

CSE379:MOBILE AUTOMATED TESTING

L:0 T:0 P:4 Credits:3

Course Outcomes: Through this course students should be able to

- CO1 :: illustrate mobile testing basics using appium for android based application.
- CO2 :: develop Emulator Setup and Real Device Setup for android based application.
- CO3 :: apply Appium Inspector to execute test on real device for android based application.
- CO4 :: demonstrate scrum framework for explaining agile testing.
- CO5 :: apply Jira and Bugzilla for automated testing.
- CO6 :: explain and demonstrate other Android native apps automation tools.

List of Practicals / Experiments:

Mobile testing basics

- Mobile Testing Challenges
- Mobile Testing Strategy
- Real Devices, Simulators and Emulators
- What is appium?
- How Appium works? Architecture Overview.
- Mobile App Installation
- Types of Mobile Apps
- Setup Possibilities
- UiAutomator2 Vs Espresso Driver
- Important Appium links
- Appium 2.0 Overview and the Installation
- Installing Appium 2.0 server
- Setup JAVA JDK
- Setup Android Studio

Appium project

- What are Desired Capabilities?
- What is a vendor prefix and why Appium using it?
- Create a Java Project using Maven
- Start Driver Session from the Java Program
- Create Driver Session using Options Class
- Android: How to Get appPackage and appActivity?
- Android: Launch Emulator Automatically

Android native apps automation with appium

- Introduction to Id, Xpath & Accessibility ID locators in App with an example
- How to handle Mobile popups & return list of matching elements on Android app
- How to extract the text & Enter the info on Mobile Apps with Appium
- Introduction to App features and test cases to automate

- Test Case in Filling the form details for shopping
- Verifying toast messages for error validations
- Testcase-Scrolling in product list example with Appium Android scroll
- Testcase-Dynamically selecting Product by scanning list based on text
- TestCase- Validating Total amount generated functionality
- Code optimization with user defined functions

Agile testing

- What is Agile ?
- What is Scrum?
- What is Sprint?
- What is User Story?
- How to give story points?
- Different Sprint Activities:Sprint Planning / Backlog Refinement / Sprint Review / Sprint Retrospective

Jira and bugzilla for testers

- Setup JIRA Trial for Practice
- Report a new defect in JIRA
- Search and Update Defect Information
- Report Defect with Environment Value
- Report defect and link Team members
- Define Components in Defect
- Report Defect with Label
- Bug Life Cycle - Valid Defect
- Bug Life Cycle - InValid Defect
- Bug Life Cycle - Valid Defect - Rejected by Developer
- Basic Search of JIRA Tickets
- Advance Search Options : Issues and Filters
- Advance Search Options : Use Different fields to search items
- Introduction To Bugzilla
- working on Bugzilla test Server
- File A Bug in Bugzilla

Introduction to other mobile testing tools

- Basics of katalon studio
- Basics of espresso
- Basics of Robotium
- Basics of Selendroid

References: 1. MASTERING ADVANCED SCRUM by RITURAJ PATIL, BPB PUBLICATIONS

