TEST PLANNING

- **Product Analysis:** The given Web Application is a platform which provides the educational content for international studies and work. It contains very huge number of end-points on which we need to perform testing in order to ensure that features implemented in the given Web Application are functioning properly and meets with the customer requirement.
- **Test strategy:** Two types of testing will be performed:
  1. Manual Testing: In this, we manually test every end-point and every feature so that it will work accordingly and tools that will be used are ZAP, BurpSuite and Postman.
  2. Automation Testing: In this, scripting is done by Selenium and Robot Framework in order to check every element of the given Web Application and to automate the task.

- **Objectives:** The main objective is to make ensure that the application will work according to the define standards and also handles user-end exceptions and restrict any kind of malicious activities which directly or indirectly affects the Web Application's performance and other related assets.
- **Test criteria:** We can further categorise this into two parts:
  1. Suspension Criteria: If the testing teams finds that 50% of the test cases have been failed, then the further testing will be suspended until the developer fixes all the bugs.
  2. Exit Criteria: If 80% of the test cases are marked successful before the particular portion of the application, then it will be considered suitable for customer use.
- **Resource Allocation:**
  1. A team of 'n' members will be performing testing and the given task will be completed in within 6 months.
  2. Tools and techniques that will be used in the testing are: ZAP, BurpSuite, Postman, Pycharm, Python, Robot Framework, Selenium Library, Intellibot Plug-in.
- **Test Environment:** Real browsers and operating systems will be installed in the devices of each team member for both manual testing or automation testing.
- **Test Schedule and Estimation:** The whole testing will be divided further into smaller parts among the team members to make sure that the equal time and effort is given to the complete testing of the Web Application and is to be done before deadline of 6 months.
- **Test deliverables:** In these three types of documentation will be delivered
  1. Deliverables before testing: Test Plan and Test Design
  2. Deliverables during testing: Test Scripts, Simulators or Emulators, Test Data, Error and execution logs.

3. Deliverables required after testing: Test Results, Defect Reports and Release Notes.