

FALL 2021

CONSUMER SHOPPING ENHANCEMENT APP

Project Scope

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Farmer's Way

FEEL THE FRESH

FARMER'S WAY

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Farmer's Way

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Farmer's Way

Project Start: September 9, 2021

Expected End Date: December 15, 2021

Project Manager: Will Smith

Project Sponsor: Dr. Robert Judge, CIO, Farmer's Way

Revision History:

Version	Date	Revision Made
v.1	9/5/2021	

Prepared By:

Document Owners	Organization Role
Tristan Roman	Business Analyst
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Project Objectives

The aim of this project is to generate an app for Farmer's Way that will provide customers the ability to create a more personalized shopping experience and increase accessibility to it's stores and products. By

providing an innovative app that has new, modern features compared to competitors, shoppers will be provided with a unique and convenient grocery shopping experience. What makes this app so unique and competitive against competition are its array of features. These features include:

- ❖ Notifications of new arriving products
- ❖ See real-time products in stock
- ❖ Store map to help customers locate products and ingredients
- ❖ Shopping list tracker
- ❖ Suggested shopping lists generated based off customers personal preferences and dietary restriction needs
- ❖ Recipe suggestions based off clients shopping list
- ❖ Cooking tutorials
- ❖ Coupons and promotion
- ❖ The ability to put in a grocery order for pick up
- ❖ Find stores near customer

These features will allow for customers to create their own customized shopping experience and cut the time spent looking for ingredients and products throughout the store, searching for dietary substitutions, thinking of recipes, and even cutting out the time spent shopping with the pickup option.

Concise Scope Description

This project will require utilizing the in-house IT department of Farmer's Way to plan, analyze, design, implement, test, and deploy a consumer shopping enhancement web application. The web app will provide a suite of features for consumers, of which are explicitly stated in the project objectives and user requirements sections. A further refinement of the scope is in the boundaries section.

Project Scope Boundaries

This section describes what is and is not included in the "Consumer Shopping Enhancement App" project's scope.

Included in Scope	Not Included in Scope
<ul style="list-style-type: none"> ❖ Production of project-management documents ❖ Providing only the explicitly stated web app features in project objectives, user requirements, and product requirements ❖ Selecting appropriate programming languages for front and back end. ❖ Analyzing and planning web-app's features and functions ❖ Designing the web app ❖ Developing and iterating software ❖ Reviewing and deploying of beta and production versions ❖ Installing geositional tags in stores ❖ Procuring web-app media, server hosting, and technical writing ❖ Initial training for set of IT department employees to act as admins ❖ Initial training for in-store management on how to sync products to web app ❖ Providing briefing to IT department on final deliverable handoff 	<ul style="list-style-type: none"> ❖ Ongoing web-app maintenance ❖ Any features not explicitly listed in project objectives, user requirements, and product requirements ❖ Ongoing analysis of web-app's performance against organizational strategies ❖ Ongoing IT employee training after initial sessions ❖ Ongoing in-store management training after initial sessions

Project Deliverables

An overview of the project's deliverables is listed below. Here we provide the deliverables related to the project management's activities as well as the deliverables of the project team's work.

Project Management Deliverables:

- ❖ Project Charter
- ❖ Project Scope
- ❖ Project Schedule Team
- ❖ Project Cost
- ❖ Project Quality
- ❖ Human Resource Plan
- ❖ Project Communication
- ❖ Procurement Plan
- ❖ Risk and Analysis Plan

Project Deliverables:

- ❖ Specific application features:
 - Notifications of new arriving products
 - See real-time products in stock
 - Store map to help customers locate products and ingredients
 - Shopping list tracker
 - Suggested shopping lists generated based off customers personal preferences and dietary restriction needs
 - Recipe suggestions based off clients shopping list
 - Cooking tutorials
 - Coupons and promotion
 - The ability to put in a grocery order for pick up
 - Find stores near customer
- ❖ Geopositional tags setup in correct shelving locations
- ❖ Employee training on the new application
- ❖ Content and media for respective application features
- ❖ Web app documentation and feature-specific technical writing
- ❖ Active server hosting plan subscription

User and Product Requirements

To satisfy stakeholders' needs and expectations, an explicit detailing of the user and product requirements of the consumer enhancement web application are provided below.

User Requirements

User requirements will define what the end-user wants to accomplish through use of the app. An end-user is not just a consumer but also an administrative user who regularly updates the web application. The two categories of user requirements are listed below:

Consumer User Requirements	
User Requirement No.	User Requirement Description
UR1	Users want to have notifications of new products.
UR2	Users want to view products and their stock in real-time
UR3	Users want to find the exact location of any product in store
UR4	Users wants to store a shopping list in the web app
UR5	Users want to have the web app automatically create a shopping list for them based on their personal preferences and dietary needs
UR6	Users want recipe suggestions
UR7	Users want to learn how to cook what they buy
UR8	Users want to have coupons and promotions in the app that allow for scanning at point-of-sale areas
UR9	Users want to order through the web app and pick up the basket of goods in-store
UR10	Users want to find a store
UR11	Existing consumer users want to access stored data

Administrative User Requirements	
User Requirement No.	User Requirement Description
UR12	Users can update notifications area
UR13	Users can add new products for consumers to see
UR14	Users can add, change, or delete in-store locations for items
UR15	Users can add, change, or delete recipe suggestions
UR16	Users can add, change, or delete cooking tutorial media
UR17	Users can add, change, or delete coupons and promotions
UR18	Users can view outstanding pick-up orders
UR19	Existing administrators want to login to their account

Product Requirements

The product requirements section is broken into functional and non-functional requirements. To better understand the functional requirements, they will be categorized by feature. For the functional requirements that don't pertain to one feature, they are grouped under the "Overarching" group.

Overarching Functional Requirements	
Functional Requirement No.	Functional Requirement Description
FR1	Application must prompt all users to create an account
FR2	Both user types receive a verification of account creation email that needs to be viewed to use app
FR3	Application login area differentiates between consumers and administrators
FR4	Consumer users must enter email and password to login
FR5	Administrative users must enter email, password, and employee ID to login

FR6	Both users can click “forgot password” to create a new password using a verified email address
FR7	When both user types log in, a home page should have all application features in a grid format
FR8	Consumer users are displayed consumer application features
FR9	Admin. users are displayed consumer application features with admin. level ability to edit each consumer feature. Reference UR12-UR19.
FR10	Both user types can log out when needed

Feature Specific Functional Requirements		
Feature and Associated UR	Functional Req. No.	Functional Requirement Description
Notification of New Products UR1	FR11	Output notifications in grid-like structure
	FR12	Notifications homepage will have mix of all product types
	FR13	Allow consumer user to filter notifications by product type
View products and their stock in real-time UR2	FR14	Allow consumer user to search for any product simply by typing its keyword into a search bar
	FR15	Consumer user will be presented list of products in grid-like structure
	FR16	Consumer user can click on product and be shown which stores have it and the stock level at each store
	FR17	Provide link to in-store item finder and store finder features
In-store Item Finder UR3	FR18	Output in words exact location of item.
	FR19	Output item location using augmented reality, where the consumer user can aim the phone towards the item. Item shown is really the geopositional tag
	FR20	Geopositional tags need to be setup in correct shelving positions
	FR21	Must allow for stockers to simply scan tag on shelf when stocking to sync to product on web app

Shopping List UR4	FR22	Allow consumer users to simply type needed products in notepad like environment
	FR23	Allow consumer users to format list with bullets and strikethrough
	FR24	Link to product finder so consumer user can search for products and add them to list
	FR25	Link to in-store item finder
Auto-Generated Shopping list UR5	FR26	In shopping list component, consumer user must be able to enter in food preferences or dietary needs and have shopping list auto-generate
Recipe Suggestions UR6	FR27	Have shopping list contents used as criteria for providing recipe suggestions to consumer user
	FR28	Have a portal of recipes from professional chefs
	FR29	Once consumer user clicks on a recipe, provide ingredients
	FR30	Link to product and item finders
Cooking Tutorial UR7	FR31	On recipe page, include relevant cooking tutorial media
	FR32	Tutorial will feature simple step-by-step videos
Coupon and Promotions UR8	FR33	Have central area where coupons and promotions are featured
	FR34	Allow consumer user to sort through coupons and promotions based on product type and amount of discount
	FR35	Consumer users can save coupon or promotion
	FR36	At point of sale, consumer users can bring up the coupon on a device of choice and allow a cashier to scan the associated barcode. An alphanumeric code will also allow the cashier to manually find the coupon or promotion.
In-store Pick-up UR9	FR37	Consumer users can craft bracket of goods for pick up in store using product finder
	FR38	App must have a virtual cart to hold wanted items
	FR39	Must allow consumer user to use the in-store finder to select store for pick-up
	FR40	Payment processing using direct payment and PayPal
	FR41	Consumer users can view their ongoing pick-up orders

Store Finder UR10	FR42	Include a search box that allows for filtering of stores based on mile radius, address, and zip code
	FR43	Search results display stores on map or in text

Non-Functional Requirements	
Non-Functional Requirement No.	Non-Functional Requirement Description
NFR1	The app will not be a native mobile app but will be a web app
NFR2	The web app can run on any device that has a browser
NFR3	The web app should be compatible with all current, popular browsers
NFR4	Must be compatible with current ERP system
NFR5	Must be compatible with the current company website
NFR6	All interactions on web app need to be completed within 3 seconds
NFR7	Admin and consumer updates to web app data need to reflect within 1 min.
NFR8	The web app can support 3000 simultaneous users
NFR9	The web app must allow for 10,000+ monthly membership subscriptions
NFR10	The web app should be available 24 hours per day, 365 days per year
NFR11	The web app should utilize SSL to protect consumer data in transit to server
NFR12	The web app should prevent against intruders, such as bots, using modern CAPTCHA
NFR13	The web app must support additional feature updates without major reengineering

Approach

- ❖ Develop understanding of key tasks during kick-off meeting with project team
- ❖ Utilize a hybrid SDLC made up of waterfall and agile methodologies
- ❖ Establish schedule for feature creation

-
- ❖ Develop each feature of application in an iterative manner, using a pool of predefined features
 - ❖ Develop understanding of how application touches in-store processes
 - ❖ Develop relevant metrics for measuring performance of application against organizational strategies

Product Acceptance Criteria

For the Farmer's Way consumer shopping enhancement app to be successfully accepted, certain deliverables need to meet specific criteria. These aspects are listed below:

- ❖ Production version of web app needs to have passed all of the QA Lead's software tests
- ❖ QA Lead verified app standards align with Farmer's Way's
- ❖ IT and in-store employee training completed
- ❖ All explicitly stated features in project objectives are within web app's production version
- ❖ User and product requirements have been met
- ❖ IT department briefed for successful transition

Risks

The consumer shopping enhancement app has a variety of risks associated with it. To ensure that the app is successful, these are the potential risks to be aware of:

- ❖ Cybersecurity threats targeting consumer information held on web app
- ❖ Lack of interest in the consumer shopping enhancement web app
- ❖ Estimated project cost baseline might increase further than already estimated shifts
- ❖ Physical resources, such as subject matter experts, apart of project team might quit given responsibilities
- ❖ Application software failing to meet quality standards could delay the implementation of the application
- ❖ Ongoing maintenance of web app could increase project costs
- ❖ Competitors could try to replicate innovative features quickly
- ❖ Cost increases originating from ongoing employee training

Constraints

The project encounters a variety of constraints, of which are listed below:

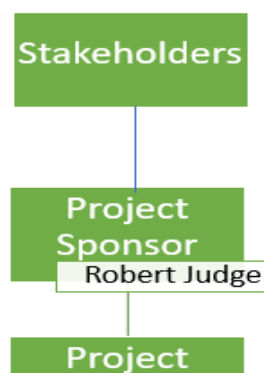
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- ❖ The foremost limitation deals with the physical resources of the IT department.
 - ❖ The capabilities of the in-house software.
 - ❖ The IT department has daily obligations outside of projects to fulfill, thus the availability of the developers is a limiting factor.
 - ❖ Ensuring the web application has exceptional quality with little to no errors.
 - ❖ Time allotted for the project's duration is narrow at approximately 3 months.
 - ❖ The project team should produce a production-ready version of the consumer application by the project due date.
 - ❖ Scope of project is constrained to only the explicitly stated features in the project objectives section
 - ❖ Allocated budget
 - ❖ Availability of in-store management for training of employees

Assumptions

The following text represents critical assumptions associated with the consumer shopping enhancement app:

- ❖ Application development requirements can be fulfilled by in-house IT department
- ❖ Project work will not impede upon IT department's daily operations
- ❖ The given time constraint is satisfactory for completion of work
- ❖ Project team will have a line of communication with in-store management
- ❖ Project team will be able to request appointments with employees who need to be trained
- ❖ Project sponsor will be on call
- ❖ Adequate funding will be available to carry on project work
- ❖ Having all the necessary equipment and tools in good condition to execute there tasks on a timely schedule
- ❖ Employees involved in project will do their work efficiently throughout the project
- ❖ Subject matter experts will remain at Farmer's Way throughout the project

Organizational Structure of Project



Roles and Responsibilities

Name	Role	Position/Organization	Contact Info
Robert Judge	Sponsor	Farmer's Way, CIO	rjudge@farmersway.com
Will Smith	Project Manager	Farmer's Way, PMP from PMO	wsmith@farmersway.com
Thomas Dodge	Lead Developer	Farmer's Way, IT department	tdodge@farmersway.com
Kevin Nguyen	Front-end Developer	Farmer's Way, IT department	knguyen@farmersway.com
Li Chen	Back-end Developer	Farmer's Way, IT department	lchen@farmersway.com
Jehu Bhimarao	Software Developer	Farmer's Way, IT department	jbhimarao@farmersway.com
Emily Williams	QA Lead	Farmer's Way, IT department	ewilliams@farmersway.com
Quavious Marshall	Procurement Agent	Farmer's Way, Procurement dept.	qmarshall@farmersway.com

Preliminary Cost Estimate

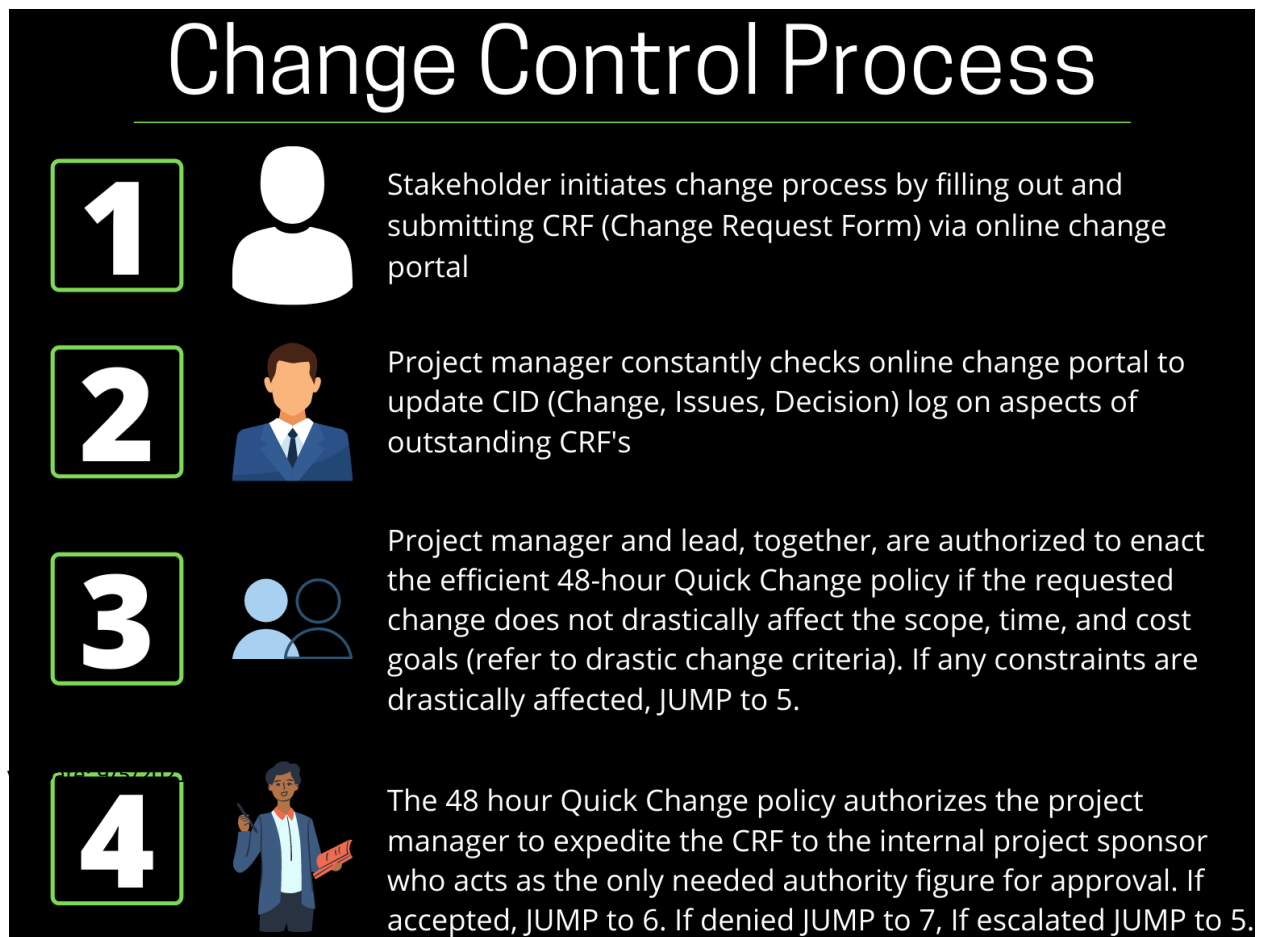
Below is an estimate of the associated project's costs. Transparently, we foresee a possibility of a shift to the cost baseline estimate of 30-75%.

Name of Cost	Associated Cost
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Labor Costs	\$235,200
Geopositional Tags	\$40,000
Server Hosting (1 Year)	\$12,000
Media for Various Web App Features	\$60,000
Technical Writing	<u>\$7,000</u>
Total Estimated Cost Baseline	\$354,200
Estimated Cost Baseline Shift of 30%	\$460,460
Estimated Cost Baseline Shift of 75%	\$619,850

Integrated Change Control

Farmer's Way understands the need for a formal system that can handle inevitable changes to projects. Therefore, the PMO created a change control process which details the sequence of events that play out when a stakeholder initiates a request for change. The process is highlighted in an organizational infographic shown below:



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When a CRF is accepted:

- Change is communicated to project team and relevant stakeholders
- Project deliverables will be updated by authorized project manager. Revision version numbers are used.
- Change request is closed and the CID log updated by project manager

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When a CRF is denied:

- Change request is closed and the CID log updated

Change Authority

Project management-related documents can be changed by:



Project Manager after CRF approval

Changes to project deliverables and baselines (scope, time, cost, quality) will be approved by:



Project Sponsor



CCB

Drastic Change Criteria

For a change to be considered drastic, one of the following must occur:

- Scope's user and product requirements are drastically changed so much so they don't

Authorization

By signing in the section below, you have thoroughly reviewed and analyzed the information contained in this project scope document and agree to the project continuing into the next phases.

Role	Name and Position	Signature	Date
Project Sponsor	Robert Judge, CIO		
PMO Director	Aubrey Graham, PMO Director		
Project Manager	Will Smith, PMP		

Comments

(Handwritten or typed comments from stakeholders, if applicable)

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