Detailed Project Charter

project's objectives, scope, timeline, and overall purpose

Project Name: Bellyful

(Price comparison Website & Hybrid App)

Tasks	W1	W2 to W4	W4 to w8	W8 to W9	W9 to w12
Project Kick off Research & Planning					
Define project objectives,scope, and deliverables					
Initiating UI/UX deisigning (week 1)					
Documentation of requirement					
Frontend Development phase					
Multiple screens of the app, including home page, product listings, product details, cart, checkout, user profile, authentication, admin,					
Product listings,component development, admin panel, product details,					
Cart checkout, search functionality, Notification & alerts user authentication and profile backend APIs to fetch search results in real-time and provide relevant suggestions.					
Comparison view, product filter, product categories					
Backend Development phase					
Web Scraping and Data Aggregation third party apis to collect product data from various online retailers	(As we received apis, apis integration work will end in 4 to 5 days)				
Database design & management Database schemas to store product information, Finding and implementing a appropriate database management system Optimize queries for effiecient data retrieval and storage					

Api development Develop RESTful APIs to handle requests from the frontend application and serve data to the client. implement endpoints for retrieving product listings, details, reviews, and user-related information. create a end point for user authentication,registration and profile management			▮		
			▮		
Data agrregation process for product information regularly.				▮	
Research on Price comparison algorithm, will manage factors such as product variations, shipping costs, discounts, and taxes in the price comparison process.				▮	
Will Implement logic to present price comparison results to users in a clear and understandable format.				▮	
manage authentication tokens for authenticated users to authorize subsequent requests.				▮	
Search and Filtering Functionality Implement filtering and sorting options to refine search results by price range, rating, popularity. Optimization of search queries and indexing for fast and accurate search results.				▮	
Notifications and Alerts Set up notification mechanisms to alert users about price drops, product availability, and other relevant updates. Implement email or push notification services to deliver timely notifications to users based on their preferences and subscribed alerts.				▮	
Search and Filtering Functionality Implement filtering and sorting options to refine search results by price range, rating, popularity. Optimization of search queries and indexing for fast and accurate search results.				▮	
Security and Data Protection HTTPS protocol to ensure secure communication between the client and server				▮	
				▮	
Quality Assurance **unit testing:**error handling, and boundary conditions to ensure code reliability and correctness. **Integration testing:** Conduct integration tests to verify that frontend components interact correctly with backend APIs and services **fuctional testing:**Test the functional requirements of the app, including search functionality, product listings, comparison views, user authentication, and checkout process.					▮
Performance testing: Conduct performancetests to measure the app's responsiveness, loading times, and					▮

resource usage under different load conditions,compatibility testing,regression testing, are required before deploying project				
User exceptance tesing (UAT) Validate that the app meets user expectations, addresses their needs, anddelivers a satisfactory user experience.				

Project Title : Bellyfull Step 2

Proposal for Price Comparison and Deal App Development

Objective: The price comparison and deal app project aims to deliver significant value to users by simplifying shopping decisions, saving both time and money. Through intuitive features and personalized recommendations, the app seeks to enhance the overall user experience, empowering individuals to make informed choices. By aggregating product information and showcasing deals from various retailers, the app promotes transparency and fair competition in the market, ultimately driving revenue for the client

SOW (scope of Work)

Includes Website and Hybrid App

key components Of this Projects are

Defining Features and Functionality

- **User Registration and Profiles:** Allow users to create accounts and personalize their experience.

- **Search and Filter Options:** Enable users to search for products/services and filter results based on various criteria (price, brand, category, etc.).

- **Price Comparison Engine:** Integrating APIs or develop a web scraper to gather price data from multiple sources.

- **Deal Notifications:** Implement push notifications or emails to alert users about price drops or special deals.

- **User Reviews and Ratings:** Allow users to leave reviews and ratings for products/services.

- **Personalized Recommendation:** Provide personalized recommendations based on past purchases, browsing history, and saved items.

- **Wishlist and Save Features:** Enable users to save products/services for future reference.

- **Analytics Dashboard:** Provide insights for both users and administrators, including user activity, popular products, and revenue statistics.

Design and User Experience

- **Develop wireframes and prototypes** to visualize the app's layout and flow.
- Ensuring a user-friendly interface with intuitive navigation. Implement responsive design for seamless usability across different devices (mobile, tablet, desktop).

Backend Development

- Choosing a suitable technology stack (Node.js, MongoDB).
- Developing APIs for communication between the frontend and backend.
- Implement authentication and authorization mechanisms to secure user data.

Frontend Development

- Developing the user interface using modern web development frameworks like React, Angular.
- Will be Ensuring cross-browser compatibility and optimize performance for faster loading times.

Integration of Third-Party Services

- Integrate payment gateways for in-app purchases or premium subscriptions.
- Implement APIs for accessing product data from e-commerce platforms.
- Utilize analytics tools for tracking user behavior and app performance.

Quality Assurance and Testing

- Conducting thorough testing to identify and fix bugs and errors.
- Performing usability testing to ensure a seamless user experience.
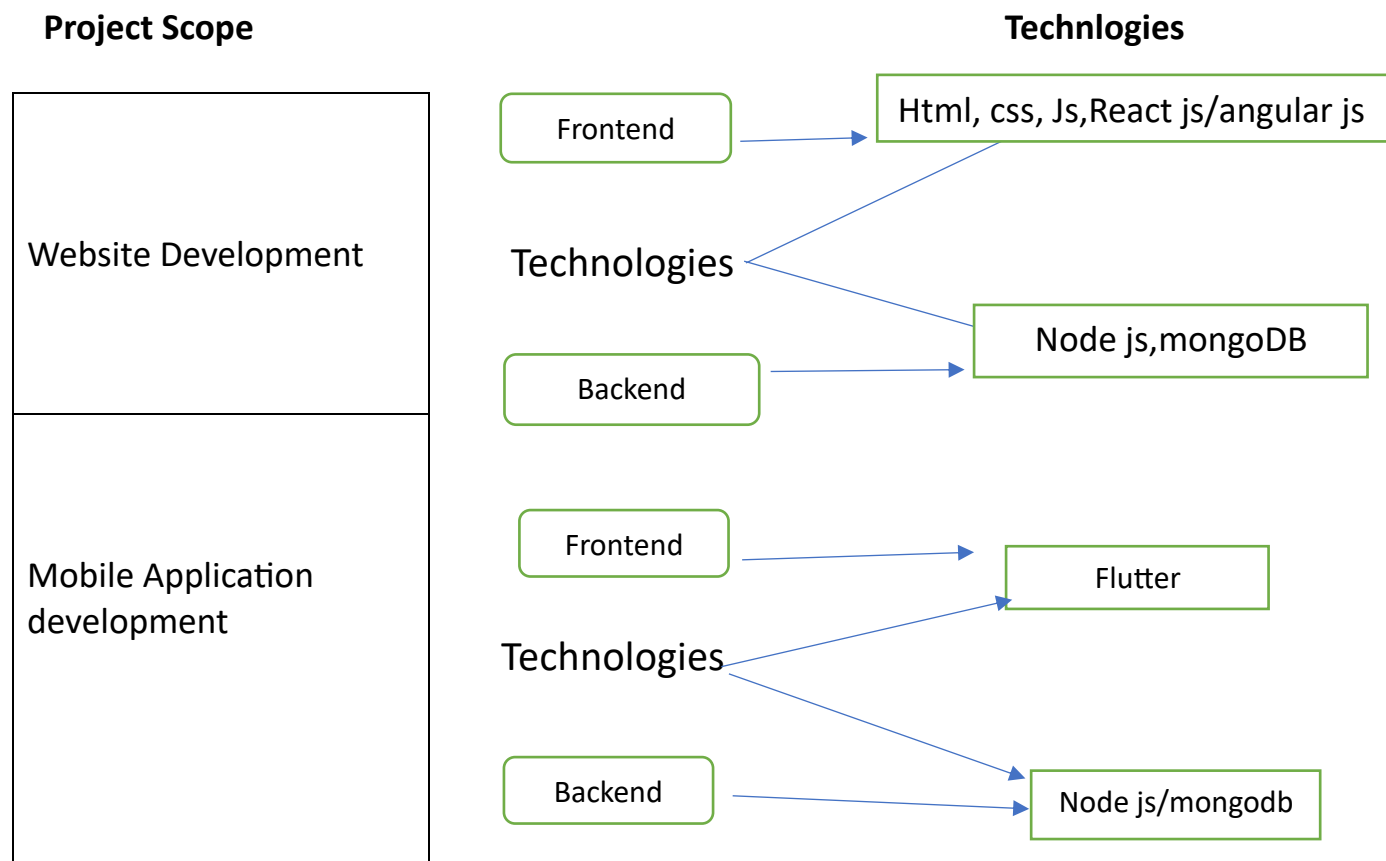- Testing the app across different devices and screen sizes.

Deployment and Launch

- Deploying the app to a reliable hosting environment (AWS, Heroku, Firebase).

Maintenance and Updates

- Regularly update the app with new features and improvements based on user feedback and market trends.
- Monitor server performance and security to ensure smooth operation.
- Provide customer support to address user inquiries and issues.

Tech Stacks

Project Scope   **Technlogies**

Website Development	Frontend → Html, css, Js,React js/angular js
	Technologies
	Backend → Node js,mongoDB
Mobile Application development	Frontend → Flutter
	Technologies
	Backend → Node js/mongodb

Figma Designs

- **Website UI/UX**
  Link:https://www.figma.com/file/k9gaylqRUgzJUyFMpcyPmf/Bellyful-Pages?type=design&node-id=0-1&mode=design&t=HxC0yC21mD61Xqep-0
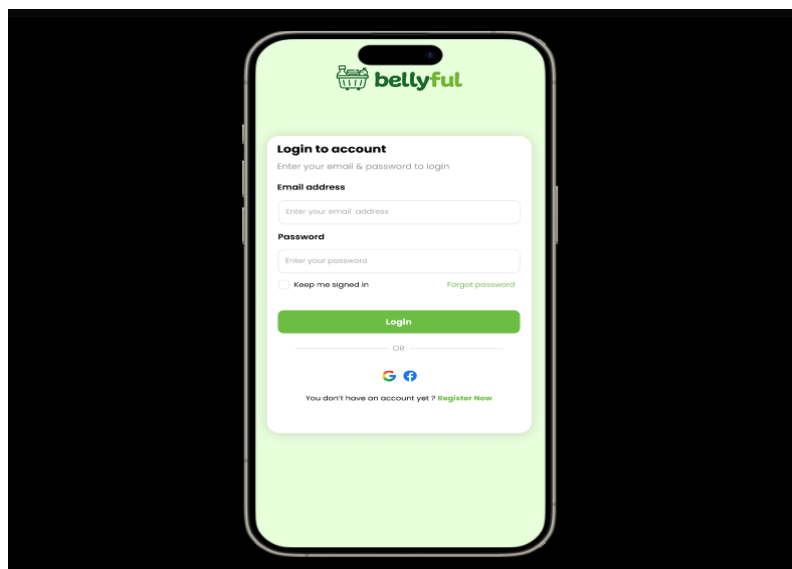
- **Mobile App UI/UX**
  Link:https://www.figma.com/file/VPqtK7csoVfB8Kgc099hQu/bellyful-app?type=design&node-id=0-1&mode=design&t=FWzXLS7jyEtX5lrH-0

- **Admin UI/UX**
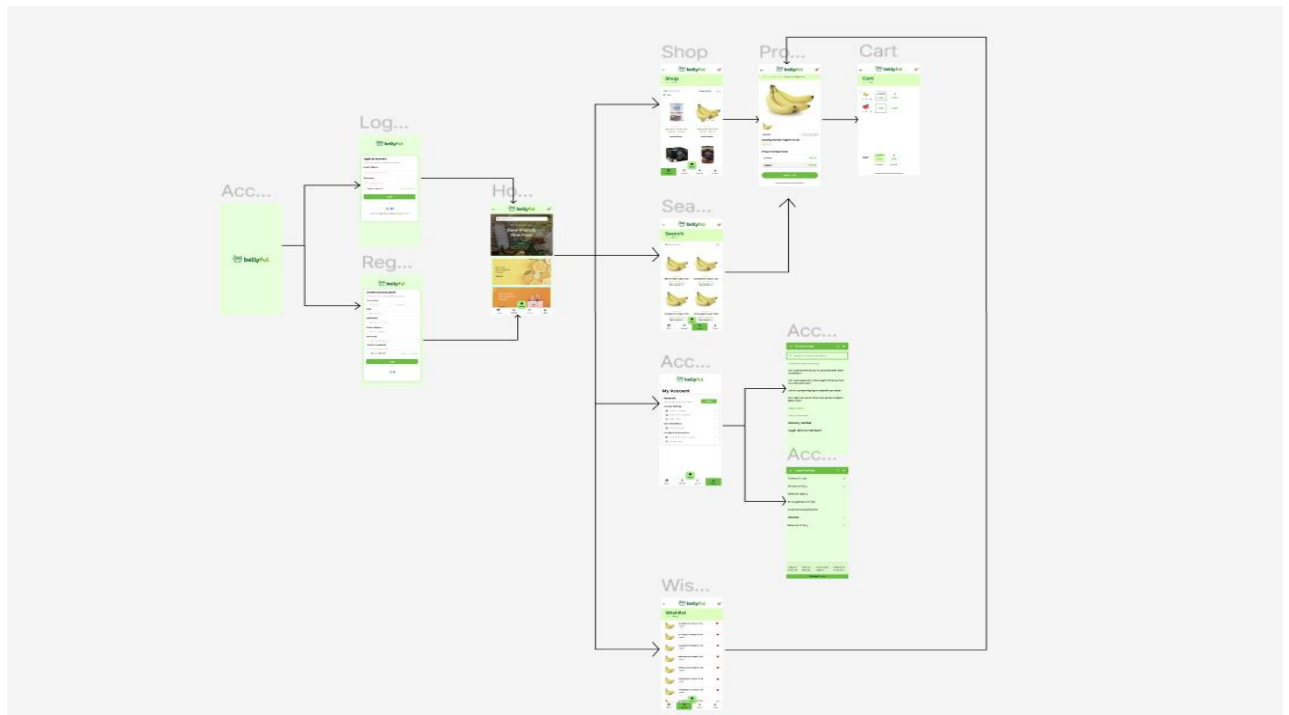 **Link:https://www.figma.com/file/aBLwIkzQPKjYTDs1McJD3i/admin?type=design&node-id=0-1&mode=design&t=2UCXa9IJ7ukH008W-0**

Prototype (Mobile App)

Link:https://www.figma.com/proto/n9e5ZwxBx9No8O5hpYNTKe/bellyful?type=design&node-id=1-18&t=MrgREdLv9ffVn6dv-1&scaling=scale-down&page-id=0%3A1&starting-point-node-id=1%3A73&show-proto-sidebar=1&mode=design

User flow

Link: :
https://www.figma.com/file/n9e5ZwxBx9No8O5hpYNTKe/bellyful?type=design&node-id=0-1&mode=design&t=Wa2GHg0XYxtobs56-0