*** Testing and Automation ***

-: PRE REQUISITES :-
- (1) Laptop with dual boot — Windows and Ubuntu-18.04
- (2) Github, Gmail and AWS Trial user accounts
- (3) Basic vi commands in Linux. [create/edit/save/view a file]
- (4) Zoom application installed and working in your laptop

-: COURSE CONTENT :-
1. Software Testing
   a. Concepts, Terminology, Types of Testing
   b. STLC — Entry, Exit criteria
   c. Test Strategy, Plan, Cases, Execution, Reporting
   d. QA vs QC
   e. Static Vs Dynamic testing, Black Vs White Box testing
   f. Defect management — JIRA Tool, Bug life cycle.
   g. ROI, Cost of quality, Boundary analysis, Equivalence partitioning, Test Environment, Agile (Scrum)
2. Manual Testing
   a. Writing testcases for given block box project.
   b. Reporting a bug
3. Introduction to Python programming
   a. Introduction, Download/Install, Setup Eclipse + PyDev + Git plugins configuration.
   b. Operators, Data types (Numbers, Strings, Lists, Tuples, Sets, Dictionaries, Arrays)
   c. Control flow — Decision making, Looping, Branching
   d. Functions (User defines, Build-in), Class, Objects
   e. Writing our own package and using it
   f. Pip install most used packages and how to import and use.
   g. User input, Files, Exception handling.
4. Automation
   a. UI : Elements, Attributes, Locaters, Inspect page, Page object model
        i. Firefox, IE, Chrome etc browsers
       ii. Selenium — IDE, RC, WebDriver, Grid
      iii. Common issues seen in UI automation
   b. API : HTTP Requests/Responses, Payloads etc
   c. Automation Frameworks:
        i. Types: Modular, Data Driven, Keyword Driven (cucumber), Hybrid, Behavior Driven, Library Architecture
       ii. Commonly used frameworks:
             1. TestNG, Robot framework, Appium etc
   d. Write basic test spec for Training Project
   e. UI Automation using Python + selenium package
   f. API Automation using Python + requests package
5. Testing tools introduction — JIRA, Review Board, JaCOCO/SonarQube, HP ALM, Testrails

NOTE: Interview Questions. Mock Interviews. Placement assistance.