

Project Plan

for

Product Item Module

Myanmar Software Engineer Contest 2020

Team Name: Charmers Tech

Date: 9/11/2020

Version: Final Version

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**1. Project Overview**

“**Product Item Module**” project is an outsourcing project which intends to solve the human resource problem of Active-A company. This web application allows users to insert new product items, search product items, delete products and edit product information if users have appropriate permission.

**2. Project Organization**

This describes the way in which the development team is organized, the people involved and their roles and responsibilities in the team. Team name is “Charmers Tech” which are grouped by five members.

|  |  |  |  |
| --- | --- | --- | --- |
| No | Name | Role | Responsibilities |
| 1. | Kaung Myat Soe | Team Leader | Backend |
| 2. | Tint Tint Tun | Team Member | Frontend, Documentation |
| 3. | Nann Phue Phue Pwint Wai | Team Member | Frontend, Documentation |
| 4. | Hlaing Yamin Thu | Team Member | Tester, Documentation |
| 5. | Wunna Moe | Team Member | Tester, Documentation |

**Table 1: Project Organization**

**3. Project Scope**

|  |  |
| --- | --- |
| Project Name | “Product Item Module” |
| In Scope | Users can operate CRUD of Product Items via laptop or desktop browsers . |
| Out of Scope | This web application is a part of Stock controller system and CRUD of product item. So, we assumed that users use this web app via laptop or desktop. So, our project has some limitation for mobile phones. |
| Deliverable | Throughout the project, our team must deliver the first version of documentation, deployment note and final version of documentation. |
| Timeline | 27/10/2020 : Submit First Version of Documentation  1/11/2020: Present update version of documents and prototype of UI and API  7/11/2020: Submit Deployment Note and UAT  9/11/2020: Submit Final Version of Documentation and code development |

**Table 2: Project Scope**

**4. Project Schedule**

|  |  |  |  |
| --- | --- | --- | --- |
| No | Task | Start Date | End Date |
| 1. | Set Up System Requirements | 24/10/2020 | 25/10/2020 |
| 2. | Assign Tasks to all members | 25/10/2020 | 25/10/2020 |
| 3. | Prepare First Version of Documentation | 26/10/2020 | 27/10/2020 |
| 4. | Submit First Version of Documentation | 27/10/2020 | 27/10/2020 |
| 5. | Start User Interface Design and Backend | 27/10/2020 | 29/10/2020 |
| 6. | Working on UI Design, Backend, Presentation, Testing and Updating the documentation | 30/10/2020 | 31/10/2020 |
| 7. | Make Presentation | 1/11/2020 | 1/11/2020 |
| 8. | Continuously, Working on UI Design, Backend, Testing and Updating the documentation | 2/11/2020 | 6/11/2020 |
| 9. | Submit Deployment Note, UAT document and Project Demo | 7/11/2020 | 7/11/2020 |
| 10. | Submit Final Version of Documentation | 8/11/2020 | 9/11/2020 |

**Table 2: Project Schedule**

**5. Milestones and Monitoring**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Date | Documentation | Backend | Frontend | Testing |
| Milestone 1 For First Version of Project Plan | 25/10/2020 | **Start** | **Start** | **Start** | **Start** |
| 26/10/2020 | **Working on it** | **Working on it** | **Start** | **Start** |
| 27/10/2020 | **Done(1st Version)** | **Working on it** | **Stuck** | **Start** |
| Milestone 2 For Presentation and Demo | 28/10/2020 | **Working on it** | **Working on it** | **Working on it** | **Working on it** |
| 29/10/2020 | **Working on it** | **Working on it** | **Working on it** | **Working on it** |
| 30/10/2020 | **Stuck** | **Working on it** | **Working on it** | **Working on it** |
| 31/10/2020 | **Done (2nd Version)** | **Done (API)** | **Done (Main Dashboard)** | **Working on it** |
| Milestone 3 For Deployment Note, and Final Version of Project | 1/11/2020 | **Working on it** | **Working on it** | **Working on it** | **Working on it** |
| 2/11/2020 | **Working on it** | **Working on it** | **Working on it** | **Working on it** |
| 3/11/2020 | **Stuck** | **Working on it** | **Working on it** | **Working on it** |
| 4/11/2020 | **Working on it** | **Working on it** | **Working on it** | **Working on it** |
| 5/11/2020 | **Done (3rd Version)** | **Done (1st Demo)** | **Done (1st Demo)** | **Working on it** |
| 6/11/2020 | **Done** | **Done** | **Done** | **Done** |
|  | 7/11/2020 | **Working on it(updating)** | **Working on it(updating)** | **Done** | **Working on it** |
|  | 8/11/2020 | **Done** | **Done** | **Done** | **Done** |
|  | 9/11/2020 | **Done** | **Done** | **Done** | **Done** |

**Table 3: Milestones and Monitoring**

* **Represent a preparing condition of project**
* **Represent a working condition of project**

* **Represent a trying condition of project**
* **Represent a finishing condition of project**

**6. Development Plan**

The hardware and software required for the development and deployment of the system includes:

|  |  |  |
| --- | --- | --- |
| **Hardware Requirement** |  | PC and Internet Access |
| **Software Requirements** | Operating System | Window 10 pro |
|  | Application | Xampp (V: 3.2.4),  VS Code,  Post Man, GitHub |
|  | Web Server | Apache (V: 2.4.46) |
|  | Browser | Chrome, Microsoft Edge |
| **Using Language** | Frontend | HTML5, CSS, Bootstrap4 |
|  | Backend | PHP 7.4.11 |
|  | Database | MySql 15.1 |

**Table 4: Project Scope**

**7. Risk Plan**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Category | Identify Risks | Risk Level | Mitigate Strategy |
| 1. | Technology Risk | Unknown Technology such as API | High | Prepare prototype and tested |
| Difficulties in deployment process | High | More detail on deployment note (step by step) |
| 2. | Organization Risk | Misunderstanding with client regarding project requirements and expectations | High | Update client more frequently along the way with project progress |
| Adjust the time with team members for meetings | High | Set a specific meeting date and time in advance |
| 3. | Project Management Risk | Unexpected loss of valuable information and forget to save modified some files | High | Use GitHub to share valuable information within members and to use as a backup file |

**Table 5: Identify Risks and Mitigate Strategy**

**8. High Level Design**

**REST**

**API**

**File System**

To store images & other files

**Web Server**

Apache

**Frontend**

**User**

**MySql**

Database

**9. Layering Architecture**

User Interface Web application

Rest API

Model

Business Logic Layer

Unit Test

Data Access Layer (DAL)

PHP Data Object

MySql

Database

**10. Test Plan**

**10.1 Overview of Test Plan**

Test plan is vital to the system. It makes a logical assumption that if all parts of the system are correct, the goal will be successfully achieved. “**Product Item Modules**” is tested by using **unit testing**. A series of testing are performed for the proposed system before the system is ready for **user acceptance testing.**

**10.2 Testing Scope**

**In Scope:** Users can operate CRUD of Product Items via laptop or desktop browsers such as Chrome, Microsoft Edge.

Functional testing for the following functions is in Scope of Testing

1. Main Dashboard

2. Search Product

3. View Product Detail

4. Add Product

5. Edit Product

6. Delete Product

**Out of Scope:** Performance Testing was not supported for this application.

**10.3. Test Type**

1. Unit Testing
2. User Acceptance Testing
3. Browser Comparability Testing

Since this application is browser-based web application, “Comparability Testing” shall be performed with different browsers and different hardware.

|  |  |  |
| --- | --- | --- |
| No | Item To be Tested | Description |
| 1. | Desktop browser compatibility | Microsoft Edge (Version :86.0.622.61),  Chrome (Version:86.04240.111), |

**10.4. Test Environment and tools**

|  |  |
| --- | --- |
| **URL** | This application can be tested via following links,  **<https://itemmodule.herokuapp.com/SE2020/App/>**  You can test this module from the following link after finishing deployment steps.  [**http://localhost/SE2020/App/index.php**](http://localhost/SE2020/App/index.php)  **(or)**  [**http://localhost:90/SE2020/App/index.php**](http://localhost:90/SE2020/App/index.php) |
| **Operating System** | **Window 10 Pro (64bit)** |
| **Application** | **Xampp (Version: 3.2.4)** |
| **Database** | **MySql (Version:15.1)** |

**10.5. Test Cases**

Describes the test cases that will be employed to test CRUD of product item module.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Case | Description | Expected Result | Pass/Fail | Actual Result |
| 1. | Click on “View Detail” | Make sure “View” Page should appear | Pass | “View Product” Page appear |
| 2. | Click on “Add Product” | Make sure “Add Product” Page should appear | Pass | “Add Product” Page appear |
| 3. | Click on “Edit Product” | Make sure “Edit Product” Page should appear | Pass | “Edit Product” Page appear |
| 4. | Click “Delete Product” | Make sure “Delete Product” page should appear | Pass | “Delete Product” Page appear |

**Table 6: Sample Test Cases of CRUD**

**10.6 Test Data**

This web application will use following test data validations:

**Data Type**

Application uses varchar type and integer for product name and description, integer for stock balance, float for price.

**Length**

If it defines stock balance length is 5, then it stores either equal to length or less than length but not equal to zero in “Add Product”.

**Blank Filed**

If the data needed field is blank then it displays alert message box.

**Format**

The format of file type must be (.jpeg and .png) format. If user inserts another format then it never accepts.