**TEST STRATEGY –IDENTIFY COURSES**

**COURSERA**

**HACKATHON PROJECT**

**Test Strategy**

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**Test Strategy – Identify Courses**

**Table of Contents**

[1.0 Introduction 3](#_Toc88969293)

[1.1 Purpose 3](#_Toc1287491142)

[1.2 Target Audience 3](#_Toc1640273830)

[2.0 System Description 3](#_Toc1868589822)

[3.0 Test Deliverables 4](#_Toc1566829213)

[4.0 Test Types 4](#_Toc340382310)

[5.0 Multi-Browser Testing 4](#_Toc2114612709)

[6.0 Test Data 4](#_Toc2038676157)

[7.0 Resources Required 4](#_Toc1649909321)

[7.1 Hardware 4](#_Toc580139486)

[7.2 Software 4](#_Toc836185744)

**Test Strategy – Identify Courses**

# **1.0 Introduction**

## **1.1 Purpose**

The Test Strategy document outlines the approach for testing the automation workflows implemented for the Coursera-based project. It defines the types and levels of testing to be performed and ensures that all critical functionalities—both newly developed and existing—are validated effectively.  
   
This document also establishes the scope of testing, which includes the development of test conditions, test cases, test data, automation scripts, and effort estimation. It serves as a communication tool to identify and address testing-related issues early in the project lifecycle.

## **1.2 Target Audience**

• Business Unit (BU) SME  
 • Academy Coach  
 • Technical Trainer

# **2.0 System Description**

Coursera is a globally recognized online learning platform offering MOOCs, professional certificates, and degree programs in collaboration with top universities and organizations. The platform provides courses across various domains including technology, business, data science, health, and humanities.  
   
This project automates key user workflows on Coursera such as course search, filtering, form validation, partner and career listings, and footer link verification using Selenium-based hybrid frameworks.

# **3.0 Test Deliverables**

|  |  |
| --- | --- |
| Project Phase | Deliverables |
| Test Planning | Test Strategy Document |
| Test Analysis & Design | Test Conditions, Test Cases, Test Data, Test Environment, Automated Test Scripts |
| Test Execution | Test Logs |
| Test Completion | Test Summary Report |

# 

# **4.0 Test Types**

The following types of testing are applied to validate the Coursera workflows:  
 • Functional Testing – To verify that each feature behaves as expected.  
 • Regression Testing – To ensure new changes do not affect existing functionality.  
 • Automation Testing – To execute repetitive and data-driven test cases efficiently using Java, Selenium, TestNG, and Cucumber.

# **5.0 Multi-Browser Testing**

To ensure cross-browser compatibility, the automation scripts are executed on:  
 • Google Chrome  
 • Microsoft Edge  
   
This helps validate consistent behaviour across different browser environments.

# **6.0 Test Data**

* Test data is managed using Excel files and property files:
* Excel Files: Used for storing input data and expected results.
* Apache POI: Utilized for reading and writing Excel data.
* Property Files: Store configuration details such as URL, browser type, and credentials.
* XML File: For storing data and reading data purpose.
* Txt File: For unstructured data writing.
* Data-driven testing is implemented to support multiple test scenarios and improve coverage.

# **7.0 Resources Required**

## **7.1 Hardware**

• Personal Computer (PC)

## **7.2 Software**

* Windows 10 and above
* Google Chrome 60+
* Microsoft Edge
* Microsoft Excel
* Java Development Kit (JDK)
* Selenium WebDriver
* Apache POI
* TestNG
* Cucumber (for BDD implementation)
* Selenium Grid