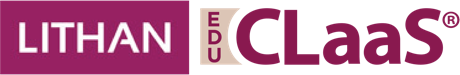
Assignment 1 Brief

|  |  |
| --- | --- |
| **Product Name** | Applied Degree in Software Engineering (BDSE) |
| **Qualification Name** | Applied Degree in Software Engineering/ Higher Diploma in Software Engineering |
| **Assignment Title** | Develop Project Proposal |
| **Module Name (BDSE)** | Develop Enterprise Applications |

|  |  |
| --- | --- |
| **Student Name** | **Mentor Name** |
| **Wildan Luqmanul Hakim** | **Arvinder Kaur** |

|  |  |
| --- | --- |
| **Project Title** | Meals on Wheels Software Design Document. |

|  |
| --- |
| **Learner declaration** |
| I certify that the work submitted for this assignment is my group work, and research sources are fully acknowledged.      Student signature: Date: January 23, 2023 |

**Status :** In Progress

**Stakeholder :** Merry Meal

**Manager :** Mr. David.

**Project Lead :** Arvinder Kaur

**Project Member:**

* [Wildan Luqmanul Hakim](mailto:WildanLuqmanul@gmail.com)
* [Bagus Nanda](mailto:gusnanda0703@gmail.com)
* [Steffansim](mailto:steffansim@gmail.com)
* [Norman Tseu](mailto:normantmhwork@gmail.com)

**Purpose of this Assignment is used for the following:**

Formative Assessment of learners in the Module ‘Develop Enterprise Applications’ of the Course ‘Applied Degree in Software Engineering’.

**Assignment Assumptions**

You can make following assumptions while implementing the assignment:

This assignment is not for commercial use and hence not fine-tuned for performance, but it is desirable that you focus on performance issues and address them, if any

## 

[**1. Software Design Document**](#_dftwo87qf7pg) **4**

[Project Title - Meals on Wheels](#_c10o11xva0xf) 4

[Project Introduction](#_ovevze3gs7m) 4

[Business Analysis](#_rwxp6dfqv529) 4

[SWOT Table Analysis of Meals on Wheels](#_ne9a1othzl6x) 7

[Project Goal:](#_ubibe9ts0wu0) 8

[Project objective:](#_9a8vucf1c39f) 8

[General Constraints:](#_v0isw8uo61km) 8

[Project Scope:](#_futocqk086du) 8

[**2. Feasibility Study**](#_8h62w19btfxt) **11**

[What is a feasibility study?](#_ndrtdxalrssh) 11

[When should you conduct a feasibility study](#_newndv5dfb7b) 11

[Four elements of a feasibility analysis](#_r722hdqeoe4e) 12

[Technical Feasibility](#_ss5ucedbfjxf) 13

[Operational Feasibility](#_5wasiq468ceg) 15

[Financial Feasibility](#_ehr6gdkrl77l) 15

[Legal Feasibility](#_i8omqz7ecmqv) 16

[**3. Risk Analysis and Evaluation**](#_z7lk3a19a01n) **17**

[Types of Risk Analysis](#_ko6vx3sqkzga) 17

[Analyze and evaluate:](#_woq2or7ynlz3) 18

[Prepare Risk Matrix:](#_s1ktprf1c3d7) 19

[Risk Response Analysis:](#_lia0zqc1plo3) 19

[**4. Test planning**](#_1wd8vl3acdxo) **20**

[Test Scenarios:](#_15nm8h6wu3fi) 20

[Scenario 1](#_ayli6at4pgf6) 20

[Scenario 2](#_rnso24a8z93e) 21

[Scenario 3](#_nif18ad4elpa) 22

[Scenario 4](#_wjj845m7g3t1) 22

[**Bibliography**](#_aq4hjrw5aqkx) **23**

## Software Design Document

### Project Title - Meals on Wheels

### Project Introduction

Our team was tasked by a company named MerryMeal to submit proposals for software development. The proposal includes design suggestions, development plans, functional application, and developing the application based on the company business plan.

The company “MarryMeal” is a charitable organization that prepares and delivers a hot noon meal to qualified adults living at home who are unable to cook for themselves or maintain their nutritional status due to age, disease, or disability. The service will be available Monday through Friday. Frozen meals will be provided to members who are not within a 10-kilometer radius of their outsourced kitchens and support over the weekend. MerryMeal has partnered with several food service providers across the country to provide the quickest delivery possible.

### Business Analysis

Based on the description above there are several problem statements that need to be addressed. There are several strategies available: SWOT Analysis, MOST Analysis, VMOST Analysis, & PESTLE Analysis.

**SWOT** stands for Strength, Weakness, Opportunity, & Threat. The purpose of this analysis method is to identify the strength and weakness of the organization's business plan, as well as, to find opportunities and threats (CTC, 2022). It helps in developing awareness of the situation so that the organization can make definitive strategic planning and decision making. In other words, SWOT analysis helps the company to explore new possibilities or solutions to problems, making the best decision for the company, determining where change is possible, and identifying threats (CTC, 2022). The purpose of SWOT itself is to reveal positive forces that work together and potential problems that need to be addressed. This can be done through listing internal and external factors.

Every SWOT analysis will include the following four categories. Though the elements and discoveries within these categories will vary from company to company. Kenton, Murray, & Courage (2022) said that SWOT analysis is not complete without each of these elements:

* **Strengths** describe what an organization excels at and what separates it from the competition.
* **Weaknesses** stop an organization from performing at its optimum level.
* **Opportunities** refer to favorable external factors that could give an organization a competitive advantage.
* **Threats** refer to factors that have the potential to harm an organization.

The second analysis method is **MOST** analysis, this method of analysis takes a top-down approach where the organization analyzes based on the four elements, namely mission, objectives, strategy, and tactics (Kholghi, 2022).

* **Mission** describes what the organization wants to achieve.
* **Objective** describes what are the goals that the organization is working towards?
* **Strategy** describes the long-term approach to achieving the objectives.
* **Tactics** describes the activities that need to be carried out to ensure the organization is able to achieve the strategy.

The MOST Analysis helps with the overview of the critical workings of the business and aids in identifying wastage, streamlining processes, and achieving goals. MOST analysis allows the organization to align its long-term goals with day to day tasks, and MOST analysis is designed to ensure internal processes of the business move in the same direction towards the organization or company mission (Cook, 2022; Kholghi, 2022).

Third analysis method is **VMOST** analysis. VMOST Analysis is a structured strategic planning tool used by organizations and teams to define, align, and measure progress toward their long-term goals (Cio, 2023). VMOST consists of five elements, which are:

* **Vision:** Describe the long-term goal or desired future state of the organization. It provides a clear picture of what the organization envision or wants to achieve, and it serves as a guideline for all decision-making and actions.
* **Mission:** Describe the purpose or reason for the organization’s existence which consists of core values and what it seeks to accomplish.
* **Objectives:** Describe the specific, achievable, and relevant goals to help the organization move towards its vision. The objectives should be aligned with the organization’s mission.
* **Strategies:** Describe the organization's broad plans or approaches to achieve its objectives.
* **Tactics:** Describe the specific actions or tasks that the organization will take to implement its strategies and should be aligned with the organization’s objectives.

Using the VMOST framework can help organizations clarify their goals, develop effective strategies and tactics, and ensure that all actions are aligned and working towards the same desired outcomes. It can also help organizations to monitor and measure progress toward their goals and make any necessary adjustments along the way (Cio, 2023)..

Based on The Chartered Institute of Personnel and Development (2021) A **PESTLE** analysis studies the key external factors (Political, Economic, Sociological, Technological, Legal and Environmental) that influence an organization. It can be used in a range of different scenarios, and can guide people, professionals and senior managers in strategic decision-making. PESTLE analysis is a broad fact-finding activity around the external factors that could affect an organization’s decisions, help to reduce threats and maximize opportunities, and consists of six elements which are:

* **Political:** Factors may be altered by the government’s influence on a country’s infrastructure. This may include tax policy, employment laws, environmental regulations, trade restrictions, tariffs, reform and political stability. Charities may need to consider where a government does not want services or goods to be provided.
* **Economic:** Factors include economic growth, interest rates, exchange rates, inflation, wage rates, working hours and cost of living. These factors may have major impacts on how charities operate and make decisions.
* **Sociological:** Factors include cultural aspects, health and safety consciousness, population growth rate and various demographics.
* **Technological:** Factors include ecological and environmental aspects and available products and services. Charities may need to innovate, having considered the compatibility with their own technologies and whether they are transferable internationally.
* **Legal:** Factors include any law which may impact on the charities’ operations, including NGO regulation and criminal and terrorist legislation which will differ from country to country
* **Environmental:** Factors include an awareness of climate change or seasonal or terrain variations which may affect charities’ service delivery methods.

By analyzing the six factors above, organizations can assess any risks specific to their industry and make informed decisions, and it can also highlight the potential for additional cost and prompt further research to be built into the future plans (CIPD, 2021).

For this project, our team uses SWOT analysis because SWOT analysis is suitable for the project since it is simple and straightforward, does not require technical expertise, or formal training, anybody with an understanding of the organization in a situation and the sector in which it operates can conduct it. Also by examining each of the four components of the SWOT, we may learn vital information to achieve our goals. SWOT analysis also encourages strategic planning, provides in-depth analysis of internal and external complex aspects, flexible, and versatile (Javatpoint, 2022).

### SWOT Table Analysis of Meals on Wheels

|  |  |
| --- | --- |
| **Strength** | **Weaknesses** |
| * Already have clear goals. * Have several collaborative partners. * Employee morale high | * Services unable to reach members that live more than 10 km away from the company. * Not open full week. * Since its charity, it heavily relies on sponsorships and donations. |
| **Opportunity** | **Threat** |
| * Rising health consciousness in selecting foods. * Helping in maintaining the psychological well-being of the qualified adults. * Open donation. | * Driver safety. * Possible defect on food quality. * Possibility in which the food becomes bad or rotten which may cost negatively on the members. |

### Project Goal:

The purpose of Meals on Wheels is to provide hot noon meals for qualified adults, those who are too old, have a disease, or disability, to maintain a healthy diet. Meals on Wheels itself is a charitable organization thus, has partnered with several food service providers and donations. The meals services are managed by a caregiver and the meals will be delivered by a rider from the company. The company also accepts those who want to volunteer as a rider or caregiver to help with the charity.

### Project objective:

Develop an enterprise application that prepares and delivers a hot noon meal to adults due to age, disease, or disability.

### General Constraints:

The general constraint for the Meals on Wheels project is time. There is roughly less than one month allocated to the development, testing, and documentation of this project. This may result in fewer risks, how the core functionality of the system will be unaffected.

### Project Scope:

**System Overview -** The application will have the following functionality:

1. Members and Caregivers registration with their requirements

2. Partners and Volunteers registration with their details

3. Fund raising through Donors / Supporters

4. Menu Planning and Preparation

5. Meal Delivery Management of partners and riders

6. Food Safety Management

7. Reassessment of need evaluation, and,

8. Management Information System for effective management

**Functional:**

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **User Type** | **Description** | **Role Based Access** |
| 1 | Member | For qualified Adults. | Required to register & login. View daily meals & profile. Able to send feedback or evaluation about the meals. |
| 2 | Caregiver | Workers who cook meals and provide services. | Required to register & login. View daily meals & profile. Edit or add meals on the website. |
| 3 | Rider | Provide delivery services. | Required to register & login. View delivery schedule that has been assigned. Edit or view profile page. |
| 4 | Volunteer | People who want to help as a rider or caregiver. | Required to register & login. Based on the roles that they choose, either as a caregiver or rider, they are able to access its role. |
| 5 | Partner | For outside organizations that want to collaborate. | Required to register for partnership. If both companies agree to collaborate, the company brand will be mentioned on the website. |

**The structure of the application are:**

|  |  |
| --- | --- |
| **Page** | **Description** |
| Landing Page | Only appears once if the visitor haven’t registered or login yet |
| Register Page | Registration for member, rider, & caregiver candidates.  Added a new page for those - who want to become a partner or volunteer |
| Login Page | Login functionality, forgot/update password. |
| Home page | Today’s meal. |
| Fundraising page | Form for donations or support. |
| Feedback & Evaluation Page | An input form contains: feedback about the meals today, about our services, or a specific request from members. |
| Contact Us Page | Contain Meal on Wheels contact info like email, phone number, location, and user feedback form. |
| About Us Page | Contain Meal on Wheels organization info like vision, mission, teams, partners, and sponsor. |
| Admin Page | Menu Planning & Preparation for next day meal.  Food Safety management.  Manage the food delivery ( the admin/caregivers assign the delivery schedules to the riders and partners ). |

## 

## Feasibility Study

### What is a feasibility study?

A feasibility study—sometimes called a feasibility analysis or feasibility report—is a way to evaluate whether or not a project plan could be successful. A feasibility study evaluates the practicality of your project plan in order to judge whether or not you’re able to move forward with the project (Martins, 2022).

It does so by answering two questions:

* Does our team have the required tools or resources to complete this project?
* Will there be a high enough return on investment to make the project worth pursuing?

Feasibility studies are important for projects that represent significant investments for your business. Projects that also have a large potential impact on your presence in the market may also require a feasibility study.

### When should you conduct a feasibility study

A feasibility study should be conducted after the project has been pitched but before any work has actually started. The study is part of the project planning process. In fact, it’s often done in conjunction with a SWOT analysis or project risk assessment, depending on the specific project.

Feasibility studies help:

* Confirm market opportunities before committing to a project
* Narrow your business alternatives
* Create documentation about the benefits and detriments of your proposed initiative
* Provide more information before making a go/no go decision

You likely don’t need a feasibility study if:

* You already know the project is feasible
* You’ve run a similar project in the past
* Your competitors are succeeding with a similar initiative in market
* The project is small, straightforward, and has minimal long-term business impact
* Your team ran a similar feasibility study within the past three years

Martina (2022) said one thing to keep in mind is that a feasibility study is not a project pitch. During a project pitch, you’re evaluating whether or not the project is a good idea for your company, and whether the goals of the project are in line with your overall strategic plan. Typically, once you’ve established that the project is a good idea, you’d then run a feasibility study to confirm the project is possible with the tools and resources you have at your disposal.

### Four elements of a feasibility analysis

There are four main elements that go into a feasibility study: technical feasibility, financial feasibility, market feasibility (or market fit), and operational feasibility. You may also see these referred to as the four types of feasibility studies, though most feasibility studies actually include a review of all four elements. (Martins, 2022)

**Technical feasibility** A technical feasibility study reviews the technical resources available for your project. This study determines if you have the right equipment, enough equipment, and the right technical knowledge to complete your project objectives. For example, if your project plan proposes creating 50,000 products per month, but you can only produce 30,000 products per month in your factories, this project isn’t technically feasible.

**Operational feasibility** An operational feasibility study evaluates whether or not your organization is able to complete this project. This includes staffing requirements, organizational structure, and any applicable legal requirements. At the end of the operational feasibility study, your team will have a sense of whether or not you have the resources, skills, and competencies to complete this work.

**Financial feasibility** Financial feasibility describes whether or not your project is fiscally viable. A financial feasibility report includes a cost/benefit analysis of the project. It also forecasts an expected return on investment (ROI), as well as outlines any financial risks. The goal at the end of the financial feasibility study is to understand the economic benefits the project will drive.

**Legal feasibility** is the process of examining a proposed restructuring or set of steps from a legal standpoint for any potential problems and creating a plan to be carried out during the restructuring's implementation stage so that the proposed restructuring includes a consolidated and integrated tax and legal assessment.

### Technical Feasibility

1. Hardware Requirements

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Hardware** | | |
| **Type** | **Server** | **Client** |
| 1 | Processor | Intel Xeon E5-2620 V4 2.1 Ghz | Intel Core i3 |
| 2 | Memory | 32 GB | 8 GB |
| 3 | Hard Drive | 4 TB | 1 TB |
| 4 | Network | Gigabit Network | Gigabit Network |
| 5 | Monitor | Monitor 24” | Monitor 24” |
| 6 | Keyboard | USB Keyboard | USB Keyboard |
| 7 | Mouse | USB Optical Mouse | USB Optical Mouse |

1. Software Requirements

|  |  |  |
| --- | --- | --- |
| **No** | **Software** | **Functionality** |
| 1 | Windows 10 | Operating System |
| 2 | Bootstrap, CSS, React JS | Web Creation |
| 3 | MySQL | Database Server |
| 4 | Tomcat | Web Server |
| 5 | Figma | Design |
| 6 | Google Chrome, Mozilla Firefox | Web Browser |

1. Network Requirements

|  |  |  |
| --- | --- | --- |
| **No** | **Network Device** | **Functionality** |
| 1 | Switch | Cable connecting network from workstation |
| 2 | UTP Cable | Connecting Medium |
| 3 | RJ 45 Connector | Cable connecting network with LAN Card |

1. Cloud Requirements

|  |  |  |
| --- | --- | --- |
| **No** | **Cloud Service** | **Functionality** |
| 1 | AWS |  |
| 2 | Azure |  |

1. Contractors

|  |  |  |
| --- | --- | --- |
| **No** | **Schedule** | **Contractor** |
| 1 | January 13, 2023 - February 06, 2023 | Unity One Solution |

1. Skills & Human Resource

|  |  |  |
| --- | --- | --- |
| **No** | **Requirements** | **Skills** |
| 1 | UI/UX Designer | Figma |
| 2 | Web Developer | HTML, CSS, JavaScript, Bootstrap, React JS, Java, MySQL. |

### 

### Operational Feasibility

|  |  |  |
| --- | --- | --- |
| **No** | **Requirements** | **Descriptions** |
| 1 | Performance | Can serve 1.000 requests at the same time. |
| 2 | Information | More accurate information with an accuracy of 5 decimal places. |
| 3 | Economy | Costs incurred are relatively lower due to errors reporting can be minimized. |
| 4 | Control | System control is carried out by limiting user rights. |
| 5 | Efficiency | More time-saving because the same data entry can be avoided by using a database. |
| 6 | Services | The level of satisfaction with services can be increased because the system presents information in a consistent format. |
| 7 | Operational Feasibility Value | Locally based system (for organizations only), with Layout common as possible, so it has a value of 8.5. |

### Financial Feasibility

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No** | **Type Cost** | **Development Cost** | **Annual Cost** | **Time** | **Note** | **Total** |
| **1** | **System Aspect** | | | | | |
| System Information | $4.000 | $2.000 | 1 Month | Main System |  |
| **Project Manager** |  |  |  |  |  |
| Analyst System | $4.000 | $2.000 |  |  |  |
| Programmer | $8.000 | $2.000 |  |  |  |
| Documentation & Acomodation | $3.000 | $1.500 |  |  |  |
| **Sub Total** | $19.000 | $7.500 |  |  | $26.600 |
|  | | | | | | |
| **2** | **Infrastructure Aspect** | | | | | |
| Server Computer | $2.000 | $0 |  |  |  |
| Workstation Computer (3 Unit) | $3.000 | $0 |  |  |  |
| Installation Network & Tools | $1.000 | $500 |  |  |  |
| **Sub Total** | $6.000 | $500 |  |  | $6.500 |
|  | | | | | | |
| **3** | **Maintenance Aspect, ETC** | | | | | |
| System Usage Training | $0 | $300 |  |  |  |
| Consultation | $500 | $0 |  |  |  |
| Maintenance | $500 | $250 |  |  |  |
| Human Resource Supplier | $700 | $0 |  |  |  |
| **Sub Total** | $1.700 | $550 |  |  | $2.250 |
| Total | | | | | | $35.250 |

### Legal Feasibility

1. Legal Feasibility Analysis

Legal feasibility is feasibility related to legality or legal force. Means that the information system proposed may not violate applicable law, either law determined by the government or established by law according to organizational regulations.

1. Legal Eligibility Value

Since all the software used is software open source or software that has been purchased legally, then the value of legal feasibility is 9.5.

## Risk Analysis and Evaluation

A multi-step process called risk analysis is used to lessen the impact of hazards on corporate operations. Risk analysis is a tool used by executives from a variety of sectors to make sure that all facets of their companies are secure from potential dangers. Regular risk analysis reduces the business's susceptibility to unanticipated events (Francisco, 2022).

### Types of Risk Analysis

Francisco (2022) said that risk analysis covers a wide range of topics, there are many approaches to analyzing risks or types of risk analysis. These include, but are not limited to, the following:

* **Risk Benefit & Cost Benefit Analysis**

A risk benefit analysis involves weighing the pros and cons (benefits and risks) of an action. Elements are ranked and evaluated against the impact of their potential success or failure. Meanwhile, a cost benefit analysis sums the projected or estimated costs of an action and weighs the total cost against the potential benefits and opportunities.

Both types of analysis help leaders carefully weigh their decision in pursuing a plan or action. Choosing to pursue a risk-heavy or cost-heavy action can result in losses.

* **Needs Assessment**

A needs assessment is a systematic process of identifying and evaluating organizational needs and gaps. It gives leaders an idea of where the business may be lacking and helps them refocus resources towards achieving goals more efficiently.

* **Business Impact Analysis**

A business impact analysis entails planning for operational disruptions caused by natural disasters and other external factors. It is the basis for investment in recovery, prevention, and mitigation strategies.

* **Failure Mode and Effect Analysis**

A failure mode and effects analysis is a systematic method of anticipating potential failures in business processes and mitigating their impact on customers. It improves product and service reliability and reduces the cost of failures.

* **Root Cause Analysis**

A root cause analysis focuses on identifying and eliminating root causes to solve problems. It helps in the prevention of recurring problems by targeting the ineffective systems behind them. Aside from failure mode and effects analysis, other root cause analysis tools are 5 Whys, 8D, and DMAIC (part of Six Sigma).

As we know Risk analysis is a multi-step process aimed at mitigating the impact of risks on business operations. In this project, we need to design a software for the company named “Meals on Wheels” that provides food service and delivery for qualified adults. During the planning phase, our team needs to identify possible areas of risks in the application development process.

#### Analyze and evaluate:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Risk Type** | **Risk Description** | **Risk Likelihood** | **Risk Impact** |
| 1 | Schedule Risk | Deadline got extended due to unclear requirements | Very unlikely | Very high |
| 2 | Technical Risks | SQLI/Invalid data inserted into the database through registration form | Unlikely | Very High |
| 3 | Technical Risks | Webpage fail to load on certain browsers, user cannot view page | Unlikely | Very High |
| 4 | Technical Risks | During peak hours, pages take longer than 6 seconds to load | Likely | Medium |
| 5 | Usability Risk | User takes too long to learn or fails to complete desired task | Likely | High |

#### Prepare Risk Matrix:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Risk ID | Risk | Likelihood (1-5) | Impact (1-5) | Risk Rating | Risk Level |
| 1 | Deadline got extended due to unclear requirements | 1 | 5 | 5 | Low |
| 2 | SQLI/Invalid data inserted into the database through registration form | 4 | 5 | 20 | High |
| 3 | Webpage fail to load, user cannot view page | 2 | 5 | 10 | Medium |
| 4 | During peak hours, pages take longer than 6 seconds to load | 3 | 4 | 12 | Medium |
| 5 | User takes too long to learn or fails to complete desired task | 3 | 5 | 15 | Medium |

#### Risk Response Analysis:

|  |  |  |  |
| --- | --- | --- | --- |
| S.No. | Risk Type | Risk Description | Risk Response Plan |
| 1 | Schedule Risk | Deadline got extended due to unclear requirements | Extend all next schedule |
| 2 | Technical Risks | SQLI/Invalid data inserted into the database through registration form | Use prepared statement for database queries |
| 3 | Technical Risks | Webpage fail to load on certain browsers, user cannot view page | Perform compatibility testing with multiple major browsers |
| 4 | Technical Risks | During peak hours, pages take longer than 6 seconds to load | Perform load testing with expected peak hour traffic |
| 5 | Usability Risk | User takes too long to learn or fails to complete desired task | Perform usability testing to improve UI/UX |

## 

## Test planning

### Test Scenarios:

|  |  |  |
| --- | --- | --- |
| Test Scenario ID | Test Scenario | Number of test cases |
| TS001-Unit testing | Ensure SQLI is prevented | 3 |
| TS002-Cross Browser testing | Ensure website is compatible with multiple browser | 3 |
| TS003-UAT testing | 1. Ensure user navigation is easy | 3 |
| TS004-UAT testing | 1. Ensure caregiver can add meals easily | 1 |

#### Scenario 1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Scenario ID | Risk No | Test Scenario | Preconditions | Test Step | Test Data | Expected Results |
| TS001 | 2 | User Login | User has the URL of the website | 1. Type in URL 2. Click on login 3. Enter fields with test data 4. Click submit | Email=user' or '1' = '1  Password=pass' or '1' = '1 | Login fail |
| TS001 | 2 | User Login | User has the URL of the website | 1. Type in URL 2. Click on login 3. Enter fields with test data 4. Click submit | Email=ali@gmail.com  Password=pass' or '1' = '1 | Login fail |
| TS001 | 2 | User Register | User has the URL of the website | 1. Type in URL 2. Click on login 3. Enter fields with test data 4. Click submit | Email=ali@gmail.com  Password=Robert'); DROP TABLE Students; -- | Table not dropped |

#### Scenario 2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Scenario ID | Risk No | Test Scenario | Preconditions | Test Step | Test Data | Expected Results |
| TS002 | 3 | Member view daily meal and give feedback | Google Chrome is downloaded | 1. Enter website URL 2. Click on register 3. Register as new user 4. Login with newly registered user 5. View daily meal 6. Give feedback 7. Logout | Email=ali@gmail.com  Password=abc123 | Webpages appears as expected and functionality work as expected |
| TS002 | 3 | Member view daily meal | Firefox is downloaded | 1. Enter website URL 2. Click on register 3. Register as new user 4. Login with newly registered user 5. View daily meal 6. Give feedback 7. Logout | Email=ali@gmail.com  Password=abc123 | Webpages appears as expected and functionality work as expected |
| TS002 | 3 | Member view daily meal | Edge is downloaded | 1. Enter website URL 2. Click on register 3. Register as new user 4. Login with newly registered user 5. View daily meal 6. Give feedback 7. Logout | Email=ali@gmail.com  Password=abc123 | Webpages appears as expected and functionality work as expected |

#### Scenario 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Scenario ID | Risk No | Test Scenario | Preconditions | Test Step | Test Data | Expected Results |
| TS003 | 5 | Test Case 1 | Member logged in | 1. Navigate to view profile page 2. Navigate to view meals page 3. Navigate to feedback page |  | User can navigate to target page easily |
| TS003 | 5 | Test Case 2 | Caregiver logged in | 1. Navigate to view profile page 2. Navigate to view meals page 3. Navigate to add meals page |  | User can navigate to target page easily |
| TS003 | 5 | Test Case 3 | Rider logged in | 1. Navigate to view profile page 2. Navigate to view delivery schedule page |  | User can navigate to target page easily |

#### Scenario 4

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Scenario ID | Risk No | Test Scenario | Preconditions | Test Step | Test Data | Expected Results |
| TS003 | 5 | Test Case 1 | Caregiver logged in | 1. Navigate to view add meals page 2. Add a meal |  | User can navigate to target page easily and perform the task |

## Bibliography

Kholghi, B. (2022). The MOST analysis - easy explained with examples. *Retrieved from*<https://www.investopedia.com/terms/s/swot.asp> last access: January 20, 2023

Francisco, E. B. (2022). Risk analysis: a comprehensive guide. *Retrieved from* [*https://safetyculture.com/topics/risk-analysis/*](https://safetyculture.com/topics/risk-analysis/)Accessed January 23, 2023.

CTC (2022). Section 14. SWOT analysis: strenghts, weaknesses, opportunities, and threats. *Retrieved from* [*https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main*](https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main)Accessed January 20, 2023.

Cook, A. (2022). What is a MOST analysis? How to perform one. *Retrieved from* [*https://www.creative-asset.co.uk/insights/what-is-a-most-analysis*](https://www.creative-asset.co.uk/insights/what-is-a-most-analysis)Accessed January 20, 2023.

CIO. (2023). VMOST analysis. *Retrieved from* [*https://cio-wiki.org/wiki/VMOST\_Analysis*](https://cio-wiki.org/wiki/VMOST_Analysis)Accessed January 20, 2023.

CIPD. (2021). PESTLE analysis: discover what PESTLE means. *Retrieved from* [*https://www.cipd.co.uk/knowledge/strategy/organisational-development/pestle-analysis-factsheet#gref*](https://www.cipd.co.uk/knowledge/strategy/organisational-development/pestle-analysis-factsheet#gref) Accessed January 21, 2023.

Martins, J. (2022). How to use a feasibility study in project management. *Retrieved from* [*https://asana.com/resources/feasibility-study*](https://asana.com/resources/feasibility-study)Accessed January 23, 2023.

JavatPoint. (2022). Advantages and disadvantages of SWOT analysis. *Retrieved from* [*https://www.javatpoint.com/advantages-and-disadvantages-of-swot-analysis*](https://www.javatpoint.com/advantages-and-disadvantages-of-swot-analysis) Accessed January 20, 2023.

Hikmawan, D. (2019). Feasibility study. *Retrieved from* [*https://www.slideshare.net/DhafaHikmawan/feasibility-study-138349826*](https://www.slideshare.net/DhafaHikmawan/feasibility-study-138349826) Accessed January 23, 2023.