QAHarbor
Evolving to Excellence
QA Harbor Limited

Course Syllabus

360 H ABL-Based Software QA Employability Training Program

Duration: 3 Months · 360 Hours

Chapter	Module Title
M1C1 - Beginner Software Quality Assurance Training	1.1 Definition and Importance of Software Quality Assurance (QA)
	1.2 QA vs. Quality Control (QC)
	1.3 Overview of the Software Development Life Cycle (SDLC)
	1.4 Overview of the Software Testing Life Cycle (STLC)
	1.5 Role of QA in Software Development
	1.6 Basic QA Terminology
	1.7 Tools for Effective QA
M1C2 - Software Development Models	2.1 Introduction to Software Development Models
	2.2 Waterfall Model
	2.3 Agile Methodology
	2.4 DevOps Methodology Basics
	2.5 Iterative and Incremental Development
	2.6 V-Model
	2.7 Spiral Model
	2.8 Prototype Model
	2.9 Hybrid Model

Chapter	Module Title
	2.10 Key Models of SDLC- Head-to-Head Comparison
M1C3 - Testing Fundamentals	3.1 What is Software Testing?
	3.2 Types of Testing (Functional vs. Non-functional)
	3.3 Levels of Testing
	3.4 Acceptance Testing
	3.5 Alpha Testing
	3.6 Beta Testing
	3.7 Testing Objectives and Principles
M1C4 - Test Planning and Documentation	4.1 Introduction to Test Planning
	4.2 Test Plan Components
	4.3 Test Case Design Techniques
	4.4 Creating and Managing Test Cases
	4.5 Test Data Preparation
	4.6 Importance of Traceability
	4.7 Tools Overview
	4.8 Best Practices in Software Quality Assurance
M1C5 - Manual Testing Techniques	5.1 Introduction to Manual Testing Techniques
	5.2 Static and Dynamic Testing
	5.3 Static Testing Techniques

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	5.4 Dynamic Testing Techniques
	5.5 Exploratory Testing
	5.6 Compatibility Testing
	5.7 Black Box Testing
	5.8 White Box Testing
	5.9 Test Design Techniques
	5.10 Tools and Management (Jira)
M1C6 - Introduction to UI_UX Testing	6.1 Importance of UI/UX Testing
	6.2 UI/UX Testing Tools Overview
	6.3 Step-by-Step Demonstration: Conducting Proper Testing for a Design using Figma
	6.4 Types of UI/UX Testing
	6.5 Analyzing Results from UI/UX Testing
	6.6 Best Practices in UI/UX Testing
	6.7 UI/UX Testing with Automation
M1C7 - Test Execution and Reporting	7.1 Test Execution Process
	7.2 Introduction to Defects
	7.3 Defect Life Cycle
	7.4 Status, Severity, and Priority of Defects
	7.5 Defect Report / Incident Report
	7.6 Bug Lifecycle Management
	7.7 Importance of Regression Testing

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	7.8 Communicating Test Results
	7.9 Tools for Test Execution and Defect Management
Introduction to programing languages	8.1. Java Basics
	8.2. Object-Oriented Programming (OOP) in Java
	8.3. Collections Framework in Java
	8.4. Exception Handling in Java
	8.5. Input/Output (I/O) in Java
	8.6. Java Libraries for Data Handling and Logging
M1C8 - Introduction to Automation Testing	9.1 Benefits of Test Automation
	9.2 Test Automation Tools Overview
	9.3 When to Automate vs. Manual Testing
	9.4 Scripting Basics for Automation
	9.5 Best Practices in Test Automation
	9.6 Tools and Techniques in Automation Testing
	9.7 Basics of Automation Frameworks
M1C9 - GIT	10.1 Introduction to GitHub
	10.2 Version Control and Git
	10.3 Setting Up a GitHub Account and Basic Profile Information
	10.4 Basic Git Commands

Chapter	Module Title
	10.5 GitHub Workflow
	10.6 GitHub Features
	10.7 Best Practices for Using GitHub
M1C10 - Performance Testing Basics	11.1 The Importance of Performance Testing
	11.2 Types of Performance Testing
	11.3 Tools for Performance Testing
	11.4 Performance Testing Metrics
	11.5 Analyzing Performance Test Results
	11.6 Performance Testing Life Cycle
	11.7 Environment Setup for Performance Testing
	11.8 Best Practices for Performance Testing
	11.9 Common Performance Testing Pitfalls
	11.10 Integration of Performance Testing into CI/CD Pipelines
	11.11 Performance Testing in Agile and DevOps
	11.12 Load Simulation Techniques
	11.13 Case Studies in Performance Testing
M1C11 - Security Testing Fundamentals	12.1 Overview of Security Testing
	12.2 Common Security Vulnerabilities: OWASP Top Ten
	12.3 Tools for Security Testing
	12.4 Creating a Security Test Plan

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	12.5 Reporting Security Issues
	12.6 Security Testing in Agile and DevOps
	12.7 Legal and Ethical Considerations in Security Testing
M1C12 - Mobile Application Testing	13.1 Mobile Application Testing
	13.2 Challenges of Mobile Testing
	13.3 Types of Mobile Testing (Functional, Performance)
	13.4 Mobile Testing Tools Overview
	13.5 Testing on Different Mobile Platforms (iOS, Android)
	13.6 Best Practices for Mobile Testing
M1C13 - API Testing	14.1 Introduction to Web Services
	14.2 Types of Web Services
	14.3 Participants of Web Service
	14.4 Introduction to RESTful Web Service
	14.5 Introduction to SOAP Web Service
	14.6 Postman
	14.7 Tools Overview
M1C14 - Quality Metrics and Reporting	15.1 Understanding Quality Metrics
	15.2 Key Performance Indicators (KPIs) for QA
	15.3 Data Collection Methods

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	15.4 Reporting Metrics to Stakeholders
	15.5 Continuous Improvement through Metrics
M1C15 - Introduction to Agile Testing	16.1 Agile Principles and QA
	16.2 Role of QA in Agile Teams
	16.3 Agile Testing Techniques (TDD, BDD)
	16.4 Sprint Planning and Retrospectives
	16.5 Collaboration in Agile Teams
	16.6 Tools: Cucumber
M1C16 - Introduction to Test Management	17.1 Test Management Tools Overview
	17.2 Managing Test Cases and Requirements
	17.3 Test Execution Management
	17.4 Reporting and Tracking Test Progress
	17.5 Handling Test Closure Activities
M1C17 - Soft Skills and Career Development for QA Professionals	18.1 Key Skills for QA Professionals
	18.2 Problem-Solving Techniques
	18.3 Time Management
	18.4 Career Development in QA
	18.5 Certifications
	18.6 Networking and Continuous Learning
M1C18 - Freelancing in Software Quality Assurance	19.1 Overview of Freelancing
	19.2 Benefits of Freelancing

Chapter	Module Title
	19.3 How Freelancing Works
	19.4 Legal Considerations
	19.5 Getting Started in Freelancing
	19.6 Continuous Learning and Improvement

Note: This is a brief overview of a portion of the full syllabus. Enrolled students will gain access to additional modules, exclusive content, and extended learning resources throughout the program.

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QA Harbor Limited reserves the right to update, modify, or revise this syllabus at any time to ensure the best learning outcomes.