKILLS YOU NEED TO CREATE SPAs. YOU'LL START WITH AN INTRODUCTION TO THE SPA MODEL AND SEE HOW IT BUILDS ON THE STANDARD APPROACH USING LINKED PAGES. THE AUTHOR GUIDES YOU THROUGH THE PRACTICAL ISSUES OF BUILDING AN SPA, INCLUDING AN OVERVIEW OF MV* FRAMEWORKS, UNIT TESTING, ROUTING, LAYOUT MANAGEMENT, DATA ACCESS, PUB/SUB, AND CLIENT-SIDE TASK AUTOMATION. THIS BOOK IS FULL OF EASY-TO-FOLLOW EXAMPLES YOU CAN APPLY TO THE LIBRARY OR FRAMEWORK OF YOUR CHOICE. WHAT'S INSIDE WORKING WITH MODULAR JAVASCRIPT UNDERSTANDING MV* FRAMEWORKS LAYOUT MANAGEMENT CLIENT-SIDE TASK AUTOMATION TESTING SPAs ABOUT THE READER THIS BOOK ASSUMES YOU ARE A WEB DEVELOPER AND KNOW JAVASCRIPT BASICS. ABOUT THE AUTHOR EMMIT SCOTT IS A SENIOR SOFTWARE ENGINEER AND ARCHITECT WITH EXPERIENCE BUILDING LARGE-SCALE, WEB-BASED APPLICATIONS. TABLE OF CONTENTS PART 1 THE BASICS WHAT IS A SINGLE-PAGE APPLICATION? THE ROLE OF MV* FRAMEWORKS MODULAR JAVASCRIPT PART 2 CORE CONCEPTS NAVIGATING THE SINGLE PAGE VIEW COMPOSITION AND LAYOUT INTER-MODULE INTERACTION COMMUNICATING WITH THE SERVER UNIT TESTING CLIENT-SIDE TASK AUTOMATION APPENDIXES EMPLOYEE DIRECTORY

EXAMPLE WALK-THROUGH REVIEW OF THE XMLHttpRequest API CHAPTER 7 SERVER-SIDE SETUP AND SUMMARY INSTALLING NODEJS AND GULPJS
REFINEMENT TYPES - RANJIT JHALA 2021-10-05

REFINEMENT TYPES CAN BE THE VECTOR THAT BRINGS FORMAL VERIFICATION INTO MAINSTREAM SOFTWARE DEVELOPMENT. THIS HAPPY OUTCOME HINGES UPON THE DESIGN AND IMPLEMENTATION OF REFINEMENT TYPE SYSTEMS THAT CAN BE RETROFITTED TO EXISTING LANGUAGES, OR CO-DESIGNED WITH NEW ONES. IN THIS BOOK, THE AUTHORS CATALYZE THE DEVELOPMENT OF SUCH SYSTEMS BY DISTILLING THE IDEAS DEVELOPED IN THE SPRAWLING LITERATURE ON THE TOPIC INTO A COHERENT AND UNIFIED TUTORIAL THAT EXPLAINS THE KEY INGREDIENTS OF MODERN REFINEMENT TYPE SYSTEMS, BY SHOWING HOW TO IMPLEMENT A REFINEMENT TYPE CHECKER. INSPIRED BY THE NANOPASS FRAMEWORK FOR TEACHING COMPILATION THE AUTHORS SHOW HOW TO IMPLEMENT REFINEMENT TYPES VIA A PROGRESSION OF LANGUAGES THAT INCREMENTALLY ADD FEATURES TO THE LANGUAGE OR TYPE SYSTEM. THE READILY ACCESSIBLE BOOK PROVIDES THE READER WITH AN INSIGHTFUL INTRODUCTION INTO REFINEMENT TYPES USING AN INNOVATIVE TUTORIAL STYLE THAT ENABLES FAST LEARNING. FURTHERMORE, THE ACCOMPANYING SOFTWARE IMPLEMENTATION ALLOWS READERS TO WORK ON PRACTICAL REAL-WORLD EXAMPLES.

DEVELOPING WEB APPS WITH HASKELL AND YESOD - MICHAEL SNOYMAN 2015-02-27

THIS FAST-MOVING GUIDE INTRODUCES WEB APPLICATION DEVELOPMENT WITH HASKELL AND YESOD, A POTENT LANGUAGE/Framework COMBINATION THAT SUPPORTS HIGH-PERFORMING APPLICATIONS THAT ARE MODULAR, TYPE-SAFE, AND CONCISE. FULLY UPDATED FOR YESOD 1.4, THIS SECOND EDITION SHOWS YOU HOW YESOD HANDLES WIDGETS, FORMS, PERSISTENCE, AND RESTFUL CONTENT. AUTHOR MICHAEL SNOYMAN ALSO INTRODUCES VARIOUS HASKELL TOOLS TO SUPPLEMENT YOUR BASIC KNOWLEDGE OF THE LANGUAGE. BY THE TIME YOU FINISH THIS BOOK, YOU'LL CREATE A PRODUCTION-QUALITY WEB APPLICATION WITH YESOD'S READY-TO-USE SCAFFOLDING. YOU'LL ALSO EXAMINE SEVERAL REAL-WORLD EXAMPLES, INCLUDING A BLOG, A WIKI, A JSON WEB SERVICE, AND A SPHINX SEARCH SERVER. BUILD A SIMPLE APPLICATION TO LEARN YESOD'S FOUNDATION DATATYPE AND WEB APPLICATION INTERFACE (WAI) OUTPUT HTML, CSS, AND JAVASCRIPT WITH SHAKESPEAREAN TEMPLATE LANGUAGES GET AN INDEPTH LOOK AT YESOD'S CORE MONADS FOR PRODUCING CLEANER, MORE MODULAR CODE PROBE YESOD'S INTERNAL WORKINGS: LEARN THE REQUEST HANDLING PROCESS FOR A TYPICAL APPLICATION BUILD FORMS ON TOP OF WIDGETS BY IMPLEMENTING THE YESOD-FORM DECLARATIVE API LEARN HOW YESOD AND HASKELL HANDLE PERSISTENCE AND SESSION DATA SERVE AN HTML PAGE AND A MACHINE-FRIENDLY JSON PAGE FROM THE SAME URL

ALGORITHM DESIGN WITH HASKELL - RICHARD BIRD
2020-07-09

THIS BOOK IS DEVOTED TO FIVE MAIN PRINCIPLES OF ALGORITHM DESIGN: DIVIDE AND CONQUER, GREEDY ALGORITHMS, THINNING, DYNAMIC PROGRAMMING, AND EXHAUSTIVE SEARCH. THESE PRINCIPLES ARE PRESENTED USING

HASKELL, A PURELY FUNCTIONAL LANGUAGE, LEADING TO SIMPLER EXPLANATIONS AND SHORTER PROGRAMS THAN WOULD BE OBTAINED WITH IMPERATIVE LANGUAGES. CAREFULLY SELECTED EXAMPLES, BOTH NEW AND STANDARD, REVEAL THE COMMONALITIES AND HIGHLIGHT THE DIFFERENCES BETWEEN ALGORITHMS. THE ALGORITHM DEVELOPMENTS USE EQUATIONAL REASONING WHERE APPLICABLE, CLARIFYING THE APPLICABILITY CONDITIONS AND CORRECTNESS ARGUMENTS.

EVERY CHAPTER CONCLUDES WITH EXERCISES (NEARLY 300 IN TOTAL), EACH WITH COMPLETE ANSWERS, ALLOWING THE READER TO CONSOLIDATE THEIR UNDERSTANDING AND APPLY THE TECHNIQUES TO A RANGE OF PROBLEMS. THE BOOK SERVES STUDENTS (BOTH UNDERGRADUATE AND POSTGRADUATE), RESEARCHERS, TEACHERS, AND PROFESSIONALS WHO WANT TO KNOW MORE ABOUT WHAT GOES INTO A GOOD ALGORITHM AND HOW SUCH ALGORITHMS CAN BE EXPRESSED IN PURELY FUNCTIONAL TERMS.