

Software Development Plan Template

TITLE PAGE CONTENT

TASTYTRACKS is An application for ordering and delivering food



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Presented To:

Dr Mohamed Ramadan

Submitted By:

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REVISION HISTORY

Date	Author	Distributed to	Version	Description
7 \ 4 \ 2024	Logina	Logina	1.0	The first part of the documentation that includes planning details.

TABLE OF CONTERNT:

Software Development Plan Template	0
TITLE PAGE CONTENT	0
REVISION HISTORY	0
1. PRODUCT DESCRIPTION	2
4. PRODUCT DEFINITION	4
Context Diagram	4
Personas	5
High Level Use Cases diagrams:.....	7
Use Case Description Scenarios:.....	9
.6 USER EXPERIENCE WIREFRAMES	19
7. PROJECT ORGANIZATION	19
Matrix of Responsibilities	19
PERT Chart:	20
Please click here for more clearly file:///C:/Users/PC/Downloads/PART%20CHART.svg	20
7. VALIDATION PLAN	20
Test Strategy	20
8. FEASIBILITY STUDY	21
Risk Identification.....	21
Risk Prioritization.....	21
Risk Mitigation.....	22
9. CONFIGURATION AND VERSION CONTROL	22
10. TOOLS	23
11. ARCHITECTURE	23

1. PRODUCT DESCRIPTION

It's been solved! ...If you resort to trying your luck in preparing biryani, guessing the ingredients of that dish, and buying quantities, then it is a dream for you to finally sit down and travel to another world because of its delicious taste that was spoiled by the smell of burnt food that failed to convince you that there is no benefit or hope!

TastyTracks is the perfect solution to encourage you to follow your dream of tasting delicious food again. That difficult decision to leave the house to get into your car and check the gasoline in anticipation of that long distance to go to that restaurant and back again while you gain fatigue, waste time, and increase the cost or your confidence in preparing that dish yourself while purchasing the ingredients and your lack of experience in estimating the quantity, that enormous effort that ends with black clouds in your kitchen!

TastyTracks is a mobile application that aims to help all types and categories of users serve the process of ordering and delivering food. The application gives you flexibility in choosing food through easy user interfaces that support a description of each dish and the quantity you want, attaching the price, the ability to support your site, and allowing you to track the delivery of the order with Your choice of the appropriate payment method with an unbeatable delivery price.

2. TEAM DESCRIPTION

Concepts Team Member	Logina Mohamed
Android / IOS: Flutter Farmwork UI	X
Dart Programming	X
Google Maps & GPS implementation	
Firebase	X
Laravel	
Payment PayPal implementation	
XAMPP	
Security	X
User interface	X
Research	X

- The skills needed for this project are:
 1. Time management
 2. Positive attitude
 3. Experience in programming
 4. Experience in database administration
 5. Ready to learn
 6. Experience in managing problems
 7. Commitment to deliverables
 8. Continuous Improvement
 9. Diverse search

Overall, Logina comes from a programming background, so the programming/design aspect of this project is under control. She also has a fair amount of experience in the field of information technology, so she has a good understanding of databases and user management.

There is no need for a subject matter expert (SME) given the knowledge you share as this project is aimed at all audiences and it also represents a user with a customer perspective on what would be ideal as a food ordering and delivery app.

There is less than average experience in developing applications and the specific programming languages used to create them. There is also little or no experience in GPS, Laravel, Payment PayPal implementation and XAMPP and this will be worked on and developed.

3. SOFTWARE PROCESS MODEL DESCRIPTION

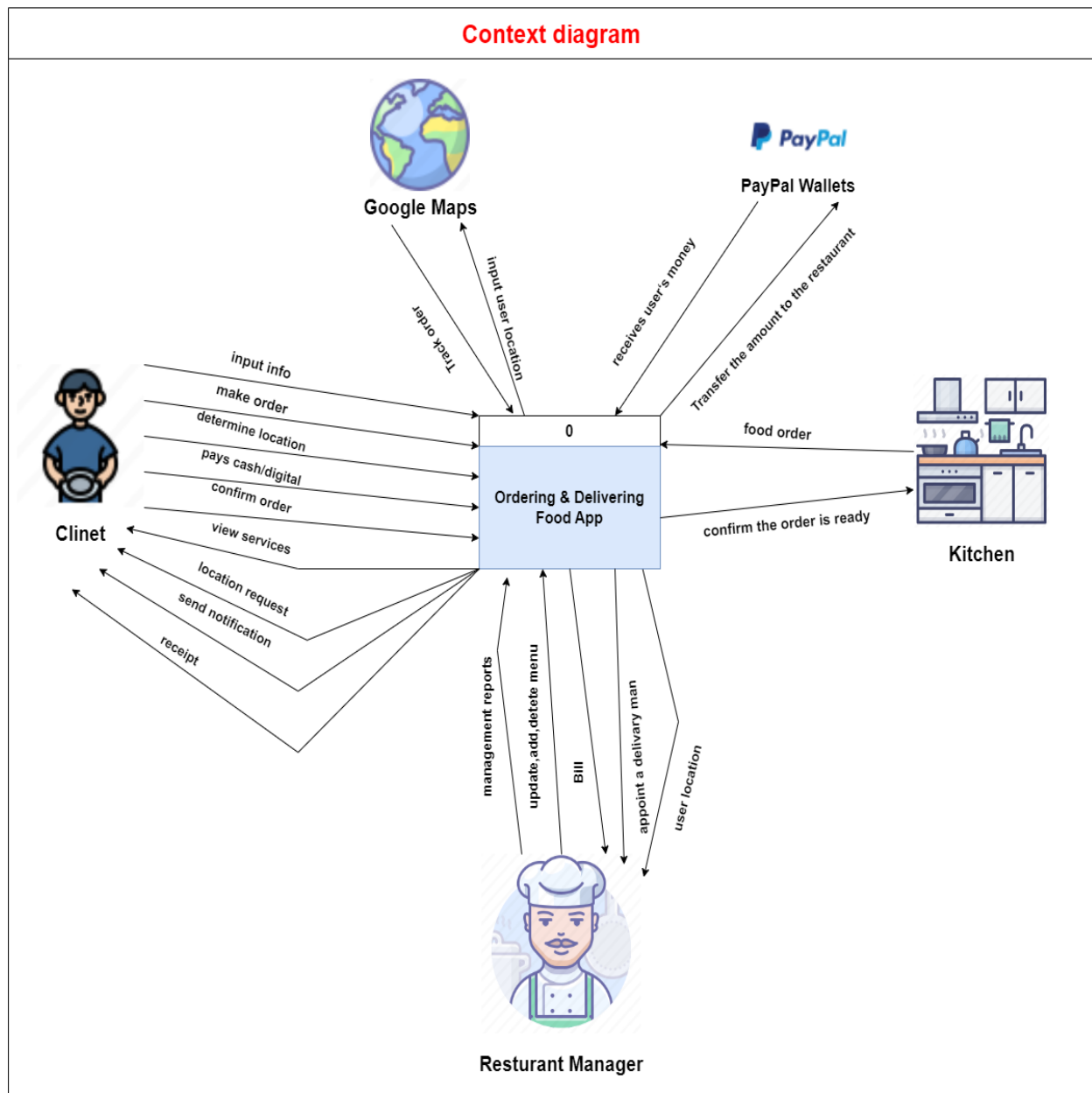
Our top priority is customer satisfaction through early and continuous delivery of valuable programs. By using Agile, we reduce the potential risk as much as we can, as agile processes work to harness change to achieve a competitive advantage for the customer. The problem with using waterfall is its inability to adapt to rapid change and that a copy of the project cannot be seen until it is finished. The project and all its processes are complete so generation enables

you to deliver working software frequently, from a few weeks to a few months, with a preference for a shorter timeline.

As we have approximately 40 days to complete the project, speed of development is crucial.

4. PRODUCT DEFINITION

Context Diagram



Personas

1. Client:

It is anyone who uses the application to operate food ordering and delivery services. As soon as he logs in to the application, all available services are displayed, including displaying food menus, with a description included under each dish and its price, and enabling the user to specify the quantity of dishes for one item and add them to the cart, while allowing the order to be confirmed. Add this to convenient methods of payment, whether cash upon receipt or digital payment via PayPal, using Google Maps to determine the place you wish to deliver to. Everything is supported by the application by showing a notification when any update occurs and finally attaching the invoice.

2. Restaurant Manager:

He is the owner of the restaurant and also represents the admin, as any update issued by the user is approved by him, and he is responsible for informing us of the bill. When the order is confirmed by the user and it is ready from the kitchen, he appoints the delivery man and informs him of the pick-up location. He can also delete, update, or add other items on the menu, and he also receives detailed reports.

3. Kitchen:

In this case, he represents the party that receives the order after the user confirms it. Behind the scenes, the kitchen will prepare the order and then confirm that the food has been prepared and ready for delivery.

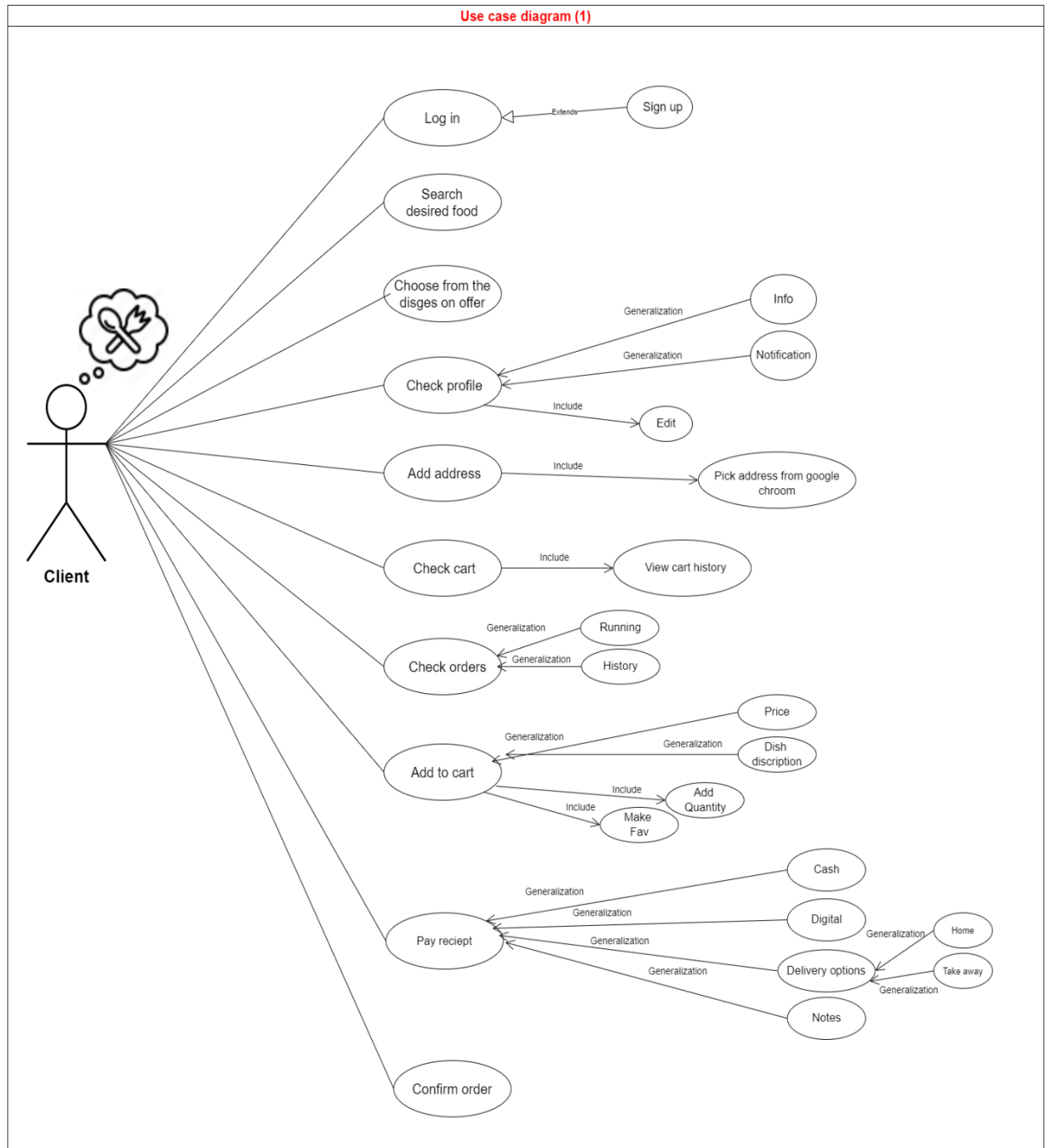
4. Google Maps:

It is a system through which several functions are performed in this application, such as determining the customer's location so that the delivery process can be completed and tracking the movement of the delivery man carrying the order across the map.

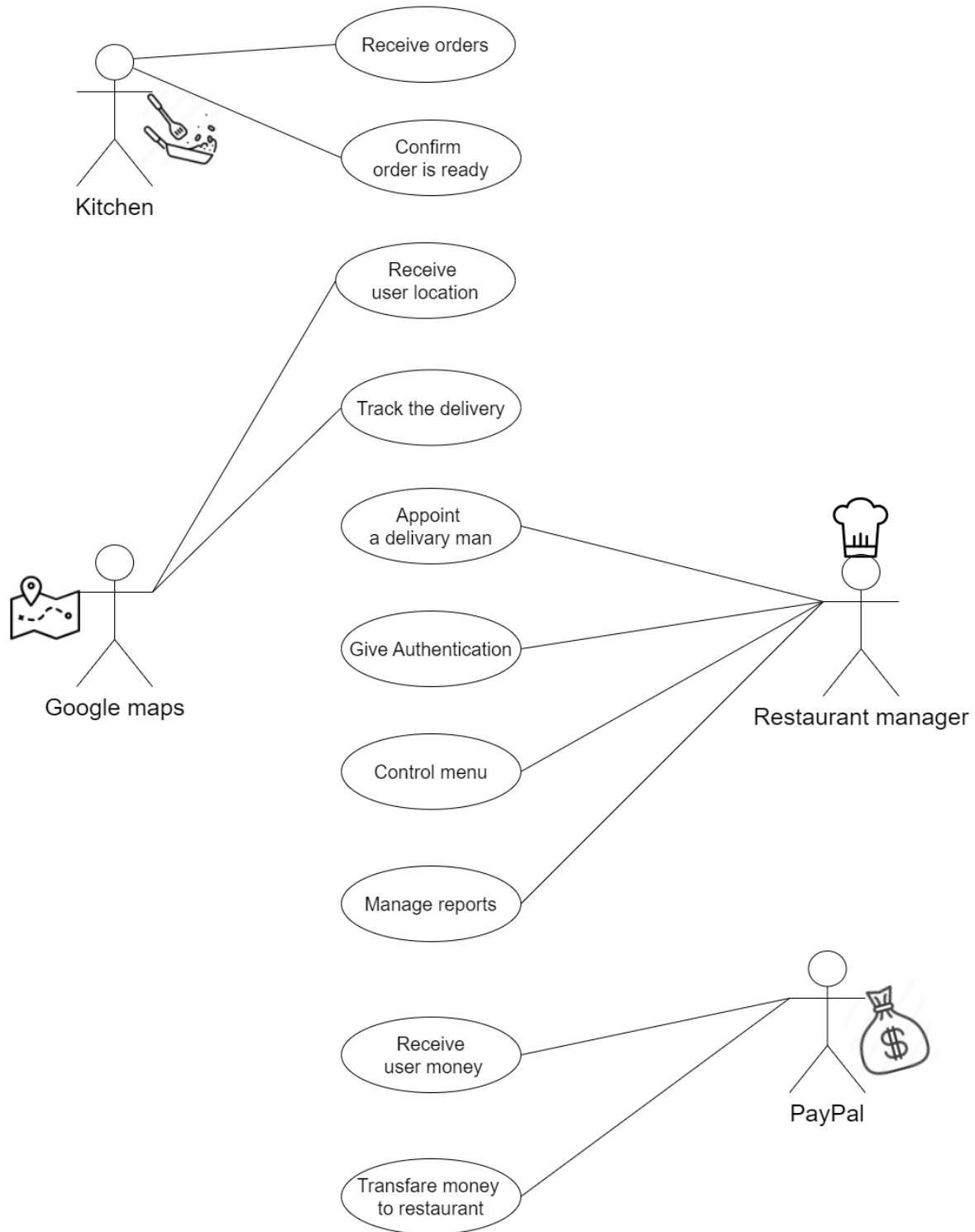
5. PayPal Wallets:

It represents the primary party for receiving the money specified in the invoice from the user and transferring it to the restaurant.

High Level Use Cases diagrams:



Use Case Diagram (2)



Use Case Description Scenarios:

Unique name: Client sign up	UniqueID: UC1.1
Participating actions: Client	
Entry conditions: App is downloaded	
Exit conditions: Account is created	
Flow of events: 1. Customer enters Data (Name, Email, Password, Phone number, verification code) 2. Data is Validated 3. New Account is created	
Special requirements: If data is invalid, display error message and try again	

Unique name: Client log in	UniqueID: UC1.2
Participating actions: Client	
Entry conditions: Account exist	
Exit conditions: User has access to his account	
Flow of events: 1. User enters login info (Phone number, Password) 2. Login info is validated 3. User is sent to home page	
Special requirements: If account is invalid, show error message and try again	

Unique name: Search desired food	UniqueID: Uc2
Participating actions: Client	
Entry conditions: Client is logged in to a his account	
Exit conditions: Search results are returned	
Flow of events: <ol style="list-style-type: none"> 1. Client enters dish he wish to search 2. List of result is returned 	
Special requirements: If nothing appears, make sure you write the name of the dish correctly or this dish does not exist and you will have to search for another one	

Unique name: Choose from on offer	UniqueID: UC3
Participating actions: Client	
Entry conditions: Client is logged in to a his account	
Exit conditions: A page appears with a description of the dish, specifying the quantity and price, the possibility of making it one of the favorites, and finally the possibility of adding it to the cart.	
Flow of events: <ol style="list-style-type: none"> 1. Click on one of the dishes displayed on the Home page 	
Special requirements: No special conditions	

Unique name: Chick profile	UniqueID: UC4
Participating actions: Client	
Entry conditions: Client have already account	
Exit conditions: Update the profile (the client may have modified his profile)	
Flow of events: <ol style="list-style-type: none"> 1. Click on the profile icon from Home 2. Check message, info. 3. Edit profile 	
Special requirements: If the application does not respond in the Add Address field, make sure to allow the application to access your location by opening the GPS and using Google Maps.	

Unique name: Add address	UniqueID: UC5
Participating actions: Client	
Entry conditions: The client is on the profile page and clicks on Add Address	
Exit conditions: The customer's address is specified and saved	
Flow of events: <ol style="list-style-type: none"> 1. Click on Google Map 2. Choose the location from the map or through the search box 3. Press on pick address 4. Click on Save Address 	
Special requirements: If the application does not respond in the Add Address field, make sure to allow the application to access your location by opening the GPS and using Google Maps.	

Unique name: Check cart	UniqueID: UC6
Participating actions: Client	
Entry conditions: Client is logged in to a his account	
Exit conditions: View cart history	
Flow of events: 1. Click on cart icon in the home	
Special requirements: No special conditions	

Unique name: Check orders	UniqueID: UC7
Participating actions: Client	
Entry conditions: Client is logged in to a his account	
Exit conditions: View running and history for orders	
Flow of events: 1. Click on orders icon in the home	
Special requirements: If you do not find any items appearing in the two, this is not a malfunction, it means that you have not requested anything yet	

Unique name: Add to carts	UniqueID: UC8
Participating actions: Client	
Entry conditions: The customer has pre-selected a dish	
Exit conditions: The dish you chose in the quantity you specified has been added to the cart	
Flow of events: <ol style="list-style-type: none"> 1. Choose the desired amount of your chosen dish 2. Add to cart 	
Special requirements: If quantity of your chosen dish is 0, cant add to cart empty	

Unique name: Confirm order	UniqueID: UC9
Participating actions: Client	
Entry conditions: The dishes that will be ordered from the restaurant have been selected	
Exit conditions: The order is confirmed. Go to the payment page	
Flow of events: <ol style="list-style-type: none"> 1. Click on the cart icon 2. Check your orders 3. Click on More 4. Click on Payment and Delivery Options to change the settings to suit you 5. Finish the process with click on checkout 	
Special requirements: Can add notes like (a little more spicy)	

Unique name: Pay the receipt	UniqueID: UC10
Participating actions: Client	
Entry conditions: Client have been pre-clicked on check out	
Exit conditions: The food ordering and payment process has been completed successfully	
Flow of events: <ol style="list-style-type: none"> 1. Choose the appropriate payment method if you previously chose digital payment <ul style="list-style-type: none"> • If you Choose a PayPal wallet, complete the process • Payment has been made 	
Special requirements: If a malfunction occurs in the digital payment process, please check your wallet data and the amount of money saved and try again	

Unique name: Receive order	UniqueID: UC11
Participating actions: Kitchen	
Entry conditions: Have access by pre-logged in	
Exit conditions: Receive the confirmed order from the customer	
Flow of events: <ol style="list-style-type: none"> 1. Click on the new order 	
Special requirements: If the order does not appear on the notification check, it may not appear immediately if there is pressure in the number of orders	

Unique name: Confirm order is ready	UniqueID: UC12
Participating actions: Kitchen	
Entry conditions: Has been received the order	
Exit conditions: Confirm order is ready to delivery	
Flow of events: 1. Click on confirm that the order is ready when the food for the order has been prepared	
Special requirements: No special conditions	

Unique name: Receive user location	UniqueID: UC13
Participating actions: Google maps	
Entry conditions: Have access to receive location updates on the app and GPS	
Exit conditions: The user location is received	
Flow of events: 1. The response is to determine the location that the user searched for and specify it on the map	
Special requirements: If it does not respond and does not capture the location on the user, make sure to switch to the GPS	

Unique name: Track the delivery	UniqueID: UC14
Participating actions: Google maps	
Entry conditions: Have received the user location and The delivery man was pre-appointed	
Exit conditions: The order that is delivered is tracked across the map	
Flow of events: 1. Any distance traveled by the delivery man appears on the map	
Special requirements: When Google Map delays updating the distance traveled, this is not a malfunction. It may be due to congestion or something similar	

Unique name: Appoint a delivery	UniqueID: UC15
Participating actions: Restaurant manager	
Entry conditions: Have access on the app and receive the confirmation from the kitchen	
Exit conditions: The delivery man has been appointed and will begin moving	
Flow of events: 1. Appoint a delivery man	
Special requirements: No special conditions	

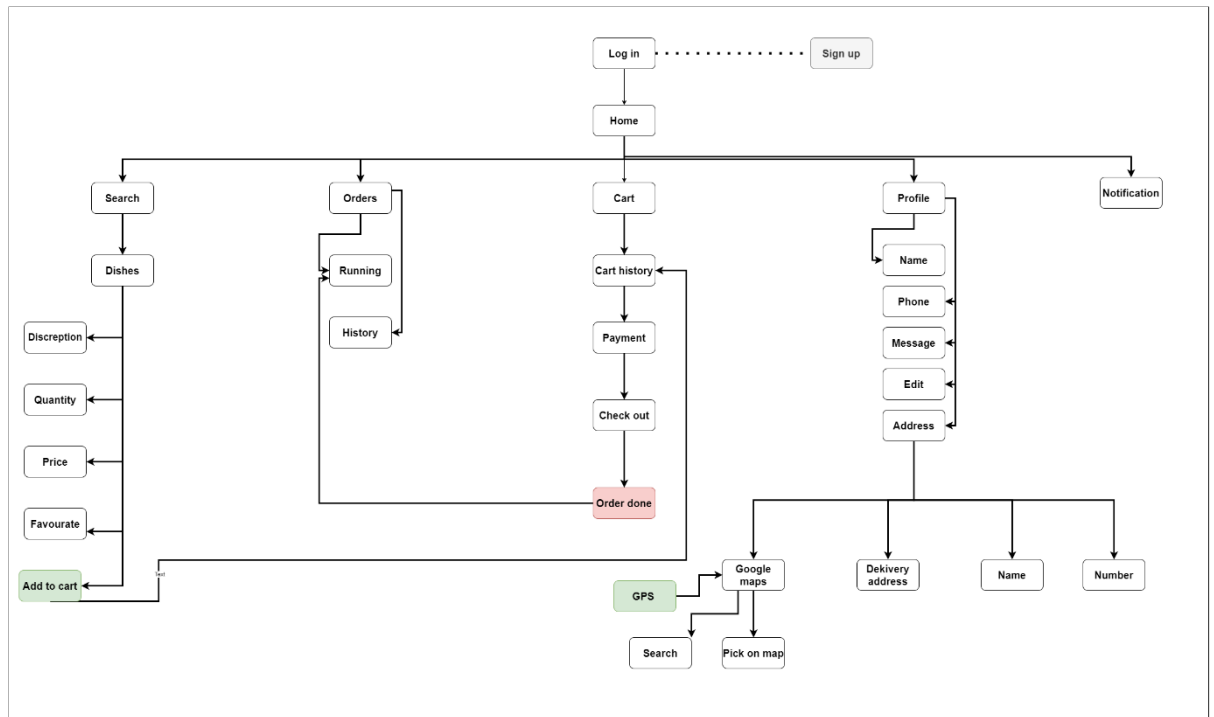
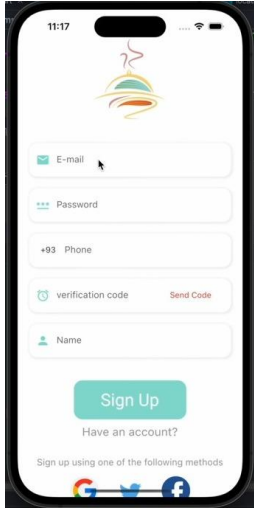
Unique name: Give Authentication	UniqueID: UC16
Participating actions: Restaurant manager	
Entry conditions: Have admin access	
Exit conditions: Give Authentication for users	
Flow of events: <ol style="list-style-type: none"> 1. Giving permission to any update issued by users 	
Special requirements: If there is a security problem, the permission will be blocked	

Unique name: Control menu	UniqueID: UC17
Participating actions: Restaurant manager	
Entry conditions: Have admin access	
Exit conditions: Menu have been checked and edit	
Flow of events: <ol style="list-style-type: none"> 1. Click on menu 2. Click on edit <ul style="list-style-type: none"> • Delete • Add • Update 3. Confirm changing 	
Special requirements: No special conditions	

Unique name: Manage reports	UniqueID: UC18
Participating actions: Restaurant manager	
Entry conditions: Have admin access	
Exit conditions: Reports have been received	
Flow of events: <ol style="list-style-type: none"> 1. Accept the report and open it from Notification 2. Send edits and comments 	
Special requirements: No special conditions	

Unique name: Receive and transfer money	UniqueID: UC19
Participating actions: PayPal	
Entry conditions: Have access on the app	
Exit conditions: The user money is received and to restaurant transferred	
Flow of events: <ol style="list-style-type: none"> 1. Receive the amount from the user on the wallet 2. Transfer the amount to the restaurant 	
Special requirements: No special conditions	

6. USER EXPERIENCE WIREFRAMES

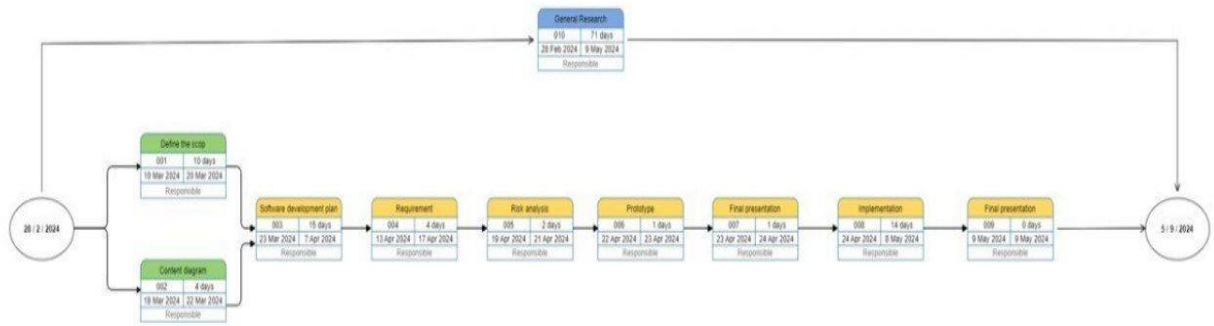


7. PROJECT ORGANIZATION

Matrix of Responsibilities

Concepts / Team Member	Logina Mohamed
Android / IOS: Flutter Farmwork UI	X
Dart Programming	X
Google Maps & GPS implementation	X
Firebase	X
Laravel	X
Payment PayPal implementation	X
XAMPP	X
Security	X
User interface	X
Research	X

PERT Chart:



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7. VALIDATION PLAN

Test Strategy

Our definition of “Done” can be described as success in reconciling validation and verification, whereby after completing all the requirements, we make sure that this is what the user needs in a complete, comfortable and attractive way.

Success from our point of view is when the user is able to use the application and move between its interfaces with ease and complete the process without problems and the application responds to all updates and responds with notification without disruption. The user’s journey from choosing food, the process of determining the location and payment and other rich interfaces that we predict will encourage the user to return to use with ease.

- The main test plan will be as follows:

- 1- Create a user account on the application
- 2- Search for the dish that I like
- 3- Complete the process of adding to the cart
- 4- Determine the location via the Google Maps system
- 5- Confirm the order

6- Go to the payment procedures interface

Success for us will be if all these processes and the behind-the-scenes events that happen in the restaurant's kitchen, the restaurant manager, the PayPal wallet, and the maps system will complete all of that, and the order will reach the right person in the right place, and the order will also be correct.

8. FEASIBILITY STUDY

Risk Identification

When developing a mobile app, the biggest risk we face is that the app will not be noticed, so no one will use it. Another risk could be security. Insecure data storage and untrusted input are also big risks.

Sending incorrect information to any party also constitutes a large risk. Sending an order other than the one the customer wants, or sending it to the restaurant manager instead of the kitchen, constitutes a malfunction, which leads to a large risk.

We are fairly new to mobile app development, so learning these languages quickly in a relatively short period of time is a risk, because failure to succeed in this learning process would undermine the entire project.

Risk Prioritization

1. The app has not been noticed and no one will use it.
2. Storing data insecurely.
3. Sending functions to parties other than those responsible for them.

Risk Mitigation

Late Deliveries: Implement efficient routing algorithms and optimize delivery schedules to minimize delivery times. Additionally, offer real-time tracking to customers so they can monitor the status of their orders.

Data Breaches: Implement robust cybersecurity measures to protect sensitive customer data, including encryption, firewalls, and regular security audits. Educate employees on best practices for data security and privacy.

Payment Fraud: Use secure payment gateways and encryption protocols to safeguard customer payment information. Implement fraud detection algorithms to identify and prevent suspicious transactions. Offer multiple payment options to customers, including cash on delivery and digital wallets.

Negative Customer Reviews: Monitor customer feedback and reviews closely to identify areas for improvement. Address customer complaints promptly and take corrective actions to resolve issues. Focus on delivering high-quality service to build customer loyalty and mitigate the impact of negative reviews.

9. CONFIGURATION AND VERSION CONTROL

For the app: X.Y.Z

X = Major Releases

Y = Minor Feature Updates/Cosmetic Updates

Z = Bug Fixes

Example: First major release, third minor feature update, second bug fix :: Version 1.3.2

In order to keep documentation and different files in order with everyone each one will have a table similar that keeps information on all updates made after initialization and who made each change.

10. TOOLS

1. Firebase
2. Flutter SDK
3. Google Maps API
4. Stripe or PayPal SDK
5. Dio
6. Flutter local notification

11. ARCHITECTURE

- Devices for testing
 - Android
 - iPhone
- Computers for programming
- Track panels
- Account in PayPal for testing