**CS691 - Computer Science, Spring 2019**

**Project Initiation Document**

**MyPersonalChef**

Project: MyPersonalChef

Project Manager: Sukhada Sheth

Start Date: 01/21/2019

Completion Date: 05/18/2019

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Document Details

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Modifications | Author | Date |
| 1.0 | Initial Version | All Team Members | 02/19/2019 |
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Approvals

This document requires the following approvals:

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| Prof. Yuri | Approver |  | 02/19/2019 | 1.0 |
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Distribution

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| Chuangyu Cheng | Tester | 02/19/2019 | 1.0 |
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# Document Purpose

This document is the Project Initiation Document (PID) for the MyPersonalChef Web & Mobile Application Project. The purpose of this document is to define the project and form the basis for its management and the assessment of overall success. It will communicate the scope, objectives, tasks, roles and responsibilities, costs and deliverables relating to the MyPersonalChef Web & Mobile Application Project.

Specifically, this document will cover the following areas:

* An outline of the approach to be adopted for the implementation of the MyPersonalChef Web & Mobile Application
* Details of the roles and responsibilities, functions and activities
* Details of the processes and products to be covered and the associated benefits and outcomes together with the impact they will have on the business
* Quality records, risks, project controls and exceptions

This document will also serve as a means of communicating key aspects of the project to Stakeholders of the MyPersonalChef Web & Mobile Application. Once approved, the Project Initiation Document will be the baseline against which the success of this project will be measured.

# Background to the Proposed Work

There are numerous applications out there today to help users order restaurant ready food. For example, GrubHub and Doordash are for food delivery, these applications / sites deliver the restaurant ready food to the customers. What if there was an application that helped customers prepare their favorite dishes by getting the required raw materials delivered to their doorstep or if they don't want to prepare it on their own they could just order it(the way they like), but from fresh homely prepared at home by other users/small business and not from the restaurants. This is what MyPersonalChef aims to do. There are some issues with the current popular applications used:

* No way to customize the recipes, no way to view the recipes of menus on application before delivery.
* No means to order the raw ingredients in case if user wants to add his/her own personal touch to their favorite recipes.
* No means to convey feedback about the recipes added by other users to them. No means to schedule a weekly or monthly subscription.

This project will address the above issues, providing a new platform to the users to save time, cook great meals and upgrade their lifestyle.

# Vision

The goal of this project is to provide a specific application for busy people or any individual looking to save some time, get a meal plan according to the needs of the user, and giving them power to cook food in their way or get it made like they want in a very personalized manner.

# Project Objectives

* Create a user-friendly web and mobile application.
* Create a registration module to help users register to the application and use the services.
* Create a module to upload the recipes with the necessary ingredients (attached with the recipe creators account).
* Provide means to customize the recipe(s) and order the ingredients to prepare the recipe on own (for recipe consumers).
* Provide means to modify the recipe(s) and place an order for ready homemade food.
* Provide means to cancel the order.
* Decide and add a delivery system for the orders (raw ingredients vs ready food).
* Create a payment gateway/module.
* Create a personalized feedback module (recipe consumers to recipe creators).
* Create a module to enable monthly, weekly subscription.

# Project Scope

This project has both functionality and aesthetic requirements. It is necessary to address some pressing needs:

* Technical:
  + To apply the best UX/UI practices.
  + To decide what DB to use.
  + To decide what SDLC methodology to implement.
  + To discuss roles and responsibilities in a team.
  + To install the required software.
  + To ensure that the team members have necessary skills.
  + To set up development, staging and production environments.
* Functional:
  + User will be able to check the menu of the food with the recipe.
  + After the sign-up user also has an option to subscribe the service.
  + User can select to order the cooked food or raw food materials along with the recipe.
  + Users will be able to cancel the order.
  + Users will be able to pay for the orders.

In order to achieve the above scope, Phase 1 of the project is limited to:

* + Functionality and technical requirements of the web portal and mobile application. In subsequent phases, refining the functionality and cleaning up aesthetics will be part of the scope.

# Business Case

MyPersonalChef project promises to create an easy to access Web & Mobile Application to all the users who would like to prepare food at home without investing much time in grocery shopping and preparation. MyPersonalChef will also give an option of ordering home cooked food as per their taste.

|  |  |
| --- | --- |
| **Application Name** | MyPersonalChef |
| **Type of business model** | Subscription and Advertisement |
| **Target audience of users** | College Students, Office People, Busy People or Lazy People who don’t like to cook or don’t want to spend lot of time for pre-preparation. |
| **Value proposition** | Enable users to cook delicious food in no time using pre-portioned meal kit.  Enable users to order home made food from other users or small businesses. |
| **How the system is used** | Portal will have two modules   1. Place Meal Kit Order.   This feature is for those who love to cook but have no time to go for grocery shopping. So, this feature will allow users to order the easy-to-follow recipe cards, pre-portioned ingredients to freshly prepare food at user’s kitchen only.  Users can design their meal for a week and place order in advance for entire week.   1. Place Food Order   This portal will act as a platform for all the small businesses or home-based food delivery services to showcase their menus on portal. So, users can browse through all the available options and their respective menus to order freshly prepared food as per their requirement.  User Roles -   1. Chefs who wish to provide cooking service 2. Admin to provide meal kit 3. Users to order precooked food or meal kits. |
| **Revenue generation** | Per Order, Subscription, Advertisement |
| **Partners/Suppliers**  **(Stakeholders)** | * Supermarkets * Credit card Vendors * Food Network |
| **Expected Benefits** | This portal will help people cook delicious food effortlessly in no time using meal kit or they can directly order pre-cooked food.  This would also provide a platform for people who want to sell their homemade food. |
| **Known Prototypes** | Home chef -  [https://www.homechef.com/](https://www.homechef.com/how-it-works)  Hello Fresh  <https://www.hellofresh.com/> |

# Assumptions

Below is the list of assumptions which has been assumed to be true in the future. Assumptions have been made as per our knowledge, experience and the information available on hand. Below are anticipated events or circumstances that are expected to occur during project’s life cycle.

|  |  |  |  |
| --- | --- | --- | --- |
| Assumption | Validated by | Status | Comments |
| Skills | All Members | Complete | * Team members have been assigned roles as per their skills. * All team members should have some prior experience of development. * Lead developer should be expert in development task and should be able to help resolve other team members development issues. |
| Commitment | All Members | In Process | * All team members will remain committed to the project till the end and work dedicatedly towards the successful implementation of the project. |
| Infrastructure | All Members | In Process | * All team members need to have their own laptops with minimum configurations required to build an application. * Also, team members will have to update their machines with latest softwares and libraries as per the project demands. |
| Participation Time | All Members | In Process | * All team members have agreed to dedicate 5 hours per week during documentation phase and 15 hours per week during implementation and testing phase. |
| Meeting (Twice every week) | Manager | In Process | * Team will meet face-to-face during the beginning of every week and virtually towards the end of the week to validate the work done by members during that week. * All team members will join the meetings on time and contribute in all the discussions. |
| Project Resources  (Software, Server for hosting the web application, APIs, Services ) | Manager and Lead Developer | In Process | * Manager and lead developer will decide on which all softwares, services, APIs and servers would be used. * It would be manager’s responsibility to make all the resources accessible for all the team members. |
| Knowledge Sharing | Business Analyst and Lead Developer | In Process | * Business Analyst and Lead developer will provide specific Required Skills to build this project successfully. * Members who are already expert in the required area will share their knowledge through knowledge sharing sessions. |
| Project Design | Manager, Product Owner, Business Analyst | In Process | * Product Owner, Manager, Business Analyst will conduct the market research and finalize the project modules. |
| Work Assignment | Manager | In Process | * Project Manager will assign the modules to team members considering each team member's skills and strengths |
| Risk Identification and mitigation | Manager, Business Analyst | In Process | * All the risks need to be identified well in advance and plan for mitigating those risk should be ready. * Team should be able to handle unidentified risk that may come up during the project lifecycle |

# Constraints

Below is the list of limitations imposed on the project and we will be working within the boundaries restricted by these constraints.

* **Deadline Constraint** –

First phase of the project needs to be completed in the Spring semester only.

Project architecture needs to be implemented before the final project presentation.

* **Project Development Lifecycle Constraint –**

First phase of the project will follow the waterfall model and hence it would be difficult to

accommodate ad-hoc changes in the requirements during the later phases of the project life

cycle.

* **Requirements Constraint –**

All the requirements need to be well documented and baselined in advance.

* **Location Constraint –**

As everybody lives in different areas of New York and New Jersey, it would be difficult to

meet in person always. Hence sometimes Webex or Skype meetings would be conducted.

* **Weather Constraints –**

As it’s going to be winter till march, meetings will be conducted through Webex or Skype in

case of heavy snowfall.

* **Weekly Time Constraint –**

Team members cannot dedicate all 7 days of a week to only ‘MyPersonalChef’ project as

everybody has on-campus jobs, internship interview preparation, other course projects and

assignments to be completed.

* **Developer Constraint –**

Team has only one lead developer who would be responsible for project implementation

and would also be responsible for helping other team members’ development issues.

* **Academic project –**

As it’s an academic project, User Acceptance testing would not be done by real end users but by project team members only.

* **Monetary Constraint** –

As there will be no sponsors for this project, all the open source services, softwares, frameworks will be used for implementation of this project.

# Risk Management Strategy

Below section highlights effective and early risk identification and management process to secure the achievement of project objectives, leading to reduced rework costs.

Risk classification –

* Project risks – Planning, Schedule, Estimation, Controlling
* Product risks – Requirement, Design
* Business risks – Market, Suppliers, Sponsors, Funds

Risk management includes four stages:

#### Risk Identification-

#### Risks are to be identified and dealt with as early as possible in the project. Risk identification is done throughout the project life cycle, with special emphasis during the key milestones.

Risk identification is one of the key topics in the regular project status and reporting meetings. Some risks may be readily apparent to the project team—known risks; others will take more rigor to uncover but are still predictable.

1. Risk Analysis –

Risk analysis involves examining how project outcomes and objectives might change due to the impact of the risk event. Once the risks are identified, they are analyzed to identify the qualitative and quantitative impact of the risk on the project so that appropriate steps can be taken to mitigate them.

1. Risk Planning –

There may not be quick solutions to reduce or eliminate all the risks facing a project. Some risks may need to be managed and reduced strategically over longer periods. Therefore, action plans should be worked out to reduce these risks. These action plans should include:

* Risk description with risk assessment
* Description of the action to reduce the risk
* Owner of the risk action
* Committed completion date of the risk action

1. Risk Monitoring-

Risk monitoring and control includes:

1. Identifying new risks and planning for them
2. Keeping track of existing risks to check if:
   1. Reassessment of risks is necessary
   2. Any of risk conditions have been triggered
   3. Monitor any risks that could become more critical over time
   4. Tackle the remaining risks that require a longer-term, planned, and managed approach with risk action plans
3. Risk reclassification
   1. For the risks that cannot be closed, the criticality has to go down over a period of time due to implementing the action plan. If this is not the case then the action plan might not be effective and should be re-examined.
4. Risk reporting
   1. The risk register is continuously updated, from risk identification through risk response planning and status update during risk monitoring and control. This project risk register is the primary risk reporting tool and is available in the central project server, which is accessible to all stakeholders

Below is a list of the possible risks that may come up over the course of the project MyPersonalChef.

|  |  |  |  |
| --- | --- | --- | --- |
| Risk | Probability | Impact | Mitigation Method |
| Communication - Project team misunderstands the requirements | Low | High | Weekly meetings will be conducted so that everybody has same understanding of the project. Also, requirements would be documented clearly well early in the project phase. |
| Resource Shortfall - Project has only one lead developer | Medium | Medium | Project Implementation language and framework would be finalized as soon as the requirements are finalized. This would help other team members get enough time to learn the required skills thus reducing the dependency on single lead developer. |
| Leaves - Project team members remain unavailable for long period due to personal emergency | Low | Medium | Other members of the team will be responsible to pick up extra work so deadlines will be met in a timely matter. |
| Performance Issue - Some team members may not perform on time | Low | Medium | Project Manager will keep track of project status on regular basis to avoid any last-minute surprises |
| Design Infeasible - Too much of imagination during project design phase without checking feasibility | Medium | High | Business Analyst and Product Owner would be conducting thorough market study before requirements are baselined |
| Technology components are not fit for the purpose | Medium | High | Lead Developer, Business Analyst will study the existing softwares and finalize the technical resources to be used after doing thorough research with the help of technical forums. |
| Casual Behaviour- Team members may skip the team meetings, brain-storming sessions | Medium | Medium | All team members have agreed that, everybody will be available for all the meeting. Team manager will schedule the meeting only after checking availability of all the resources. |
| Single Tester | Low | High | It would be responsibility of all team members to thoroughly test the functionality they implement. |
| Loss of data | Low | High | All the documents and code would be backed up on regular basis |
| Low Quality Deliverables | Medium | Medium | All team members have agreed to work outside working hours if required to meet the quality standards |

# Deliverables

Below section includes the main deliverables and outcomes the project is expected to achieve.

|  |  |  |
| --- | --- | --- |
| No | Artifact Name | Responsible Party |
| 2/12/19 | Project proposal | Project Manger |
| 2/19/19 | PID Document | Project Manger |
| 2/26/19 | Project Plan, RACI | DBA |
| 3/5/19 | Requirement Types | Product owner |
| 3/5/19 | Analysis Diagram | Lead Developer |
| 3/12/19 | User Requirement | Lead BA |
| 3/12/19 | RCT | Lead BA |
| 3/26/19 | Functional Requirement | Lead Developer |
| 4/9/19 | DB model, ER Diagrams | DBA |
| 4/16/19 | Architecture Diagrams | Lead QA |
| 4/23/19 | UML Design Diagrams | Product Owner |
| 4/30/19 | Test Documentation | Lead QA |
| 5/14/19 | Final Presentation | Project Team |

# Stakeholders

This section will include a list of all known stakeholders and their interests in the project. It may be presented in the following format:

|  |  |
| --- | --- |
| Stakeholder | Interest |
| Project Manager | The Project Manager develops the Project Plan with the team  and manages the team’s performance of project tasks and to  secure acceptance and approval of deliverables from the  Project Sponsor and Stakeholders. |
| Project Team | Team will be for executing tasks and producing deliverables as outlined in the Project Plan and directed by the Project Manager, at whatever level of effort or participation has been defined for them. |
| Distributors | Distributors comprise the business units that identified the  need for the product or service the project will develop. |
| End Users | The persons or organization using the product of the project. |
| Credit Card Merchant | Organization to except and refund payment. |

# Project Team

The project team includes the following roles:

* Project Manager – Sukhada Sheth
* Product Owner – Ansley Rodrigues
* Lead Developer – Murtaaza Roondiwala
* Business Analyst – Vijay Shah
* QA Lead – Ashish Dwivedi
* Tester – Chuangyu Cheng
* DBA – Abhijit Tambe

Roles and Responsibilities of the team roles are defined in the RACI Table below:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Project Roles** | | | | | |  |
| **Process Area** | **Project Tasks** | Project Manager | Product Owner | Dev Lead | Business Analyst | Test Manager | DBA | Tester |
| Project Management | Develop a project plan | A,R | C | C | C | C | C | C |
| Provide cost estimate | A,R | C | C | C | C | C | C |
| Hire resources | A,R | C | C | C | C | C | C |
| Establish a project portal on SharePoint | A,R | R | I | I | I | I | I |
| Maintain a project risk and issue log | A,R | R | C | C | C | C | C |
| Provide project status reports | A,R | R | I | I | I | I | I |
| Requirements | Perform requirements analysts | A | R | C | R | I | I | I |
| Gather business requirements | R | I | C | R | I | I | I |
| Produce functional requirements | A | I | C | R | C | I | I |
| Design | Produce high-level design specs | A | I | R | C | I | R | I |
| Produce data model | A | I | C | C | I | R | I |
| Produce detailed design specs | A | I | R | C | I | R | I |
| Coding | Establish a code repository | A | I | R | I | I | I | I |
| Develop component code | A | I | R | I | I | I | I |
| Testing | Develop a test plan | A | I | C | C | R | C | R |
| Establish a test repository | A | I | C | I | R | I | R |
| Develop test specifications | A | I | C | I | R | I | R |
| Execute testing, report defects | A | I | I | I | R | I | R |
| Conduct defect review calls | A | I | C | R | R | C | R |
| Produce, deliver defect metrics | A | I | C | R | R | I | R |
| Support test environments | A | I | R | C | C | R | C |
| Deployment | Produce a deployment plan | A | I | R | I | I | R | I |
| Produce deployment procedures | A | I | R | I | I | R | C |
| Deploy software into production | A | I | R | C | C | R | C |

# Project Plan

To be decided

# Project Controls

Project manager will be organizing one weekly meeting. All the team members are allotted their work that must be completed before each class on Tuesday. In case any member cannot make for the meeting, manger should reschedule a meeting or held it online through Webex or Skype.

The Project Manager will regularly report any deliverables to Professor Yuri Chernak and Stakeholders. Also, all documents will be shared on google drive or slack to teammates. All project code will update to project repository on GitHub.

Communication will be done via Email, slack or phone call within the project team. Slack will be the primary means of communicating within teammates and professor. Project deliverables will be shared with professor via email.

Weekly meeting minutes will be maintained by the project manager which will also include the progress of the project phases. Manager will also keep a track of the deadlines and ensure that everyone plays their role accurately.

Before reporting any documents to professor, the project manager will check all the documents and ask if there is no problem about the project before the deadline day in case of some emergency.

Four steps to effective change control:

* Define the change request
* Submit and review the change request
* Define options and create response document
* Final decision and approval.

# Communication Plan

The communication plan for the Project is as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| Stakeholder | Frequency | Type | Purpose |
| Professor | At key stages - meetings and deliverable drafts | Email | To approve Project implementation and direction. Advise if there are any potential issues. |
| Project Manager | Daily or weekly | Email, phone, personal meetings, Slack | To divide the project work among team members, collaborate the work before submission. |
| Project Team | Daily or weekly | Email, personal meetings, Slack. | Maintain progress and ensure that the team is meeting weekly requirements. |
| End Users | Potentially during the testing phase and after release. | Email, online testing sessions, slack. | To obtain feedback. |