

SOFTWARE TESTING TRAINING

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INTRODUCTION

TestCrew courses will focus on getting the trainee ready for a career with a job title of a Software Testing Engineer, Test Automation Engineer, , Performance Test Engineer and AI Test Engineer positions. The training will be broken down into the following courses:

- Manual Testing
- Agile SDLC & Test Management
- Mobile Testing
- Webservice API Testing
- Introduction to Software Development
- **Automation Testing**
- **Performance Testing**
- Al Testing

Tracks	Certifications/Courses
Manual Tester	ISTQB Foundation Course Agile Tester Extension Certificate Agile certified practitioner Certificate ISTQB Mobile application testing Certificate
Automation Tester	ISTQB Foundation Course Agile Tester Extension Certificate (Optional) ISTQB Test Automation Engineer Certificate
Performance Tester	ISTQB Foundation Course ISTQB Agile Tester Extension Certificate (Optional) ISTQB Performance Testing Certificate
Al Tester	ISTQB Foundation Course Certified Tester Al Testing (CT-AI)

MANUAL TESTING

Course Code: (MT100)

60 HOURS

Course Title	Manual Testing	
Test	Ms Office, Web	
Environment	Browsers, JIRA, SnagIT	
The objectived	Manual Testing	ISTQB Foundation Course
Course	Essentials Practices	CTFL 2018 syllabi
Certificate /	Project Based	ISTQB Foundation Course
Project based course ?		CTFL 2018 Certificate
Mandatory / Optional	Mandatory	Mandatory
Track	-	



Topic	Sub-Topic
Introduction to	Bootcamp Overview
BootCamp	Bootcamp Rules
	Bootcamp Certificate
	Mandatory & Optional Courses
	2020 Trending Technologies
	Career path after Bootcamp
Fundamentals of	What is Testing
Software Testing	Why is Testing Necessary
	Principles of a Software Testing
	Test Process
	Psychology of Testing
Software	SDLC Models
Development Lifecycle	Test Levels
	Test Types
	Maintenance Testing
Static Testing	Static Testing Basis
	Review Process
Test Techniques	Categories of Test Techniques
	Black-box Test Techniques
	White-box Test Techniques
	Experienced-based Test Techniques
Test Management	Test Organization
	Test Planning and Estimation
	Test Monitoring and Control
	Configuration Management
	Risks and Testing
	Defect Management
Test Tools	Test Tools Classification



AGILE SDLC & TEST MANAGEMENT

Course Code: (AG200)

40 HOURS

Course Title	Agile Software Development Lifecycle and Test Management
Test Environment	JIRA
The objectived Course	Agile Tester Extension syllabi
Certificate / Project based course ?	ISTQB Agile Tester Extension Certificate Or Agile certified practitioner Certificate
Mandatory / Optional	Mandatory (Manual Tester)

Optional for the other tracks



Track

Торіс	Sub-Topic
Agile Software	Why Agile?
Development	Agile Manifesto
	The mind of an Agile Tester
	Types and Aspects of Agile (Scrum, XP, Kanban)
	User Story Creation
	Test Automation
	Continuous Integration
	Release and Iteration Planning
	Pros and Cons of Agile
Agile Testing	Agile Principles
Principles, Practices, and	Traditional Testing vs Agile Approach
Processes	Status of Testing in Agile Projects
	Role of a Tester in an Agile Team
Agile Testing	Agile Testing Methods
Methods, Techniques, and	Assessing Risks
Tools	Estimating Test Effort
	Agile Project Techniques
	Tools in Agile Project - JIRA
Agile Test Certification	ISTQB Certified Tester – Agile Tester



WEBSERVICE REST API TESTING

Course Code: (RST300)

20HOURS

Course Title	Webservice REST API Testing
Test Environment	XML, JSON, SoapUI, Postman
The objectived Course	Webservice REST API Testing (all types of web services)
Certificate / Project based course ?	Project based
Mandatory / Optional	Mandatory
Track	-

Topic	Sub-Topic
REST Architecture	SOA Architecture
	Components of a REST API
RESTful Testing	Introduction to XML, JSON
	Restful Test Execution Assertions
	& JSON Path Finder
	Creating a Testcase & TestSuite
	Automating a RESTful TestSuite
	SoapUI, Postman
Debugging a RESTful API	REST Status Codes



INTRODUCTION TO SOFTWARE DEVELOPMENT

Course Code: (DEV100)

120HOURS

Course Title	Introduction to Software Development
Test Environment	Notepad++, SQL, MYSQL, Mongo, MongoBooster
The objectived Course	Software Development Essentials Practices
Certificate / Project based course ?	
Mandatory / Optional	Mandatory
Track	-

Topic	Sub-Topic
Introduction to	Bootcamp Overview
BootCamp	Bootcamp Rules
Software Development Basics Backend JavaScript Python Django Framework Database	Bootcamp Certificate
	Mandatory & Optional Courses
	2020 Trending Technologies
	Career path after Bootcamp
Software	Introduction
Development	Methodologies
Basics	Life Cycle and Phases
Backend	To Be Decided
JavaScript	Functions, Event & Output
	Statements & Syntax
	Variable, Operators, Data Type
	JS Conditions & Loop
	JS Reg Expression
	JS Classes, Object, & Function
	JS Best Practices
	JS Debugging & REST Status Code
Python	To Be Decided
Django	To Be Decided
Framework	
Database	Introduction to SQL
	Introduction to MySQL DMBS
	Mongo
	Postgres



AUTOMATION TESTING

Course Code: (AUT400)

80 HOURS

Course Title	Automation Testing	
Test Environment	Java, JDK, Eclipse IDE, Selenium Webdriver, Maven, TestNG, GIT, SVN, Jenkins	
The objectived Course	Test Automation using Essentials Practices and tools	ISTQB Test Automation Engineer syllabi
Certificate / Project based course ?	Project based	ISTQB Test Automation Engineer
Mandatory / Optional	Optional (Track)	Certificate
Track	Automation Tester	



Java Object Oriented Programming Java IDE, Eclipse, Intelligent J Selenium Webdriver Selenium Webdriver Locators & GUI Elements Webdriver Commands Waits & AutoIT Data Driven Testing using Excel Automation Framework – TestNG Page Object Model Screenshot Capturing Logging & Report Syntax, Text, Font **CSS Colors** CSS User Interface & Variables Maven Maven Integration with Selenium Installing & Configuring Maven Adding dependency to POM.xml **Automation Framework** Types of Framework Designing a Framework Implementation of a Hybrid Framework Continuous Integration Jenkins Set Up and Installation Configuring Jenkins Security Git & GitHub Integration Jenkins Git Integration Maven Jenkins configuration Build a free style project using Jenkins Build a remote project using Git and Jekins Test

Sub-Topic

Java Basics

Schedule on a GIT, SVN repository

Topic

Java



PERFORMANCE TESTING

Course Code: (PRF370)

40 HOURS

Course Title	JMeter, LoadRunner
Test Environment	JMeter, LoadRunner
The objectived Course	Perfomance Testing (Jemeter) Performance Testing Syllabus
Certificate / Project based course ?	Project bases ISTQB Performance Testing Certificate
Mandatory / Optional	Optional (Track)
Track	Performance Tester



Topic	Sub-Topic
Basic Concept	Principles & Types of Performance Testing
	Testing Types
	Load Generation
	Failure Modes & Causes
Performance	Typical Metrics
Measurement	Aggregating Results
	Key Sources of Performance Metrics
	Typical Results
Performance	Testing Activities
Software Lifecycle	Categories & Architecture
	Risks
	Introduction
Performance Testing	Planning
Tasks	Analysis, Design and Implementation
	Execution
	Analzying results
	Reporting
Performance Testing	Tools Support
Tools	Tool Suitability
Performance Test	ISQTB Foundation Level Specialist –
Certification	Performance Testing



MOBILE TESTING

Course Code: (MT250)

40 HOURS

Course Title	Mobile Testing	lobile Testing	
Test Environment	Google Emulator, .apk files, TestFlight, Andriod Phones, iOS Phones, Fuse,	SnagIT, JIRA Mobile App, Xamarin	
The objectived Course	ISTQB Mobile application testing syllabi		
Certificate / Project based course ?	ISTQB Mobile application testing Certificate		
Mandatory / Optional	/ Optional (Track)		
Track	Manual Tester		



Topic	Sub-Topic
Mobile World — Business and	Introduction
Technology	Mobile Device Types
	Types of Mobile Apps
	Mobile Apps Architecture Test
	Strategy for Mobile Apps
	Challenges & Risks of Mobile Apps Testing
Mobile App Testing Types	Device Hardware
	Device Software
	Connectivity Methods
Common Test Types	Installability Testing
	Stress Testing
	Security Testing
	Performance Testing
	Usability Testing
	Database Testing
	Globization & Localization Testing
	Accessbility Testing
	App Store and Post Release Testing
	Experience Based Testing
Mobile App Testing Tools	Development platforms for Mobile Apps
	Emulators & Simulators
	Test Lab
Mobile Test Automation	Approaches
	Methods
	Tools Evaluation
	Automation Test Lab
Mobile Test Certification	ISTQB Mobile Application Testing -
	Foundations Level



AI TESTING

Course Code: (Al205)

40 HOURS

Course Title	Al Testing
Test Environment	Applitools , Testim , , Mabl , Functionize , Fuse,
The objectived Course	Certified Tester Al Testing (CT-AI)
Certificate / Project based course ?	Al Testing (CT-AI)
Mandatory / Optional	Optional (Track)
Track	Manual Tester



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	Торіс	Sub-Topic
	Introduction to Al	Definition of IA and AI Effect Narrow, General and Super AI AI-Based and Conventional Systems AI Technologies AI Development Frameworks Hardware for AI-Based Systems AI as a Service (AlaaS) Pre-Trained Models standards, Regulations and AI
	Quality Characteristic for AI Based Systems	Flexibility and Adaptability Autonomy Evolution Bias Ethics Side Effects and Reward Hacking Transparency, Interpretability and Explainability Safety and Al
	Machine Learning (ML) – Overview	Forms of ML ML Workflow Selecting a Form of ML factors Involved in ML Algorithm Selection Overfitting and Underfitting
	ML Data	Data Preparation as Part of the ML Workflow Training, Validation and Test Datasets in the ML Workflow Dataset Quality Issues Data Quality and its Effect on the ML Model Data Labelling for Supervised Learning
	ML Functional performance Metrics	Confution Matrix Add ML Functional performance Metrics for Classification, Regression and Clustering Limitations of ML Functional Performance Metrics Selecting ML Functional Performance Metrics Benchmark Suites for ML Performance
	ML Neural Testing AI-Based Systems – Overview	Neural Networks Coverage Measures for Neural Networks specification of Al-Based Systems Test Levels of Al-Based systems Test Data for Testing Al-Based Systems Testing for Automation Bias in Al-Based Systems Documenting an Al-Based Component Testing for Concept Drift Selecting a Test Approach for an ML System
	Testing Al-Specific Quality Characteristics Methods and Techniques for the Testing of Al-Based Systems	Challenges Testing Self-Learning Systems Adversarial Attacks and Data Poisoning Testing Autonomous Self-Learning Systems Testing for Algorithmic, Sample and Inappropriate Bias





920033213 Ext: 103
SAUDI ARABIA | RIYADH
Al Aqiq District | Qana Al Suwais Road

<u>@company/the-testcrew</u>



Testcrew.sa