



Startel

Dé IT-opleider

Entry Level Developer - a Startel special e-learning collection

Met dit ideale zelfstudiepakket maak jij een goed begin voor een programmeercarrière.

Algemene omschrijving

Dit zelfstudiepakket bevat de volgende onderwerpen:

- Software Programming Fundamentals.
- Software Development Fundamentals.
- User Experience (UX) Design Foundations.
- Introduction to Algorithms and Data Structures.
- Python Fundamentals.
- JavaScript Essentials.
- Java SE 11 Development.
- Software Testing Foundations.

Software Programming Fundamentals

For a software application to be useful, it must function as expected and contain no errors. Creating such an application requires planning, development, and maintenance throughout its life cycle. To facilitate the creation of an application, it is important that all personnel involved follow a specified plan. Implementing best practices from the start of the project to the end will assist in producing a quality product in less time and requiring less maintenance upon release. This collection discusses some of the most common best practices that should be used in the planning and coding stages. It also discusses best practices when considering security issues, efficiency, and maintenance.

Software Development Fundamentals

The Software Development Fundamentals learning covers a common set of methodologies used when creating programs with a variety of programming languages. The path explores the key features of software development and programming basics and covers the objectives for the IT Specialist - Software Development exam (similar to the Microsoft exam: "Software Development Fundamentals (Exam 98-361)").

User Experience (UX) Design Foundations

A positive and effective user experience is crucial to the success of an application. This learning path covers the importance of identifying your users, using consistent and simple design patterns, implementing effective navigation and layout, incorporating media elements, using advertisements, and implementing user interface design strategies and tools such as Lean UX and wireframing.

Introduction to Algorithms and Data Structures

Python Fundamentals

Python is a high-level programming language that has code readability and simplicity as its primary design goals. Python is an interpreted language and supports object-oriented, functional imperative, and procedural paradigms. This series of Skillsoft courses covers the basics of Python and focuses on getting you up to speed writing code that conforms to the Pythonic style.

JavaScript Essentials

JavaScript is the de facto standard for writing front-end user interfaces for web applications. This series of courses covers many facets of programming rich interactive user experiences with JavaScript.

Java SE 11 Development

Java is the most widely used development language in the world today. It allows programmers to create objects that can interact with other objects to solve a problem. Explore Java SE fundamentals, including the Java technology and working with objects. Examine the Java language, how to declare, initialize, and use variables, as well as how to use operators and decision constructs. Creating and using arrays and loop constructs, working with methods and method overloading, using encapsulation and constructors, advanced object-oriented concepts, handling errors, and deploying applications are also covered.

Software Testing Foundations

Software systems are increasingly ubiquitous in all aspects of our lives. Failures in these systems can be costly in terms of money, time, and business reputation. Some software failures can even result in personal injury or death. Effective software testing is integral to mitigating harm caused by software failures and providing confidence in software systems. This path of courses introduces the objectives, principles, psychology, ethics, and fundamental processes associated with software testing. It covers testing throughout the software life cycle, static techniques, and test design techniques including black-box and white-box testing. You'll learn about test management, including planning, configuration, monitoring, and risk management. Finally, you'll learn about the tool support for testing – the types of tools available and how to introduce tools to your organization.

Doelgroep

The entry level software developer package is the ideal starting point for every student that wants to learn the basics of programming. With this package you can prepare for the IT Specialist – Software Development and the Java OCA exam.

Leerdoelen

With this package you can prepare for the IT-Specialist – Software Development and the Java OCA exam.

Voorkennis

Basic understanding of IT. No specific knowledge required.

Onderwerpen

Software Programming Fundamentals (4 courses)

- Software Programming Fundamentals: Design and Development Best Practices.
- Software Programming Fundamentals: Source Coding Best Practices.
- Software Programming Fundamentals: Software Security Best Practices.
- Software Programming Fundamentals: Best Practices for Maintaining Code.

Software Development Fundamentals (5 courses)

- Programming Fundamentals.
- Programming Techniques.
- Developing Windows and Web Applications.
- Object-oriented Programming Fundamentals.
- Windows Store Applications and Databases.

User Experience (UX) Design Foundations (3 courses)

- UX Design Foundations: Design Principles and Strategies.
- UX Design Foundations: Techniques and Tools.
- UX Design Foundations: Navigation, Layout, and Content.

Introduction to Algorithms and Data Structures (1 course)

- Introduction to Algorithms and Data Structures.

Python Fundamentals (6 courses)

- Python: The Basics.
- Python: Classes and Modules.
- Python: Iteration and Exceptions.
- Python: Web Application Development.
- Python: web2py and Test-driven Development.
- Python: Data Science Fundamentals.

JavaScript Essentials (10 courses)

- JavaScript Essentials: Getting Started.
- JavaScript Essentials: Language Features.
- JavaScript Essentials: JavaScript In Depth.
- JavaScript Essentials: Basic Browser Interaction.
- JavaScript Essentials: Date and Math Functions.
- JavaScript Essentials: Working with Strings.
- JavaScript Essentials: Working with Page Elements.
- JavaScript Essentials: Dynamic Content and HTML5.
- JavaScript Essentials: Dynamic JavaScript Code.
- JavaScript Essentials: Input and the Mouse.

Java SE 11 Development (13 courses)

- Java SE 11: Introduction to Java SE and the NetBeans IDE.
- Java SE 11: Variables and Operators.
- Java SE 11: Expressions, Arrays, and Loops.
- Java SE 11: Objects & Classes.
- Java SE 11: Encapsulation.
- Java SE 11: Strings and Primitive Data Types.
- Java SE 11: JDK Objects and Nested Loops.
- Java SE 11: Flow Control & Debugging.
- Java SE 11: Inheritance, Polymorphism, and Abstraction.
- Java SE 11: Inheritance, Lists, Inference, and Lambda Expressions.
- Java SE 11: Exception Handling.
- Java SE 11: Modular Design.
- Java SE 11: JShell.

Software Testing Foundations (3 courses)

- Software Testing Foundations: Testing throughout the Software Life Cycle.
- Software Testing Foundations: Static, Dynamic, Black-box, and White-box Testing.
- Software Testing Foundations: Test Planning, Management, and Tool Support.