**Assignment – 1**

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| Student Name/ID Number: | Francis Roel L. Abarca – BDSE-0922-113 |
| Unit Number and Title: | Develop Project Proposal |
| Academic Year: | 2022-2023 |
| Unit Assessor: | Arvinder Kaur – Mentor |
| Project Title: | Develop Enterprise Applications |
| Issue Date: | June 13, 2023 |
| Submission Date: | June 28, 2023 |
| Internal Verifier Name: | Arvinder Kaur – Mentor |
| Date: | June 14, 2023 |

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| **Learner declaration** |
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| I certify that the work submitted for this assignment is my own and research sources are fully acknowledged.  Student signature: Date: 6/14/2023 |

1. **Project Introduction(Group)**
   1. **Project Background (Group)**

The "Meals On Wheels" project aims to develop an enterprise application for MerryMeal, a charitable organization. MerryMeal provides hot lunch meals to adults who are unable to cook for themselves due to age, disease, or disability. The project focuses on designing software that facilitates member and caregiver registration, partner and volunteer registration, fundraising, menu planning, meal delivery management, food safety, needs reassessment, and management information systems.

The project is being developed by a team of full-stack web developers at Unity One Solutions. The team's responsibilities include creating a software design document, conducting a feasibility study, performing risk analysis, and developing a test plan. The tools and technologies used include Visual Studio Code, PHPMyAdmin, Laravel, Spring/Spring Boot, React, Angular, Apache Tomcat, and MySQL Server.

The goal is to deliver a high-quality application that improves MerryMeal's operations and user experience. The team will address performance issues as necessary to ensure effective functionality.

* 1. **Pain Points [Group)**

The following provides an overview of key strengths, weaknesses, opportunities, and threats associated with Merry Meals.

1. **Strengths**
2. **Weaknesses**
3. **Opportunities**
4. **Threats**
   1. **Project Objectives**
   2. **Project Goals**
   3. **Project Scope**
5. **Project initiation (Group)**
   1. **Project Stakeholder**
      1. Sponsor of Merry on wheels application
      2. Mr. David Project manager of Unity One Solution
      3. Member of Merry meals charity organizations as a client
      4. Merry meals project team’s member
   2. **Feasibility study (Group)**
      1. **Technical Feasibility**

Technical feasibility is concerned with “Can We Build / Develop It?”

* + - 1. **Familiarity with application**

**Familiarity with technology**

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* + - 1. **Project Size**

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* + - 1. **Hardware, Software and Network requirement**
    1. **Operational feasibility**
    2. **Economic feasibility**

**Cost Benefit Analysis**

* **Cost analysis**

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| List of cost needed | Description of activity | Total cost in month |
| Requirement gathering |  | $100 |
| Hardware |  |  |
| Software |  |  |
| Hosting |  |  |
| Maintenance |  |  |
| Design Implementation |  |  |
| Human resource |  |  |
| Marginal / urgent cost |  |  |
| Total cost |  |  |
| Total cost expected |  |  |

* **Benefit analysis**

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| --- | --- | --- |
| Benefit gotten |  | Const / Month |
| Direct benefit |  |  |
| Indirect benefit |  |  |

* **Return in investment**
  + - 1. **Direct Cost and Benefit**

Tangible and intangible cost and benefit as following:

* + 1. **Schedule feasibility**
    2. **Risk Feasibility**

List of possible risk feasibility will be conducted:

* + - Avoid SQL Injection and hackers by implementing security.
    - Maintenance will be conducted weekly.
    1. **Legality Feasibility**
  1. **UI/UX Design Consideration (**Individual)
     1. **Menu Bar (Navbar)**

Providing easier access to something is very important to do. Simply by designing the menu bar as easily

* + 1. **Content**

The main content of the Merry Meals application provides some information related.

* **Layout and design clarity**

Consider when choosing font or typography, high quality images **Functionality**

Login And registration

* **Responsiveness**

The most important aspect of modern design is responsiveness;

* **Short** **Loading** **Time**

Nothing irritates visitors more than slow loading times when searching for information.

* + 1. **Visual Design**
* **Unity**

Use this to create harmony between page elements so that they appear to belong together and users aren't distracted by chaotic (for example, misaligned) layouts.

* **Balance**
* **Contrast**
* **Scale**
* **Dominance**
  1. **Dependencies (Group)**
     1. **Logical dependencies**

This dependency is critical for project completion and is a component of the project.

* Complete Software Design Document.
* Complete Feasibility study.
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  + 1. **Resource dependencies**

Resource dependency are driven by constraint

* Meal availability is contingent on funding raised through donors or supporters.
* Meal delivery depends on the volunteer's partner and rider.
  + 1. **External dependencies**

Based on outside factor and unexpected event

* Natural disasters that make delivery delays.
  1. **Project Assumptions (Group)**
     1. **Resources**

Possible resource will be taken in Merry Meals Application

* Human resource that will be working in Merry Meals

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* + 1. **Finance**

Possible finance will be taken in Merry Meals Application

* Human resource budget for all Unity One Staff.
  + 1. **Partner**
* Merry Meals food production complies to FSSC (Food Safety System Certification).
* Merry meals food has HALAL certification following halal regulation.
  + 1. **Project**
* Merry Meals Website will be conducted for further maintenance.
* SSL Certification to guarantee that.
* backed up every day within 10 hours.
* range of 1 month of work and for the testing will be conducted by its developer
  1. **Project Constraint(Group)**
     1. **Client**
* Hot meals can be delivered under a radius 10 KM.
* Frost meals can be delivered above a radius 10 KM.
* Service only available every day except Saturday and Sunday.
* Different ages of customers will be considered in developing the Merry on Wheels website in order to avoid misleading or misunderstanding stuff.
  + 1. **Time**
* Project Merry on Wheels website must be developed under a range of 1 month.
  + 1. **Scope**
* Scope of project for Merry on Wheels that has been setted before can’t be done if there’s budget / cost growth over calculated.
  + 1. **Cost**
    2. **Resources**
* Limited software, technology, hardware and so on and required
  + 1. **Environment**
* Convenience workplace for developer teams.
* Team members must promptly communicate with clients or other stakeholders.
  + 1. **Skill**
* The Java-skilled personnel allocated must also meet the project's skill requirements,
  + 1. **Man Power**
* Team members are proficient in Java,.
  1. **Project Milestone: Progress to measure to achieve goals –(group)**
     1. **Requirement gathering**

The Merry Meal project manager will speak with Merry Meal's employees and stakeholders to find out what they envision

* + 1. **Validate expectations for requirements**

informed of the requirements after the project manager has compiled all of the requested requirements and listed them in a document.

* + 1. **Predevelopment planning**

The project manager will assign each team member their task and duties once the requirements and development plan have been finalized.

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* + 1. **Implementation**

beginning of the project's development based on the predevelopment stage.

* + 1. **Quality Assurance testing**

Each time a team's iteration is finished, quality control is performed.

* + 1. **User Acceptance testing**

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* + 1. **Deployment**

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* + 1. **Support**

After the project has been deployed, Merry Meal's developer team will continue to provide support for it for the predetermined amount of time.

* 1. **Project deliverables (Group)**
     1. **Internal deliverables**
* Web design proposal and software design document (SSD)
  + 1. **External deliverables**
* Finish Meal on Wheel web application
  + 1. **Planning deliverables**
* Project Scope
* Budget
* Project schedule
  1. **Functional description (Group)**

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| --- | --- | --- | --- |
| No | User type | Description | Roles based access |
| 1 | Member |  | * Register * Login * Order and view meal * Update profile, view meals track |
| 2 | Care giver/Drivers | Merry on Wheels support teams who help the members |  |
| 3 | Partners | Preparing the food |  |
| 4 | Volunteers | Participate in Charity activity that’s done by Merry Meals Organization | * Register * Login * View Other member, update profile |
| 5 | Donator / supporter |  |  |
| 6 | Administrator |  | * Register * Login * Manage donation * Manage member * Manage menu / order * Manage driver * Manage information systems |

* 1. **Risk analysis and description (Group)**
     1. **Identify possible area of risk in the application development** 
        1. **Internal risk**

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* **Technology Risk**
* **Physical Risk**
* **Human Factor Risk** 
  + - 1. **External Risk**

* **Political Risk**

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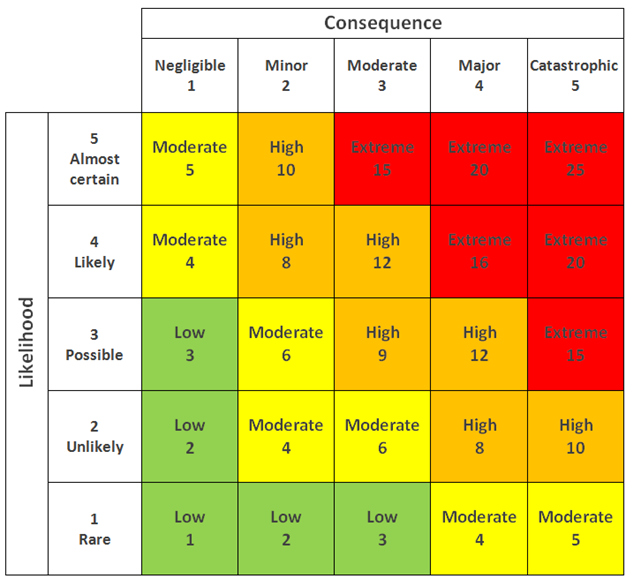
* **Natural Risk**

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* **Economic risk**
  + 1. **Analyze and Evaluate**

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| **No** | **Risk type** | **Risk description** | **Risk Impact** |
| **1** | Technological |  |  |
| **2** | Human Factor |  |  |
| **3** | Economic |  |  |
| **4** | Physical |  |  |
| **5** | Natural |  |  |
| **6** | Political | One of the team members' governments banned one of the software or platforms. | If any software or platform used during the development phase is banned, the developer must find an alternative to the banned application and adapt and learn it all over again. This would also cause a significant delay in the project's progress. |

* + 1. **Prepare Risk Matrix**



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| **No** | **Risk type** | **Risk description** | **Likelihood (1-5)** | **Consequence (1-5)** | **Risk rating** | **Risk level** |
| 1 | Technological | Poor quality code when developing application. When a project's quality does not meet stakeholder expectations, there is a significant risk that the project will fail. Poor quality code can occur for a variety of reasons, including project underestimation and developers rushing to complete iterations. | 4 | 5 | 20 | Extreme |
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* + 1. Risk Response Analysis

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| **No** | **Risk type** | **Risk description** | **Risk Response Plan** |
| **1** | Technological |  |  |
| **2** | Human Factor |  |  |
| **3** | Economic |  |  |
| **4** | Physical |  |  |
| **5** | Natural | natural disaster come that caused a lots damage to the workstation and perhaps loose many human resources. | Create a safe physical workspace for team members to prevent minor disaster yet further to major disaster. Apply job insurance to sateholder’s contract |
| **6** | Political | One of the team members' governments banned one of the software or platforms. | Bypass from country or region restriction using various dedicated VPN or DNS |

1. **Project Team (Group)**
   1. **Team’s Member Information**

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| **Partner** | **Learner ID** | **Full Name** | **Group ID** |
| ITBS |  |  |  |
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* 1. **Team’s Member Role and Responsibilities**

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| **Name** | **Module** | **Details Tasks** |
| MO1 | 1. Partners and Volunteers registration with their details 2. Member and Caregivers registration with their requirements |  |
|  | 1. Fund raising through donors/supporters |  |
|  | 1. Menu Planning and Preparation 2. Meal Delivery Management of partners and riders |  |
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1. **Project schedule (group)**

**Schedule**

**Gantt Chat**

1. Detailed Plan – Individual – at the features level
2. **UML/Flowchart/**pseudocode/storyboards (Individual)
3. **Project Test Planning (**Individual**)**
   1. Food Safety Management Test plan
      1. **Unit testing**

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| **Type of Testing** | **Test Scenario ID** | **Test Scenario** | **Number of Test Cases** |
| Unit testing | TS001 | Verification of menu creation functionality for partners. | 1 |
| TS002 | Validation of menus to display features for partners. | 1 |
| TS003 | Validation of menus to display member functions. | 1 |
| TS004 | Verification of Menu Management Functionality | 1 |

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| **Scenario ID** | **Test Case ID** | **Test Case** | **Preconditions** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Pass/Fail** |
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| **Scenario ID** | **Test Case ID** | **Evidence** |
| TS001 | TC001 |  |
| TS002 | TC002 |  |
| TS003 | TC003 |  |

* + 1. **User Acceptance Testing**

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| **Type of Testing** | **Test Scenario ID** | **Test Scenario** | **Number of Test Cases** |
| User acceptance testing | TS001 | Make sure members can see the entire menu. | 1 |
| TS002 | Make sure your partner can create menus. | 1 |
| TS003 | Allows partners to see their own menu. | 1 |
| TS004 | Allow members to review the Food Safety Statement. | 1 |

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| **Scenario ID** | **Test Case ID** | **Test Case** | **Preconditions** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Pass/Fail** |
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| **Scenario ID** | **Test Case ID** | **Evidence** |
| TS001 | TC001 |  |
| TS002 | TC002 |  |
| TS003 | TC003 |  |

* + 1. **Performance testing**

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| **Type of Testing** | **Test Scenario ID** | **Test Scenario** | **Number of Test Cases** |
| Performance testing | TS001 | Testing the performance of Menus page | 1 |
| TS002 | Testing the performance of Menu Posting page | 1 |
| TS003 | Testing the performance of Menu Detail page | 1 |
|  | TS004 | Testing the performance of Food Safety Declaration page | 1 |

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| **Scenario ID** | **Test Case ID** | **Test Case** | **Preconditions** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Pass/Fail** |
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| **Scenario ID** | **Test Case ID** | **Evidence** |
| TS001 | TC001 |  |
| TS002 | TC002 |  |

* + 1. **Portability testing**

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| **Type of Testing** | **Test Scenario ID** | **Test Scenario** | **Number of Test Cases** |
| Unit testing | TS001 | Open Merry Meal’s website on a Desktop | 1 |
| TS002 | Open Merry Meal’s website on a Tablet | 1 |
| TS003 | Open Merry Meal’s website on a Smartphone | 1 |

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| **Scenario ID** | **Test Case ID** | **Test Case** | **Preconditions** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Pass/Fail** |
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| **Scenario ID** | **Test Case ID** | **Evidence** |
| TS001 | TC001 |  |
| TS002 | TC002 |  |
| TS003 | TC003 |  |

* + 1. **Compatibility testing**

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| --- | --- | --- | --- |
| **Type of Testing** | **Test Scenario ID** | **Test Scenario** | **Number of Test Cases** |
| Unit testing | TS001 | Open partners and volunteer registration page using Microsoft Edge. | 1 |
| TS002 | Open partners and volunteer registration page using Mozilla Firefox. | 1 |
| TS003 | Open partners and volunteer registration page using Google Chrome. | 1 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Scenario ID** | **Test Case ID** | **Test Case** | **Preconditions** | **Steps** | **Test Data** | **Expected Results** | **Actual Results** | **Pass/Fail** |
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| **Scenario ID** | **Test Case ID** | **Evidence** |
| TS001 | TC001 |  |
| TS002 | TC002 |  |
| TS003 | TC003 |  |