**Kelompok 8**

**CAPSTONE PROJECT**

**LEARNING MANAJEMEN SYSTEM**

**“EDUTIV”**

**Test Plan**

**Version 1.0**

**Revision History**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 31/05/2022 | 1.0 | Functional testing, manual testing, automation testing | Kadek Ratna Sari |

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**Test Plan**

1. **Introduction**

This Test Plan document describes the testing of a Web UI, RestAPI, and Mobile that is made to run according to a predetermined plan. Testing is not carried out on the source code, but testing is carried out on the functional testing, manual testing, and automation testing of the software.

The test plan is a document that describes the features to be tested, the features that will not be tested, the approach, resources, and schedule of the intended Testing activities. With a well-detailed test plan, all aspects of the software in general can be covered and the results are in accordance with the plan that has been made previously.

* 1. **Purpose**

This Test Plan document is a test plan document to support the software followed by the following objectives :

1. Identify the software components that must be tested.
2. Make describe the strategy testing that will be carried out.
   1. **Background**

The testing phase is built is very much needed so that the performance of the software used can run as expected. In addition, this stage is also carried out to overcome or reduce the occurrence of error.

The scope of testing that will be carried out so that the performance of the software can run smoothly both include:

* 1. Functional Testing

Functional Testing is a type of software testing that validates the software system against the functional requirements/specifications. The purpose of Functional tests is to test each function of the software application, by providing appropriate input, verifying the output against the Functional requirements.

* 1. Manual Testing

Manual testing is a way to do software testing where the tester executes it manually. So the software is directly tested by human hands. Manual testing is a classic method that is still used today.

* 1. Automation Testing

To carry out the automation testing process, the tester needs to create code or test scripts. The script will be run with the help of an automation testing tool. Scripts that have been written correctly and then run through the automation testing tool will automatically validate the software that is being tested.

* 1. **Scope**

This document only discusses testing of software whose scope includes function testing, manual and automation testing. In addition, testing will also be carried out on each form in the software. Testing is only done with a tester.

* 1. **Project Identification**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Document (and version / date)** | **Created or**  **Available** | **Received or**  **Reviewed** | **Author or**  **Resource** | **Notes** |
| Requirements Specification |  Yes  No |  Yes  No | Kadek Ratna Sari |  |
| Functional Specification |  Yes  No |  Yes  No | Kadek Ratna Sari |  |
| Project Plan |  Yes  No |  Yes  No | Kadek Ratna Sari |  |

1. **Requirement for Test**

These test requirements include the system under test and the tools used for the test. the systems tested are Web UI, RestAPI and Mobile app. while the tools used are Katalon Studio, Vysor, and Microsoft Excel. Then the tools used to document the test such as Microsoft Word.

1. **Test Strategy**

Strategy consists of all plans carried out for testing the software or system that has been built.

* 1. **Testing Types**
     1. **Web UI**

1. **Functional Testing**

|  |  |
| --- | --- |
| **Test Objective:** | Form Input can be perform data input for the database or for processing |
| **Technique:** | * Test function button on the form * Test the input form with various input conditions * Verify the result of the output are in accordance with the input |
| **Completion Criteria:** | * Each input form can input data into the database * Output are in accordance with the input |
| **Special Considerations:** |  |

1. **Manual Testing**

|  |  |
| --- | --- |
| **Test Objective:** | All form and buttons can run well and according to the flow |
| **Technique:** | * Testing input form manually * Testing functional button click manually |
| **Completion Criteria:** | * All input form working correctly * Functional buttons working correctly |
| **Special**  **Considerations:** |  |

1. **Automation Testing**

|  |  |
| --- | --- |
| **Test Objective:** | All form and buttons can run well with automation tools |
| **Technique:** | * Testing input form automation * Testing functional button click automation * Make report |
| **Completion Criteria:** | The predicted output is the same as the output genereted by the system |
| **Special**  **Considerations:** |  |

* + 1. **RestAPI**

1. **Functional Testing**

|  |  |
| --- | --- |
| **Test Objective:** | Ensure all code and data responses are as expected |
| **Technique:** | * Test input with variable input condition * Make sure the output matches the input |
| **Completion Criteria:** | Provide a response in the form of code and data |
| **Special**  **Considerations:** |  |

* + 1. **Mobile App**

1. **Function Testing**

|  |  |
| --- | --- |
| **Test Objective:** | All form and buttons can run well and according to the flow |
| **Technique:** | * Testing input form manually * Testing functional button click manually |
| **Completion Criteria:** | * All input form working correctly * Functional buttons working correctly |
| **Special**  **Considerations:** |  |

1. **Manual Testing**

|  |  |
| --- | --- |
| **Test Objective:** | All form and buttons can run well and according to the flow |
| **Technique:** | * Testing input form manually * Testing functional button click manually |
| **Completion Criteria:** | * All input form working correctly * Functional buttons working correctly |
| **Special**  **Considerations:** |  |

1. **Automation Testing**

|  |  |
| --- | --- |
| **Test Objective:** | All form and buttons can run well with automation tools |
| **Technique:** | * Testing input form automation * Testing functional button click automation * Make report |
| **Completion Criteria:** | The predicted output is the same as the output genereted by the system |
| **Special**  **Considerations:** |  |

* 1. **Tools**

|  |  |  |
| --- | --- | --- |
| **Tools Type** | **Tools** | **Version** |
| Automation Testing Tool | Katalon Studio | 8.2.5 |
| Test Plan Document | Microsoft Word | 2010 |
| Bug Report Document | Microsoft Word | 2010 |
| Role Matrix | Microsoft Excel | 2010 |
| Test Scenario and Test Case Document | Microsoft Excel | 2010 |
| Android Control Tools / Emulator | Vysor | 4.1.77 |

1. **Resources**

Here is explained about the resources used to perform testing on the web UI, RestAPI, and Mobile App.

* 1. **Workers**

|  |  |  |
| --- | --- | --- |
| **Worker** | **Minimum Resources Recomended** | **Specific Responsibilities/Comments** |
| Tester | 1 | * Make a test plan. * Make a solution for the error that occurs |
| Implementer | 1 | Implement and test the project in develop  Task details :   * Try the app according to the flow which has been made. * Keep records of everything events that occur during implementation |

* 1. **System**

The following is a table list of equipment used for the implementation of testing.

|  |  |
| --- | --- |
| **System Resources** | |
| **Resources** | **Name/Type** |
| URL/Application   * Web UI * RestAPI * Mobile App | <https://edutiv-web.vercel.app>  <https://edutiv-capstone.herokuapp.com>  app-release.apk |
| PC   * Processor * RAM * Operation System | * Intel Coleron CPU N2920 * 4 GB * Windows 10 Pro 64-bit |
| Software Test | Katalon Studio  Vysor |
| Software Document | Microsoft Word  Microsoft Exel |

1. **Project Milestones**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Milestone Task** | **Effort** | **Start Date** | **End Date** |
| 1 | Plan Test | 100% | 31/05/2022 | 01/05/2022 |
| 2 | Design Test | 100% | 01/06/2022 | 19/07/2022 |
| 3 | Implement Test | 100% | 26/06/2022 | 21/07/2022 |
| 4 | Execute Test | 100% | 26/06/2022 | 21/07/2022 |
| 5 | Evaluate Test | 100% | 15/06/2022 | 21/07/2022 |

1. **Deliverables**

Test deliverables is a list of any documents that will be generated after the test is completed. The following are the documents produced after the testing process:

1. Test Plan

This document contains a plan for the application (system) testing process carried out by a designetes persen (tester) to check the modules and functions in the application and look for errors/bugs in the application.

1. Test Scenario and Test Case

This document will be in the form of a technical description of the plans that have been made n the test plan. So that the plans that have been made have a clear flow to be implemented.

1. Test Bug Report

This document contains the result of the tests that have been carried out on the application.

1. **Test Model**

The test is carried out using manual and automation testing method.

1. **Appendix A: Project Tasks**

Below are the test related tasks:

|  |  |
| --- | --- |
| 1 | Plan Test |
| 2 | Identify Requirement for test |
| 3 | Design Test |
| 4 | Identify and Describe Test Case |
| 5 | Implement Test |
| 6 | Record or Program Test Script |
| 7 | Execute Test |
| 8 | Evaluate Execution Test |
| 9 | Evaluate Test |