Software Requirements Specification Document

Jewellery Shopping Platform

GROUP - 4

MOTURU HIMESH – AM.AI.U4AID23013

BANAGANAPALLI MUNI DHANUSH – AM.AI.U4AID23032

BESTA BHAVYA SREE – AM.AI.U4AID23033

JANGA NAGA NANDINI – AM.AI.U4AID23043

1. Project Summary

1.1 Project Overview

Jewellery Shopping Platform is a modern full-stack eCommerce web application for online jewelry shopping. The platform uses Next.js for the frontend and Express.js with MongoDB (using Mongoose) for the backend. It leverages Redux Toolkit and RTK Query for efficient state management and data fetching, Stripe for secure payment processing, and Firebase Authentication for reliable user sign-in via email/password and Google Sign-In. With Bootstrap 5, Sass, and DaisyUI powering the UI, Jewellery Shopping Platform delivers a responsive, user-friendly experience for customers and provides a robust administration panel for managing products, categories, users, and orders. This system streamlines product discovery, shopping, and order processing while explicitly excluding any invoice generation functionality.

1.2 Project Scope

The Jewellery Shopping web application provides a secure and intuitive platform tailored primarily to customers and administrators:

Customer Features:

- **Registration & Authentication:** Users can securely register or log in using Firebase Authentication (email/password and Google Sign-In) with session security enforced via JWT.

- **Product Catalog:** Browse an extensive jewelry collection categorized by product types (e.g., rings, necklaces, bracelets). The collection includes detailed product information, images hosted on Cloudinary, and advanced attribute filters (e.g., price, size, and carats).
- **Shopping Cart & Checkout:** Add one or more products to the shopping cart and complete purchases securely through integrated Stripe payment processing.
- **Wishlist & Reviews:** Manage a personal wishlist to save favorite products and submit reviews and ratings to assist other customers in their purchasing decisions.

Admin Features:

- **Dashboard Management:** Access a secure admin panel to add, edit, or delete products and product categories.
- **User & Order Management:** Oversee customer accounts and manage all orders by updating statuses and monitoring order workflows.
- **System Configuration:** Configure system settings related to product listings and user management.

This application focuses exclusively on enhancing the online shopping experience for customers and simplifying product and order management for administrators. It does not include any supplier-specific features, a supplier panel, or invoice generation capabilities.

2. General Description

2.1 Product Functions Overview

→Types of Users / Actors:

1. **Admin**

   Features:

   - Create, edit, and delete product listings and categories.
   - Manage customer user accounts and assign appropriate roles.
   - View and update orders across the entire system.
   - Configure general system settings through the admin dashboard.

2. **Customer**

   Features:

   - Secure registration and login using Firebase Authentication.
   - Browse and search the jewelry product catalog with filtering options.
   - Add products to a shopping cart and complete checkouts securely via Stripe.
   - Manage a personal wishlist and submit product reviews with ratings.

→User Interface Design Overview:

- **Homepage:**

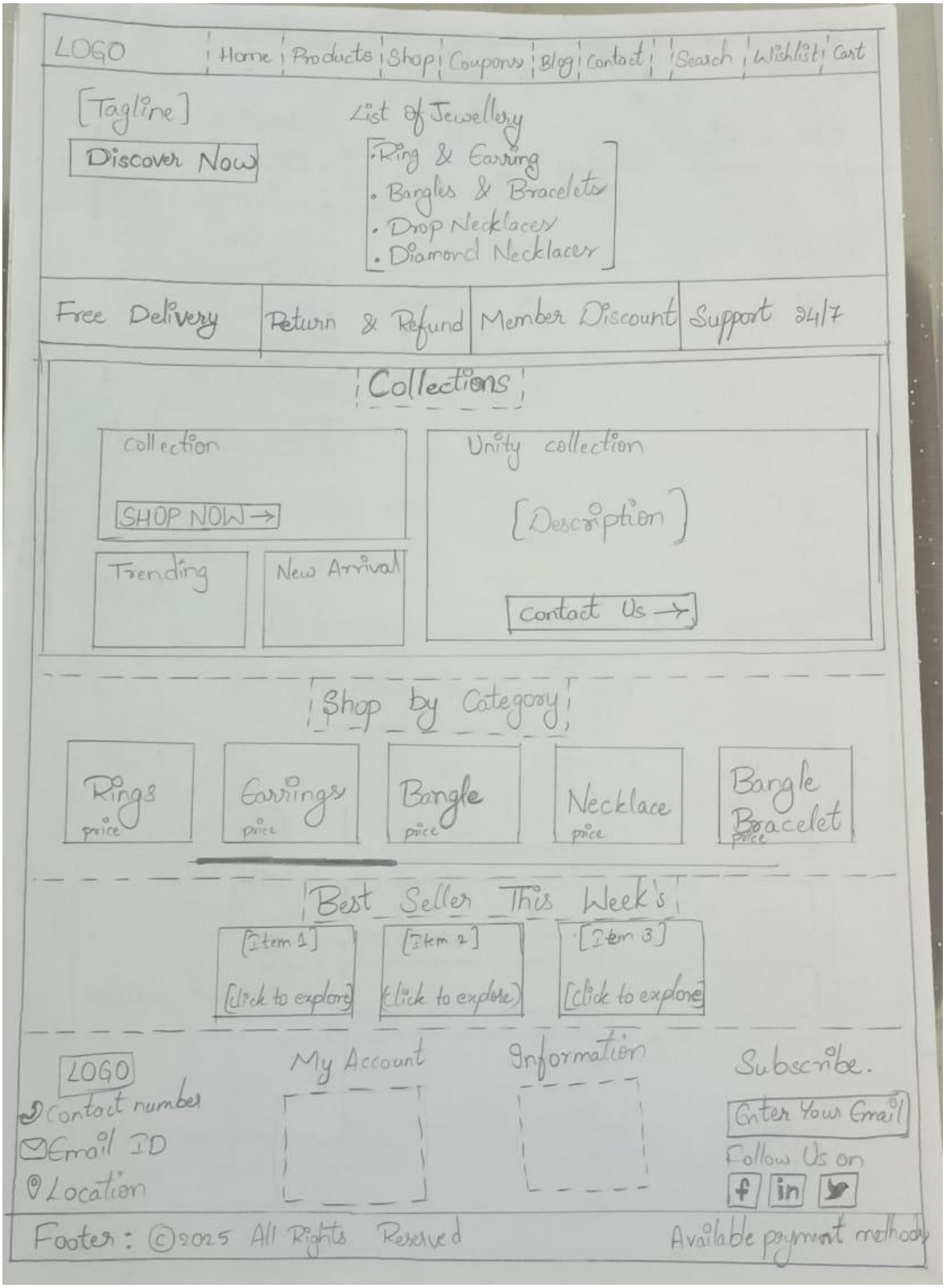
  Showcases featured products, promotional banners, and navigational links (e.g., Home, Products, Categories, Reviews, Wishlist, and User Account).

- **Product Listing Page:**
  Displays jewelry items in a grid or list view with filters for categories, prices, sizes, carats, etc.
- **Product Details Page:**
  Offers detailed product information, multiple images, descriptions, specifications, customer reviews, and options to add items to the cart or wishlist.
- **Cart and Checkout Page:**
  Provides a dynamic cart interface allowing customers to review, update, and confirm their orders using Stripe for payment processing.
- **User Account Dashboard:**
  Presents a personalized area where customers can view their order history, manage their wishlist, and update their profile details.
- **Admin Panel:**
  A secure management interface designed exclusively for administrators to handle product listings, user accounts, and order processing. The interface offers data tables, forms, and dashboards that facilitate efficient system management.

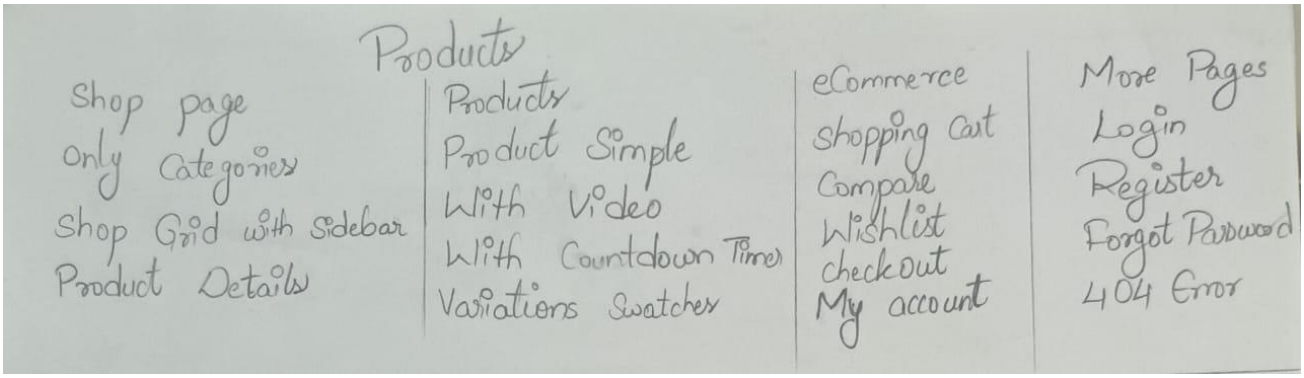
3. Team Members and Feature Ownership

TEAM MEMBER	FEATURE OWNERSHIP
JANGA NAGA NANDINI	Frontend components: Next.js pages, product listing, product details, cart, and overall UI/UX design.
BESTA BHAVYA SREE	Backend development: Express.js API endpoints for products, orders, and user management; Database schema design using MongoDB/Mongoose; Stripe payment integration.
BANAGANAPALLI MUNI DHANUSH	Authentication setup (Firebase), global state management using Redux Toolkit and RTK Query, implementation of product reviews and wishlist functionalities.
MOTURU HIMESH	Design and development of the Admin Panel: administration dashboard, overall system configuration, role-based access control, and project management oversight.

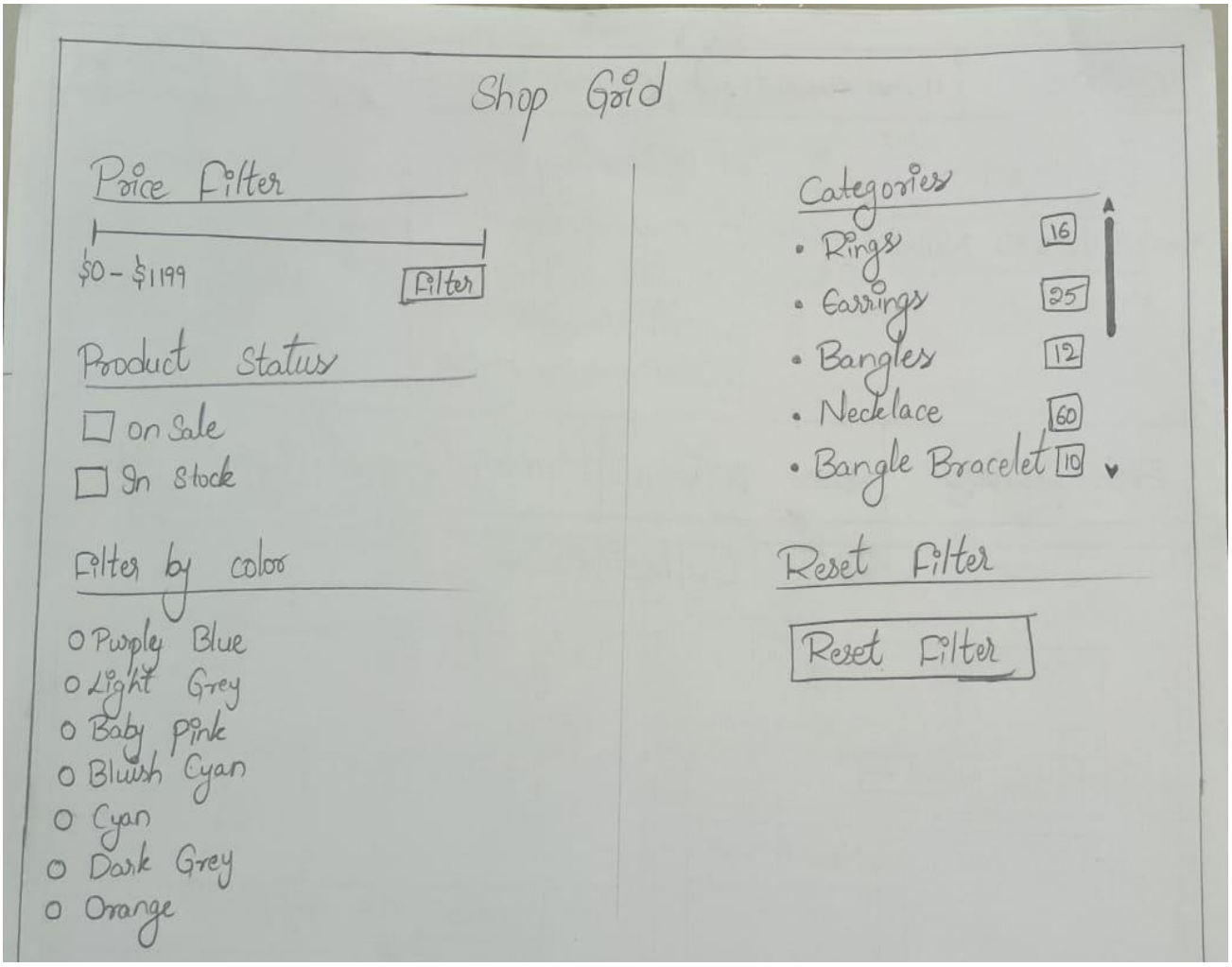
User Interface



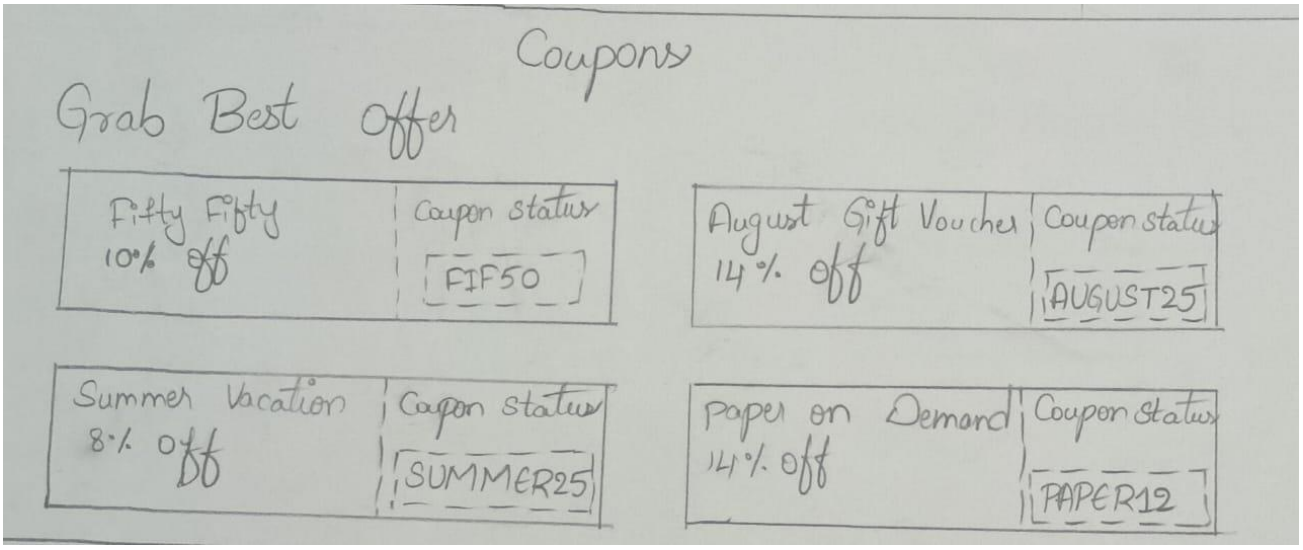
Home page



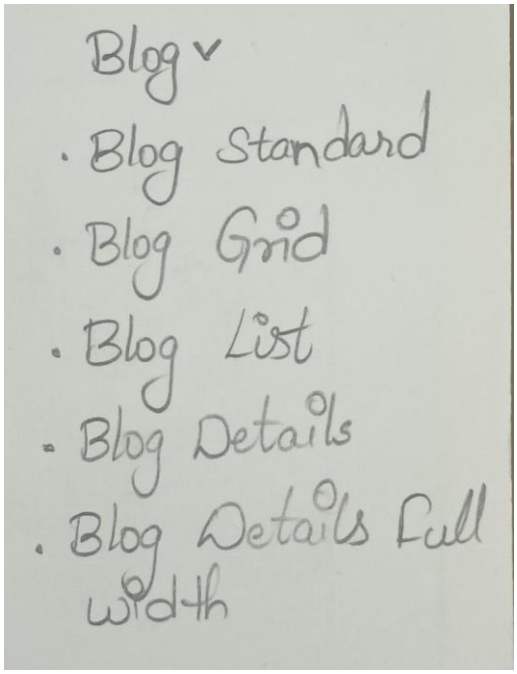
Products



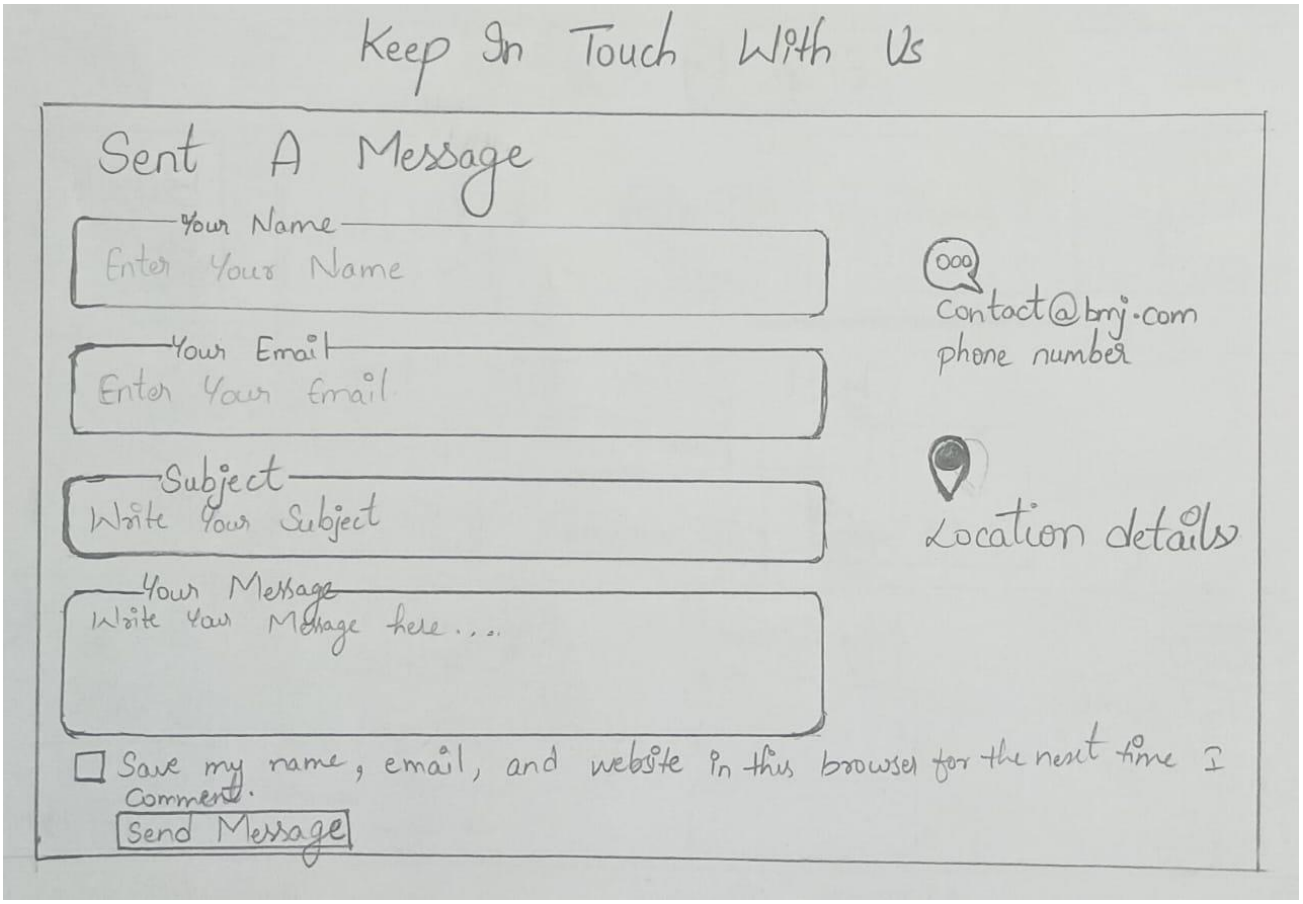
Shop page



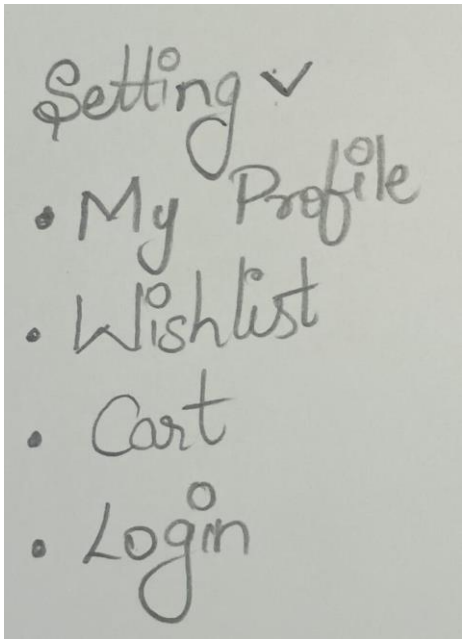
Coupons



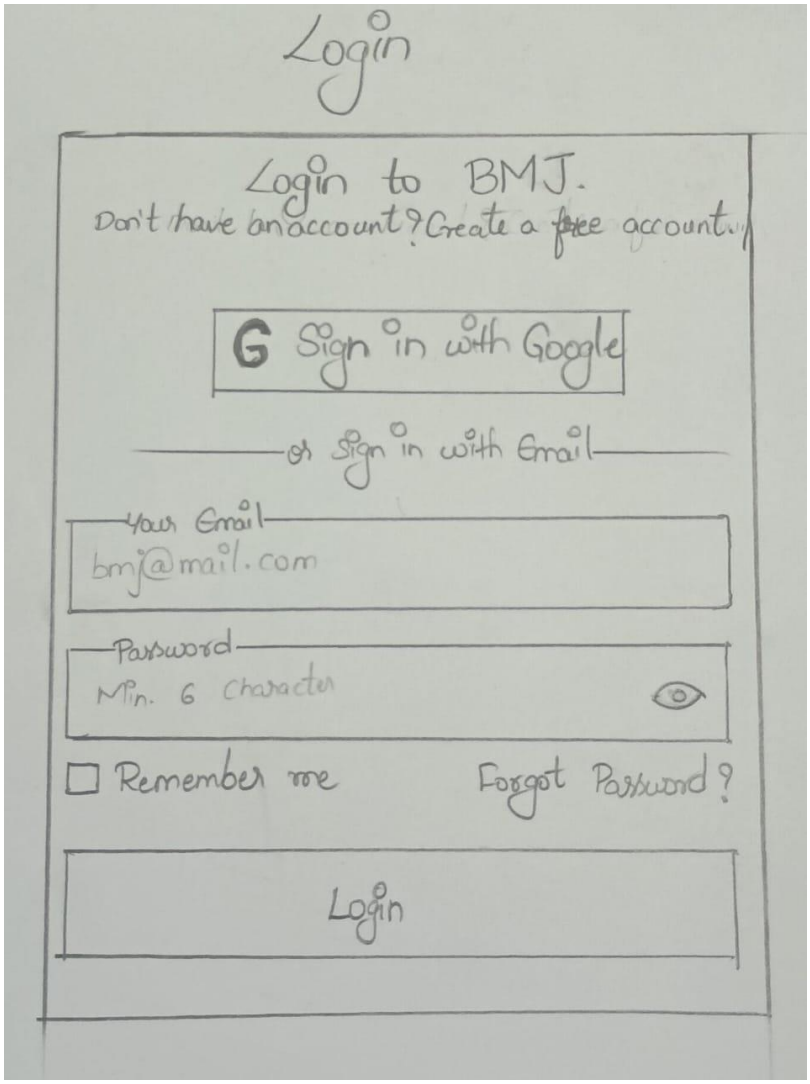
Blog



Contact page



Settings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