**Fooder**

**Project Charter**

**Prepared by:**  **FOD Project Management Solution, Inc.**

**Issue date:** **27 September 2019**

**Version:** **1.0**

**Revision Control**

*This section serves to control the development and distribution of revisions to the project charter. It should be used together with a change management process and a document management system. It is recommended that changes to the charter be documented only by adding appendices to the original project charter. This will keep an accurate history of the original document that was first approved.*

| **Revision Number** | **Date** | **Description of Changes** | **Author/Editor** | **Communication of Change** |
| --- | --- | --- | --- | --- |
| 1.0 | 27-sep-19 | Initial draft | FOD |  |
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# Project Authorization

This project charter represents a formal agreement and commitment between the Fooder mobile apps Project Sponsor, Steering Committee and Project Team on the delivery of system functionalities for the project.

As such, this document will be treated seriously and every effort will be made to meet the commitment it represents. If there is a change in the release scope, the charter will be updated and submitted for re-approval (signatures) by the responsible parties.

## Client Signatories

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | |  |  |  | | |  |  |  | | --- | --- | --- | |  |  |  | |  |
| Shady Mohammed  Project Sponsor |  | Date |

## Steering Committee and Project Team Signatories

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  |  |  | | --- | --- | --- | |  |  |  | | |  |  |  | | --- | --- | --- | |  |  |  | |  |
| Matheus Schaly  Project Manager 1 |  | Date |
| Wen-Jung Chen  Project Manager 2 |  | Date |
|  |  |  |
| Jack Wu  Project Manager 3 |  | Date |
|  |  |  |
| Simon Fu  Project Manager 4 |  | Date |

# Purpose of This Document

This project charter is to formally recognize the existence of the project, and provides the project managers with authority to apply organizational resources to project activities. In addition to the contract purpose, the project charter includes most elements of a preliminary project scope statement, which describes what is included in the project. It also helps to control changes to the scope and timeline of the project throughout its duration. The intent is to cover, in a single document, the following:

* Project Overview
  + Including Scope, Goals, Objectives, Milestones and Timelines, Deliverables, Cost, Organizational Structure, Roles & Responsibilities, Risks, Assumptions, and Constraints

Once approved, this document will define the contract between the project team and the sponsor(s).

# Project Overview

## Project Summary / Business Justification

The purpose of this project is to provide personal health monitoring services with a complete energy intake system which will be available to healthcare providers or individuals at competitive prices. The product will be available to all users with a mobile device, and is convenient to use for both beginners and experienced users who want to stay fit.

The product offers an automated and enhanced method of tracking nutritional information in a meal. It allows for a more convenient and affordable method for logging food intake. This product can be compared to current existing applications that require manual measurements and inputs of food. Manual food logging applications require users to measure each individual ingredient, which results in a very time-consuming process. This decreases the ease of use for food logging, and would be particularly more difficult for beginners.

We have defined the deliverables/milestones, and the target deadlines for each. The software development process of our application aims to follow closely with the deadlines defined, while staying on budget. Our end product must satisfy all of the requirements written during our design phase, and pass 100% of our test suites. Criteria for success includes providing scheduled deliverables and meeting target completion/progress dates per the project charter, in addition to the implementation of an accurate algorithm in both food identification and calorie calculation.

# Goals and Objectives

## Goals / Objectives

Build an app that can calculate people’s calorie intake by processing the pictures of their food on a daily:

* An image processing algorithm that can successfully identify all visible ingredients in a photo with a 94.12% success rate.
* An algorithm is written using machine learning technology
* AWS cloud services to store large amounts of data of all users
* Application is available and compatible with the latest versions of Android and iOS
* Have a functional product available for user testing.

# Scope and Assumptions

## Project Scope

In this project we will be developing a cross platform mobile application, allowing the user to take pictures of their food and automatically calculates the caloric and nutritional information of that picture with high accuracy. In the picture no external references are required. The computational time should be reasonable. It should be available 24/7. The platform should utilize Amazon webservices, we store the pictures for research only. The final project must be delivered on budged and on time. The project is only in a mobile version, not a website. The ownership of the end product belongs to Digital Health Inc., the people who is evolved in the project own any part of the project. We don’t ask for personal information. All personal during the development of the project should not disclose information, except within the company.

## Assumptions

This project is based on the following assumptions

* All project team members will be available during the project time frame.
* Funding is available once project is started.
* Project has executive-level support and backing.
* Project team will successfully manage to produce deliverables within scope, budget, and project schedule.
* Initial role of team members are not fixated throughout the project time frame.

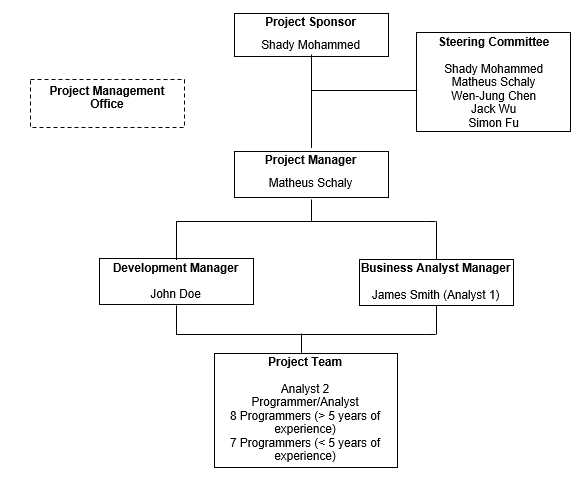
# Deliverables and Milestones

## Deliverables / Milestones

|  |  |  |  |
| --- | --- | --- | --- |
| **Deliverable / Milestones Name** | **Description** | **Target Date** | **Responsibility** |
| Project Charter | Discusses the overall outlook on the project | 27-sep-2019 | Project Manager |
| Technical Requirements Document | Outlines the features and intended behavior of a software application | 21-oct-2019 | Development Manager |
| Project Plan | Guides the control and execution of a project | 25-nov-2019 | Project Manager |
| Communication Plan | Sets clear guidelines for how information will be shared with client, team and other stakeholders. | 25-dec-2019 | Project Manager |
| System Design | Defines the architecture, modules, interfaces, and data for a system to satisfy specified requirements. | 4-feb-2020 | Development Manager |
| Test Plan | Describes software testing scope and activities. | 4-apr-2020 | Development Manager |
| Customer Acceptance | Executes formal testing with the customer | 30-jan-2022 | Project Manager |
| Product Deployment & Project Completion | Ends the project development life cycle | 1-apr-2022 | Project Manager |

# Project Organization

## Organizational Structure



## Roles and Responsibilities

|  |  |
| --- | --- |
| **Role** | **Responsibilities** |
| **Project Sponsor** | - Has ultimate authority over and is responsible for a project  - Approves changes to the scope and provides whatever additional funds those changes require  - Approves deliverables. |
| **Project Manager** | - Has authority over and is responsible for a project  - Is responsible for the project charter and project plans  - Manages the project within the terms of the project charter  - Is responsible for the project management and control structure  - Is responsible for coordinating the efforts of the project team  - Plans, organizes and controls the development of all project deliverables, etc. |
| **Steering Committee** | - Provides high-level guidance and direction on key issues such as company policy and objectives, budgetary control, marketing strategy, resource allocation, and decisions involving large expenditures  - Assists in developing the project charter and project plans  - Helps resolve issues and change request |
| **Development Manager** | - Controls the technical aspects of the project  - Controls the day-to-day aspects of the project  - Develops and maintains project charter and project plans  - Executes formal reviews and management reviews.  - Tracks and disposes of issues  - Helps resolve issues and change request  - Tracks action items and budgets  - Is responsible for the technical and functional quality of the solution |
| **Business Analyst Manager** | - Controls the business aspects of the project  - Participates in day-to-day business program activities  - Assists in developing the project charter and project plans  - Approves business program deliverables, resolves conflicts over the policy or objectives  - Disposes of issues and change requests  - Assists in tracking action items and budgets |
| **Users** | - Uses the final products  - Reports bugs and problems  - Provides suggestions  - Requests new features |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Role & Responsibilities / Deliverable** | **Project**  **Manager** | **Business** **Analyst**  **Manager** | **Development Manager** | **Business Users** | **Project** **Sponsor** | **Steering Committee** |
| Create Project Charter | R,A | I | I | C | C | C |
| Fund Project | I |  |  |  | R,A | C |
| Document Requirements | C,A | R | C | C | C | C |
| Project Plan | R,A | C | C | C | I | C |
| Communication Plan | R,A | C | C | I | C | C |
| System Design | C | C | R |  | C | C |
| Test Plan | C | C | R |  | I | C |
| Customer Acceptance | R | C | C |  | C | C |
| Product Deployment/  Project Completion | R | C | C | I | C | C |

**R - R**esponsible (the doer)

**A – A**ccountable (the buck stops here)

**C – C**onsult (In the loop – two way communication)

**I – I**nform (Keep in the picture – one way communication)

# Resource Requirements and Budget

# Resource Requirements

The project development is going to take 621 staff-months and 29 months. The table below lists the 23 people that are needed to develop the project. The total cost with personnel is estimated to be around C$ 3,978,249,00.

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Proposed Person** | **Dates Required**  **(From – To)** | **Anticipated Hours** |
| Developer manager | John, Doe | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Analyst 1 | James, Smith | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Analyst 2 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Programmer/Analyst | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 1 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 2 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 3 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 4 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 5 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 6 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 7 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Experienced Prog. 8 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Unexperienced Prog. 1 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Unexperienced Prog. 2 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Unexperienced Prog. 3 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Unexperienced Prog. 4 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Unexperienced Prog. 5 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Unexperienced Prog. 6 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Unexperienced Prog. 7 | To Be Determined | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Project Manager 1 | Matheus, Schaly | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Project Manager 2 | Wen-Jung, Chen | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Project Manager 3 | Jack, Wu | 01-nov-2019 to 01-apr-2022 | 116,544 |
| Project Manager 4 | Simon, Fu | 01-nov-2019 to 01-apr-2022 | 116,544 |

## Cost to Complete the Project (One-time Cost)

The following table provides an estimate of the cost to complete the project. Labour is the cost personal cost, which includes the more experienced developers that will assist the less experienced developers. Hardware is the notebooks that may need to be bought in case the company doesn’t have it yet. Software includes anti-virus and designing tools. Contracted services are Amazon services to train the machine learning algorithms.

|  |  |
| --- | --- |
| **Resource Type Expenditure** | **Total Project Costs** |
| Labour | C$ 3,978,249.00 |
| Hardware | C$ 14,250.00 |
| Software | C$ 2,548.85 |
| Contracted Services | C$ 2,824.60 |
| Contingency | C$ 399,787.25 |
| **Cost to Complete** | **C$ 4,397,659.96** |

# Risk Management

## Initial Risk Assessment

|  |  |  |
| --- | --- | --- |
| **Risk** | **Impact Level** | **Mitigation** |
| Developers may have technical limitations with our platform and technologies. | 2 | Focus on training developers with new technologies and frameworks. |
| External training data set may not be sufficient enough to achieve our target accuracy. | 3 | Acquire extra labeled image training data set from third-party provider |
| Uncontrollable downtime due to service outage of our network provider. | 5 | Introduce network redundancy into our backend architecture. |
| The camera quality of users’ phones may have a significant impact on result accuracy. | 3 | Include various quality of pictures in the training data set. |

# Constraints

## Constraints

The app must achieve high accuracy in both food identification and calorie calculation. It has to be easy to use and pleasant. Moreover, the app must detect each food ingredient that is visually detectable. It must also use auto-calibration techniques, it should not use external objects in the image. Furthermore, the app must be highly scalable, it must use Amazon Cloud. It must also use Artificial Intelligence (AI) for food detection. The AI training should be incremental and no re-train itself when every new picture is uploaded. The app should run on both Android and iOS.