

SCOPE OF WORK

DearCows: “A milk delivery App”

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Document History

Revision	Author / Designation	Date	Comment	Actions
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1. Introduction

1.1 Purpose

The purpose of this document is to present a detailed description of the app and website. It will explain the purpose and features, interfaces, business process workflow of the application, what the system will do, the constraints under which it must operate and how the system will react to the data generated. This document is intended for both the stakeholders and the developers of the system and will be proposed to the client and development team for its approval.

1.2. Scope

Scope of this app is to allow users to subscribe for the milk delivery. Admin will accept the invitation and allocate the distributor.

1.3. Glossary

Term	Definition
Scope of Work	A document that completely describes all of the functions of a proposed application and the constraints under which it must operate
Stakeholder	Any person with an interest in the project who is not a developer
Actor	Users , Admin

2. Business Process Requirements Specification

This section outlines the business process Features for each of the user separately

Types of User Roles:

2nd Level Users - Users

1st level Users - Administrator

2.1 User Classes and Characteristics

User Characteristics	User Classes
<ul style="list-style-type: none">• Sign up and login• Edit order and make payments• Pause delivery.• List view of all orders	User
<ul style="list-style-type: none">• Accept subscription• Allocate distributor	Admin

2.2 Technology Stack

Browser Compatibility	Device compatibility	OS Compatibility
IE10+ , Chrome , Safari, Firefox	Android: Samsung Galaxy S4, S5,Moto G5, S7 iPhone: iPhone 5, iPhone 5C, iPhone 5S, iPhone SE, iPhone 6, iPhone 6s, iPhone 6 plus, iPhone 6s plus, iPhone 7 , iPhone 7 plus, iPhone 8 , iPhone 8 plus, iPhone X	MS Window & Linux , Mac

Is design to be provided by Client	Yes
Is Android native app required	No
Is iOS native app required	No
Android OS versions supported	5.0 to 8.0
iOS versions supported	10.0 to 12.0
Mobile app orientation	Portrait
Is Cross platform app required (like Phonegap, Ionic , React Native etc.)	React Native
Framework	Angular Js 6 , Express
Programming Language	React Native, Node Js
Android app screen size supported	Yes, HDPI: Portrait: 480 X 800px XHDPI: Portrait: 720 X 1280px XXHDPI: Portrait: 960 X 1600px
iOS app screen size supported	Yes, Portrait: 320X480 Portrait: 375 X 667 Portrait: 414 X 736
Mobile app: Is Web Service to be provided by Inheritx solution	Yes
For Android app – is uploading on Google Play Store needs to be provided by Inheritx solution on client's provided account.	Yes

For iOS app – is uploading on Apple iTunes store needs to be provided by Inheritx solution on client's provided account.	Yes
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3. User Functionality

3.1 Walk through

3.1.1 Who we are

It will display static information provided by the client.

3.1.2 What we do

It will display static information provided by the client.

3.1.3 Get on Board

This screen will display two buttons “Sign up” and “Login”.

3.2 Sign Up

It will be a multi step form with input fields First name, Last name, Phone, email, unit number, street address, Area/Locality and Zip Code. After filling the details user will click on the “Sign up” button and verification OTP will be sent to the user's phone number. To make easy navigation “Back” button will be available at each step. Area/Locality will be dropdown field so user have to select the area from the dropdown.

After successfully signed up admin will verify the account. Until the admin verify the account user status will be pending.

If user try to login into the app before verify the account by admin then he/she will able to see History/List, notification and setting screen. Home/Dashboard and delivery option in setting screen will be disabled. After verification is done by admin they will be enabled.

3.3 User verification

There will be input field for OTP. The user will enter OTP received through SMS. After successful user verification, user will be redirected to the login screen. In case of unsuccessful verification user need to re-enter OTP with the help of resend button. OTP will be expire after 1 minute so after 1 minute if user enters the OTP and hit submit then API will give an error that “OTP is not valid” so user have to hit the resend button.

3.4 Login

There will be two input field phone number and password. The user will enter phone number and Password. After successful authentication, user will be redirected to the Home screen. In case of unsuccessful authentication, user will be asked to re-enter login and password.

3.4.1 Forgot password

By clicking on forgot password link user will redirect on forgot password screen which have one text field phone number. Here user have to enter the registered phone number and if that number not found then alert text will be shown to the user in red color under the text field. If a number is correct then OTP pin will come to that number and screen will be changed with pin number text field and if pin is entered by user is correct then app will be redirected to password change screen here there will be a two text field one is “New password” and another is “Re-Enter new password” there will be two buttons one is back for the goto previous screen and another is submit for submission of the new password and after getting success on submission user will be redirected to the login screen again.

3.5 Home/Dashboard

3.5.1 Manage Orders

There will be a “**Today’s order**” card displaying the amount of milk that would be delivered on the current day with edit option. The user will have ability to edit the delivery amount.

There will be an “**Upcoming Vacations**” card displaying the start and end date of the paused delivery. If there is no pause delivery it would display N/A. The user will have the ability to manage the vacation.

Note: Making any change in the Manage order section between 12:30 PM to 02:00 PM would show an alert stating “It is past 12:30pm Order cannot be edit now.”

3.5.1 Manage Account

There will be a “**Total Amount Ordered**” card displaying the amount of milk that has been delivered since subscription. It will have a view button which would allow user to view date wise delivery.

There will be “Account balance” card displaying the available balance of the remaining quantity of the milk. By pressing the manage button the user will be moved to a screen where he/she can add the balance.

3.6 Today's Order edit

This screen will display Today's date at the top and a number picker to select quantity. There are 2 buttons at bottom “Back” and “Edit”. If the user presses back he would be redirected again to Dashboard screen and if the user presses edit button then it would change to “Submit” button and user then can change the order with a fraction of 0.5 litres, he/she can either use +/- buttons or can change directly by writing on the number space. If the user does not press “Submit” and presses the “Back” button at that time +/- button would be hidden and the user cannot make the changes in the order and again there will “Edit” button instead of “Submit”.

User should click on “Submit” button to save edited delivery. User would not be able to edit the order of next day after 12:30 PM if he/she wants to edit the next day order info then they have to change before 12:30 PM and also user would not be able to update the order of any of the date in between 12:30 PM to 02:00 PM but after 02:00 PM he/she is able to update the order from next to next day and so on but next day is not possible after 02:00 PM. There will be a default native calendar picker will be shown to user for selecting the date. After successfully edit and submit of the order a new screen will appear stating “Your Order Has Been Submitted!” and on clicking on “Done” button user will be redirected to Dashboard screen.

When the user is on this screen the home icon on bottom bar would be enabled.

3.7 Set Vacation(Pause delivery)

There will be two native date picker for a start date and end date. User needs to fill these input fields and need to click submit button to save pause delivery. The user can click “Cancel” button to redirect to the Home screen. Here same as edit order screen user cannot make any changes between 12:30 PM to 02:00 PM. If the user want to set

vacation for next day then he/she needs to update before 12:30 PM of the current day, after that he can only set it for next to next day and onwards.

Validation is also there like start date should not be less than current date and end date can also not be less than current date. Start and End date can be a same for a one day vacation. If the user is already on vacation then he can edit the “End Date” only and for that also 12:30 PM - 02:00 PM logic would apply.

After successfully edit and submit of the vacation a new screen will appear stating “Your Vacation Has Been Updated!” and on clicking on “Done” button user will be redirected to Dashboard screen.

When the user is on this screen the home icon on bottom bar would be enabled.

3.8 Total milk ordered list

This screen will display the details of milk ordered till date. It will have filters by “All time - Showing the list from when the user has subscribed in descending order (having the latest date at top)”, “Month - Showing the list of the current month” and “Week - Showing the list of the current week” to filter the list. The list will be displayed with “Month” filter by default. This screen will have pagination.

When the user is on this screen the list icon on bottom bar would be enabled.

3.9 Notification Screen

There will be notifications list which would display all notification with dark and light bullet. Today’s notification will be in dark bullet.

When the user is on this screen the notification icon on bottom bar would be enabled.

3.10 Settings

3.10.1 Profile

User update his/her profile. This tab would allow user to update Contact information (First name, Last name, Phone number and email Id), Delivery Information, Delivery Options and Change password.

- **Contact Information**

- Contact information is having user information and user can update it by edit the data and after submission of the data user will receive the pin number and after enter correct pin number user will successfully updated the contact information.
- If the user wants to use a new phone number then it should be verified via an OTP and after success the new number will overwrite the old phone number for that user. The old phone number would be deleted from the database and can be used by any other user in future for registering.
- **Delivery Address**
 - Delivery address is having the address of the user that is entered at the time of signup to the system and after changing the address user has to wait for admin to verify the address details, in the meanwhile user would have limited access in the app wherein Dashboard screen would be disabled for him and he will only be having access to list, notification and setting screen (Also in setting screen Profile > Delivery Options screen will also be disabled). All the disabled screens would be enabled once the admin approves the user's address.
- **Delivery Option**
 - Delivery option has three category that is "Alternate Days", "Daily" and "Custom Day". User can do increment of the milk quantity by clicking on the "plus(+)" and decrement by clicking on the "Minus(-)" icon in the fraction of 0.5 litres.
 - On selecting "**Alternate Days**" option a start date box will appear on clicking to it a native calendar will appear where the user can choose the date to start the facility of alternate days.
 - On selecting "**Custom Day**" option a list of days will be appear to the user and from that user have to select the day which he/she wants milk. Here user can select multiple days. If the user selects on all the options then there will be daily milk delivery but it will be consider as a custom option.
 - On selecting "**Daily**" user will receive the milk on everyday basis.
Note: The user can only choose one option from all at a time and the quantity will apply to any option that he/she has selected.
- **Change password**
 - Change password screen has two text fields "Current password" & "New Password". There are two buttons, one is to cancel the operation and goto previous screen and one is for save the current operation to database which means successfully change the password.
- **Order Complaint**
 - User can able to complain to admin regarding the issues that they are facing for their delivery. There will be one text area provided to write their problems and two buttons will be there one is for back to previous screen and another one is to submit. After clicking on submit button user will successfully submit their queries to the admin. As the complaint is only regarding the delivery so the complaint before 12:00 PM will be considered. A validation message will be shown like "It's after 12:00 PM.Complains can only be submitted before 12:00 PM everyday."

Note: Even though user is complaining before 12:00 PM we cannot identify that the complaint is regarding order or any thing else. Also, there will be no date selection for the user. If they want to complain after 12:00 PM then they can contact the company manually via call.

- **Call popup**

- By clicking on call us button from the setting screen one popup will appear to user with having two buttons one is cancel and another one is call and by clicking on the call button call will be placed from the device side with default number provided by the admin. To clarify the call will not be placed from the app like whatsapp audio call instead call will be placed from the device and charges may applied here as per the plan of the sim card that user have, if there is no sim card installed in the device then app will not responsible for that.

3.10.2 Payment Method

We will be integrating Razorpay for payment. There will be no inbuilt wallet in the app whereas the app can use the default wallet provided by Razorpay. This will happen after clicking on the manage account section from the dashboard and app will be redirected on screen with display title “Recharge balance” here user have to make increment/decrement of the quantity which they have to make payment for that quantity. By clicking on count user can enter a value manually in a number. There will be two buttons one is for cancel the operation and another one is for checkout and by clicking on the checkout user will goto the razorpay payment gateway and from there he/she have to perform the further process of the payment.

3.10.3 Website

It will be a link to DearCow’s website. User will be redirected to the link on device default web browser. This link will not open into the app’s webview.

3.10.4 Terms and Condition

On clicking this option, users will be able to view terms and conditions for using the app webview.

3.10.5 Sign out

On clicking this section, the user will be logged out of the application and will be redirected to “Get on Board” screen.

4. Web Admin Functionality

4.1 Sign In

There will be two input field username and password. The user will enter username and Password. After successful authentication user will be redirected to Address approval screen. In case of unsuccessful authentication user will be asked to re-enter login and password.

4.2 Forgot Password

This screen will have one input field for email. Admin will enter email and link of web to reset password will be sent to admin's inbox.

4.3 Reset Password

This screen have two input fields i.e New password and confirm password. Admin will enter passwords and click submit button to change the password.

4.4 Inactive Customer List and Address Approval

This screen will display a grid of all customers with filters. Admin can filter by "mobile number, Locality name, Distributor name and drop down for status". By default those users will be displayed who haven't been approved by the DearCows team for delivery.

Every row will have a "Approve" and "Reject" button, on click of Approve button a popup will appear showing the list of Distributor in a dropdown fashion. Admin need to select one distributor to completed the process. If Admin clicks on Reject button than one text box will appear where admin needs to add the rejection reason. A Push Notification will be sent for both approve and reject to the concerned user.

Admin can deactivate users but cannot delete the user. Deactivate users cannot access the application.

Admin can export data to PDF/CSV to get the customer list.

4.5 Distributor Management

Admin can see list of distributor. Admin can filter by name, phone number and multiple select dropdown of localities.

Admin can create a distributor with name, Delivery Localities (Multi Select Dropdown) and Phone Number.

Admin can edit distributor, but cannot delete or disable distributor.

4.6 Order Management

Admin can see list of order group by distributor. By default admin can see tomorrow's orders list. Admin can filter data using date and distributor name. Admin can export in PDF or CSV.

4.7 Refund Management

Admin can see list of users. Admin can filter user by Phone number only. There will be 2 option to refund either by Quantity of the milk or money.

On click of money option admin can see how much money user has now in popup and click of ok button litre will become 0. Payment will be done via Razorpay.

If admin click on Quantity button, a popup will open with text box, admin needs to enter litre quantity in number. Click of ok button the litre quantity will be added in user's account.

We are not responsible for the balance credibility the admin adds the milk balance manually. It will be considered as a risk factor from DearCow's end.

4.8 Global Settings

Admin will able to view current price per litre.

Admin will able to edit current price per litre.

Notifications will be sent to the users regarding price increment.

4.9 Notification Management

There will be notification text box in notification screen.

Admin will able to send important notification to the all customers through push notification or text notification.

4.10 Payment History

Admin will be able to view payment history details with User name, transaction id, phone number and payment.

Admin will also be able to view the "Total payment" of all users.

4.10 Delivery Management

Admin will be able to view all users.

Admin will be able to filter locality and customer by multiple selection.

There will be Check box functionality to filter localities

Admin will mark selected customer as paused and disables deliveries to customer.

Admin update the record and send push notification regarding this to those customers.

5. Performance Requirements

1. Website must Perform smooth operation on all screens.
2. Server Performance.
3. Network Performance.
4. Response time for each call on web server should be faster.

5.1 Security Requirements

1. Html Escaping.
2. No plaintext passwords.
3. All data must share on secured network (Ex. https).

6. Conclusion

The main perspective of this project is to make the customers' life easy by creating an online mobile platform where they can subscribe for the milk delivery. In this scope of work, we have described the main purpose of the project and mentioned the technology stack & all the features of the application in detail description that are required for the completion of the project.

7. Notes

1. Area/Locality CRUD is not required. Area/locality will be entered manually in database.
2. For complaint reported from application would be managed by 3rd party service provider "freshdesk" and any decision taken based on that would be complete responsibility of the admin.

3. Next day order is generated by cron job between 12:30 PM to 02:00 PM, during this time user cannot update any information. The deduction of milk balance will be done in advance.
4. The user will get notification when the balance reaches to twice of daily order quantity e.g. if his daily order is of 4 liters so when the balance reaches to 4 liters x 2 days = 8 liters at that time push notification will get fired. Also the same notification will fire when the balance reaches to less than or equal to x liters. This would be done by Cron job at 7PM on daily basis.
5. There will be single admin for now but in future it can have a multiple admin feature.