CONTENT

EX.01: DESIGNING A RESPONSIVE LAYOUT FOR A SOCIETAL APPLICATION

Aim:

Algorithm:

Program:

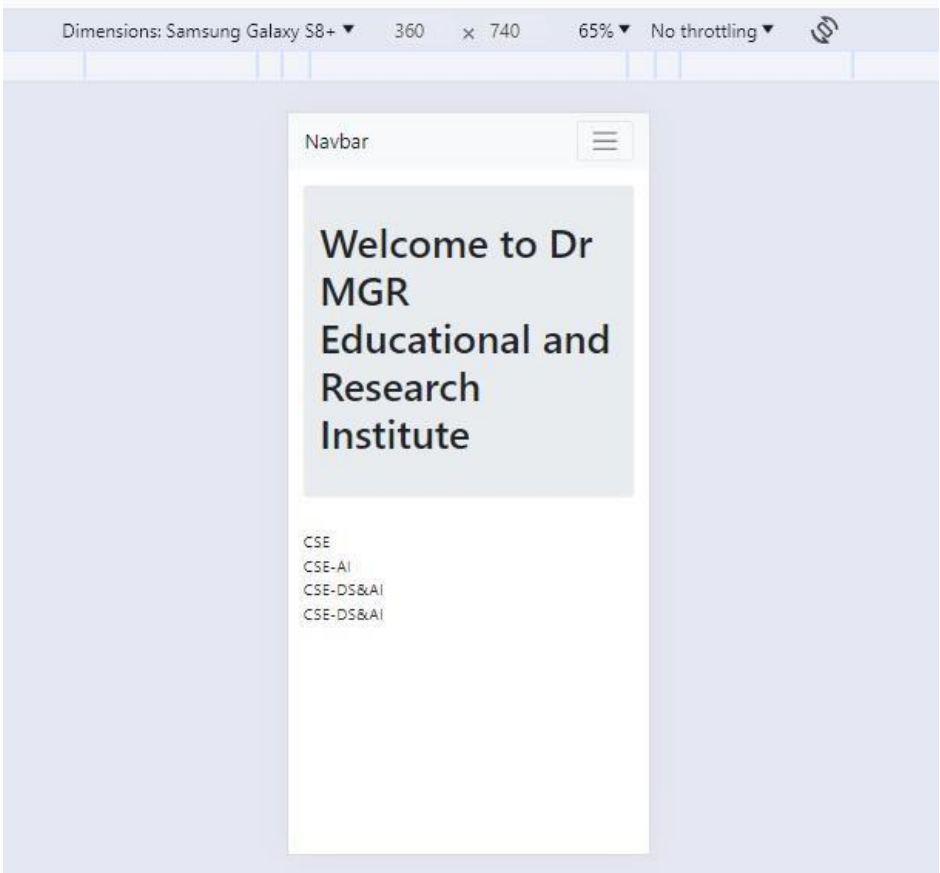
```
<!DOCTYPE html>
<html lang="en">
<head>
        <meta charset="UTF-8">
        <meta name="viewport" content="width=device-width, initial-scale=1.0">
        <title>Bootstrap Example</title>
        <link href="https://stackpath.bootstrapcdn.com/bootstrap/4.5.2/css/bootstrap.min.css"
      rel="stylesheet">
</head>
<body>
          <nav class="navbar navbar-expand-lg navbar-light bg-light">
            <a class="navbar-brand" href="#">Navbar</a>
            <button class="navbar-toggler" type="button" data-toggle="collapse" data-
          target="#navbarNav" aria-controls="navbarNav" aria-expanded="false" aria-
          label="Toggle navigation">
              <span class="navbar-toggler-icon"></span>
            </button>
            <div class="collapse navbar-collapse" id="navbarNav">
              <ul class="navbar-nav">
                <li class="nav-item active">
                  <a class="nav-link" href="#">Home <span class="sr-only">(current)</span></a>
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#">HOD Desk</a>
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#">EVENTS</a>
                </li>
                <li class="nav-item">
                  <a class="nav-link" href="#">Contact</a>
                </li>
              </ul>
            </div>
```

```
        </nav>
        <div class="container mt-3">
          <div class="jumbotron">
            <h1>Welcome to Dr MGR Educational and Research Institute</h1>
          </div>
          <div class="row">
            <div  class="col-sm-3">CSE</div>
            <div class="col-sm-3">CSE-AI</div>
            <div class="col-sm-3">CSE-DS&AI</div>
            <div class="col-sm-3">CSE-CFIS</div>
          </div>
        </div>
</body>
</html>
```

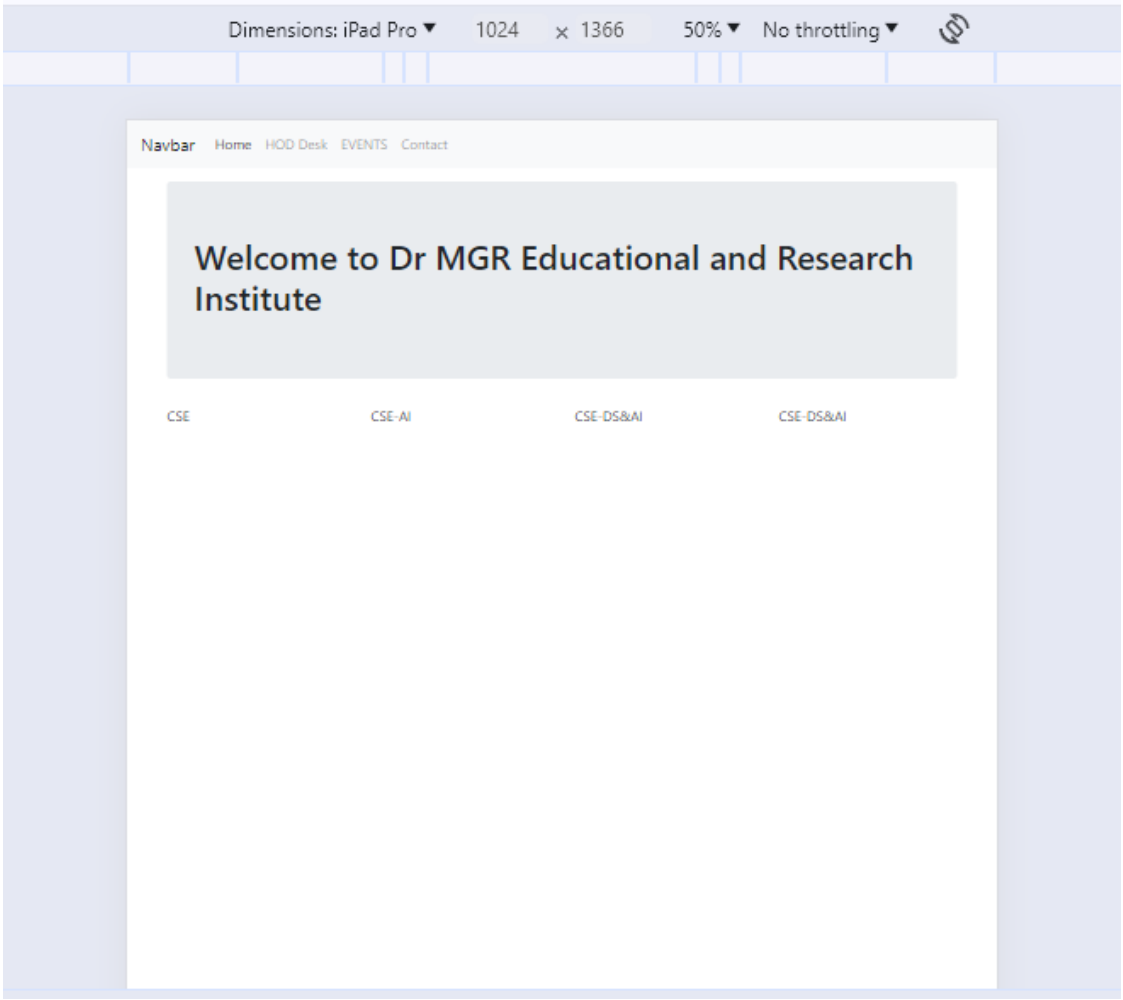
OUTPUT:

DESKTOP VIEW:

MOBILE VIEW:



TABLET VIEW:



Result:

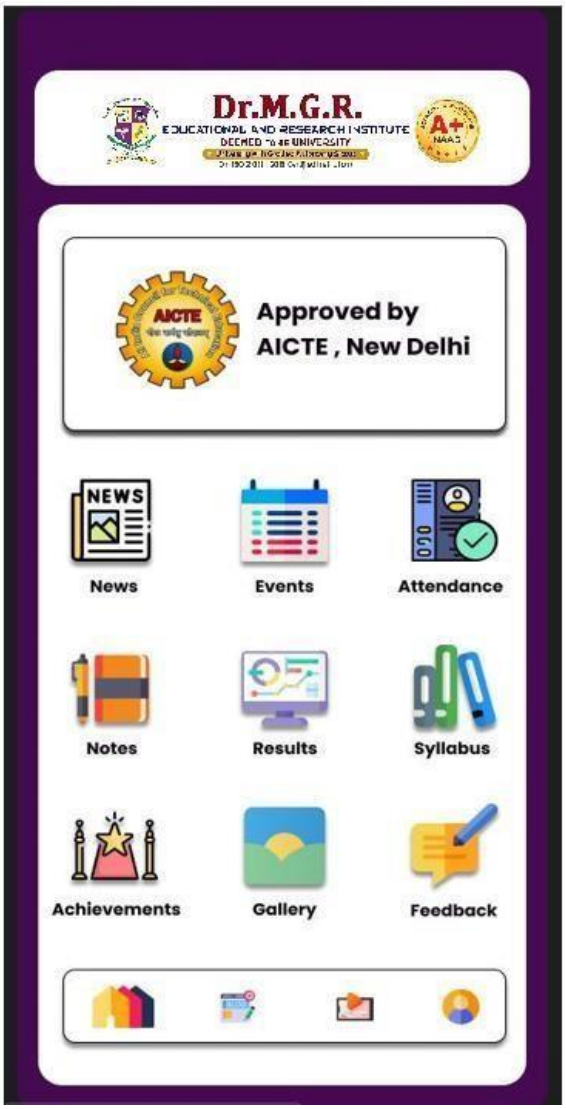
EX.02: EXPLORING VARIOUS UI INTERACTION PATTERNS

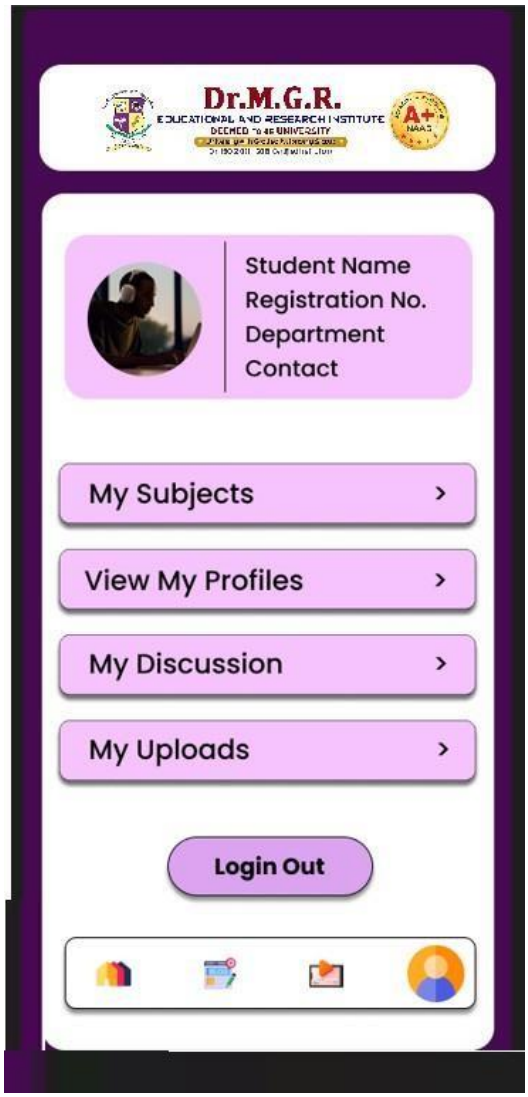
Aim:

Algorithm / Procedure:

OUTPUT:

Figma Design:





Result:

EX.03: DEVELOPING WIRE FLOW DIAGRAM FOR APPLICATION USING OPEN-SOURCE SOFTWARE

Aim:

Materials:

- Computer with internet access
- Browser
- Draw.io

Procedure:

1. **Open Draw.io:**
   - Launch your preferred web browser and go to Draw.io.
2. **Create a New Diagram:**
   - Select **"Create New Diagram"**.
   - Choose a blank diagram and click **"Create"**.
3. **Set Up the Canvas:**
   - Save your diagram to your preferred location (Google Drive, OneDrive, your device, etc.).
   - You'll be presented with a blank canvas to start designing your wireflow.
4. **Enable Wireframe Shapes:**
   - Click on **"More Shapes"** at the bottom of the left sidebar.
   - Scroll down and select **"Wireframe"**.
   - Click **"Apply"** to add the wireframe shapes to your toolbox.
5. **Design the Home Screen:**
   - Drag and drop a **rectangle** from the wireframe shapes to represent the Home Screen.
   - Add elements like **buttons** for "Login" and "Sign Up".
   - Label the screen using the **text** tool.
6. **Create the Login Screen:**
   - Drag and drop another rectangle for the Login Screen.
   - Add **input fields** for Username and Password.
   - Add a **button** for "Submit".

- Label the screen.

7. **Create the Sign-Up Screen:**
   - Drag and drop another rectangle for the Sign-Up Screen.
   - Add input fields for Username, Email, Password, and Confirm Password.
   - Add a button for "Register".
   - Label the screen.
8. **Design the Dashboard:**
   - Drag and drop another rectangle for the Dashboard.
   - Add elements to represent Profile, Settings, and Logout.
   - Label the screen.
9. **Connect the Screens with Arrows:**
   - Use the **arrow tool** from the left sidebar.
   - Draw arrows from the "Login" button on the Home Screen to the Login Screen.
   - Draw arrows from the "Sign Up" button on the Home Screen to the Sign-Up Screen.
   - Draw arrows from the "Submit" button on the Login Screen to the Dashboard.
   - Draw arrows from the "Register" button on the Sign-Up Screen to the Dashboard.
10. **Add Annotations:**
    - Use the **text tool** to add annotations explaining the flow and interactions (e.g., "On Submit, navigate to Dashboard").
11. **Arrange and Style:**
    - Neatly arrange your wireframes and arrows to ensure clarity.
    - Customize the styles (colors, fonts, line styles) using the formatting options in the top toolbar.
12. **Review and Finalize:**
    - Review the entire wireflow to ensure it accurately represents the user journey.
    - Make necessary adjustments for clarity and completeness.
13. **Save and Export:**
    - Save your work frequently.
    - Once finished, you can export the diagram as a PNG, PDF, or other formats by clicking **File** > **Export As**.

OUTPUT:

Home Screen

- Buttons: Login, Sign Up

Login Screen

- Fields: Username, Password
- Button: Submit

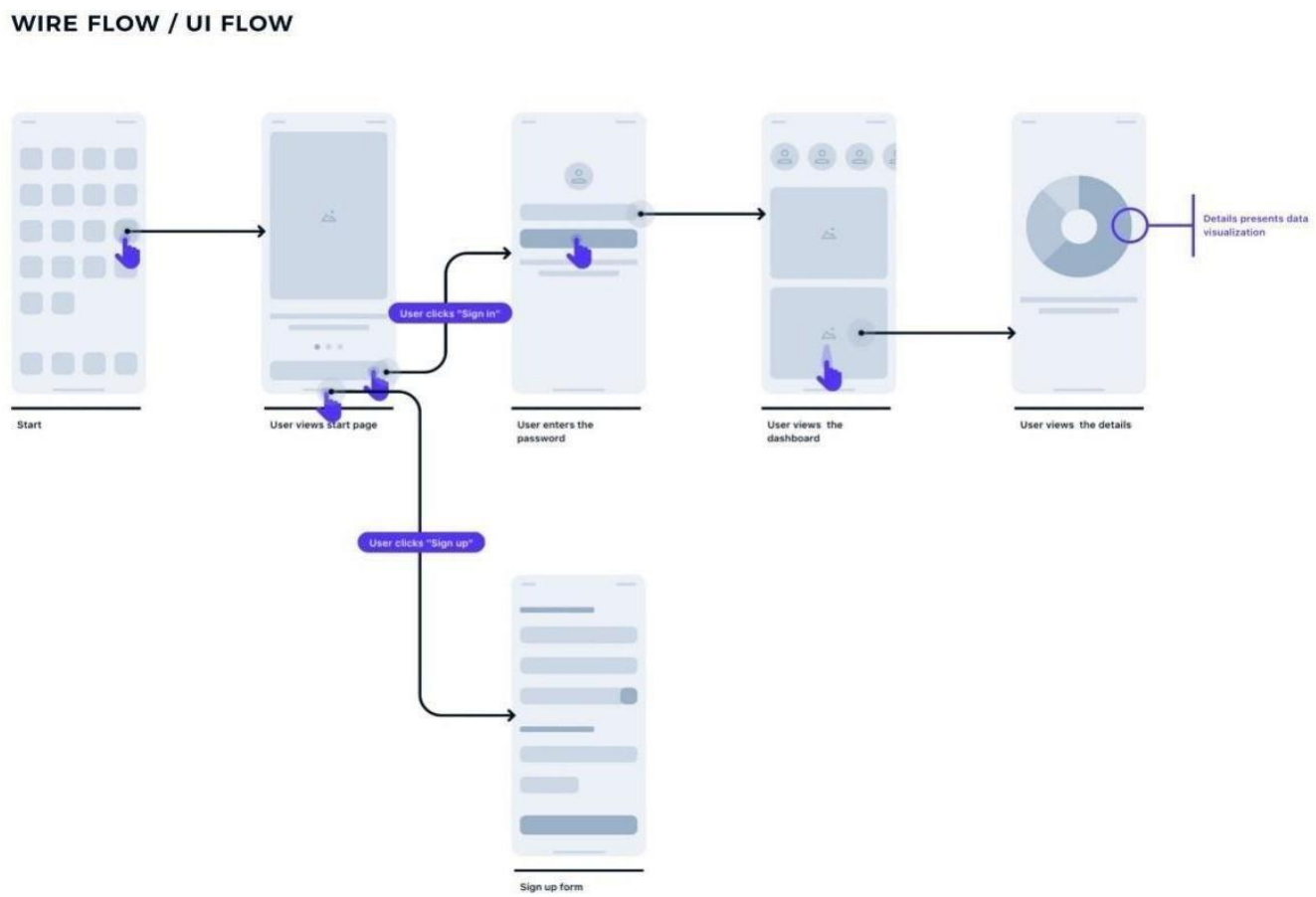
Sign-Up Screen

- Fields: Username, Email, Password, Confirm Password
- Button: Register

Dashboard

- Sections: Profile, Settings, Logout

Design:



Result:

EX.04: HANDS ON BRAINSTORMING PROCESS FOR A NEW SMART HOME DEVICE

Aim:

Materials:

- Computer with internet access
- Browser
- MindMeister account

Procedure:

1. **Sign Up/Login to MindMeister:**
   - Go to MindMeister.
   - Sign up for a new account or log in if you already have one.
2. **Create a New Mind Map:**
   - Click on **"New Mind Map"**.
   - Choose a blank template or any template that suits your brainstorming needs.
3. **Set Up the Main Idea:**
   - In the central node, type the main idea or product you are brainstorming about.
   - Example: "New Smart Home Device"
4. **Add Main Categories:**
   - Add branches for main categories related to the product.
   - Categories might include: Features, Target Audience, Market Research, Development, Marketing, and Budget.
5. **Brainstorm Features:**
   - Under the **Features** category, add sub-branches for potential features of the product.
   - Example features for a smart home device might include: Voice Control, Energy Efficiency, Security Integration, and User-Friendly Interface.
6. **Identify Target Audience:**
   - Under the **Target Audience** category, add sub-branches for different potential users.
   - Example sub-branches might include: Tech Enthusiasts, Homeowners, Elderly, and Renters.
7. **Conduct Market Research:**
   - Under the **Market Research** category, add sub-branches for research areas.

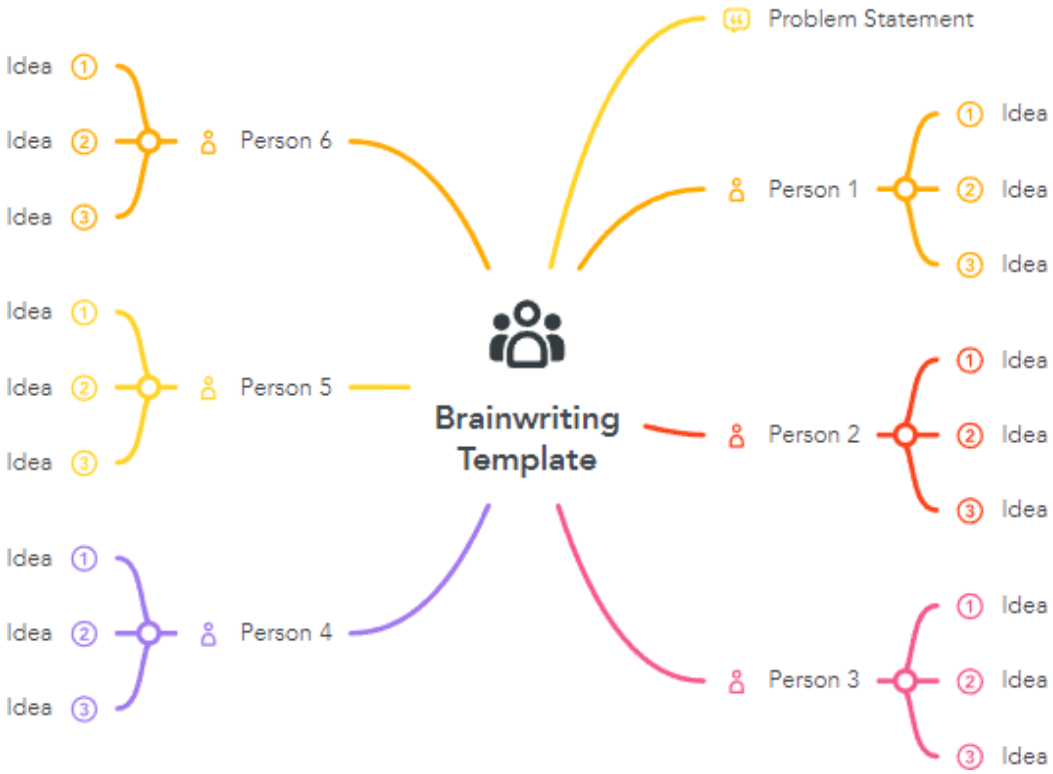
- Example sub-branches might include: Competitor Analysis, Market Trends, Customer Needs, and Pricing Strategies.

8. **Plan Development:**
   - Under the **Development** category, add sub-branches for development stages.
   - Example sub-branches might include: Prototype Design, Testing, Manufacturing, and Quality Assurance.
9. **Create Marketing Strategy:**
   - Under the **Marketing** category, add sub-branches for marketing strategies.
   - Example sub-branches might include: Social Media Campaigns, Influencer Partnerships, Online Advertising, and Trade Shows.
10. **Estimate Budget:**
    - Under the **Budget** category, add sub-branches for different cost components.
    - Example sub-branches might include: Development Costs, Marketing Costs, Distribution Costs, and Maintenance Costs.
11. **Use Collaboration Features:**
    - Invite team members to collaborate by clicking the **Share** button.
    - Team members can add their own ideas, comments, and edits in real-time.
12. **Refine and Organize Ideas:**
    - Use MindMeister's features to rearrange and organize ideas for clarity.
    - Utilize colors, icons, and notes to highlight important points.
13. **Present and Discuss:**
    - Once the mind map is complete, present it to your team or class.
    - Discuss the ideas and refine the mind map based on feedback.
14. **Save and Export:**
    - Save your mind map frequently.
    - Export the mind map as a PDF, image, or other formats by clicking the **Export** option in the menu.

OUTPUT :

New Smart Home Device

- Features
    - Voice Control
    - Energy Efficiency
    - Security Integration
    - User-Friendly Interface
- Target Audience
    - Tech Enthusiasts
    - Homeowners
    - Elderly
    - Renters
- Market Research
    - Competitor Analysis
    - Market Trends
    - Customer Needs
    - Pricing Strategies
- Development
    - Prototype Design
    - Testing
    - Manufacturing
    - Quality Assurance
- Marketing
    - Social Media Campaigns
    - Influencer Partnerships
    - Online Advertising
    - Trade Shows
- Budget
    - Development Costs
    - Marketing Costs
    - Distribution Costs
    - Maintenance Costs


Problem Statement
Person 1
Idea
Idea
Idea
Person 2
Idea
Idea
Idea
Person 3
Idea
Idea
Idea
Person 4
Idea
Idea
Idea
Person 5
Idea
Idea
Idea
Person 6
Idea
Idea
Idea
Brainwriting Template

Result:

EX.05: DEFINING THE LOOK AND FEEL OF THE NEW PROJECT

Aim:

Procedure:

Step 1: Set Up Your Thunkable Project

1. **Log in to Thunkable:**
   - Go to Thunkable and log in or sign up for a new account.
2. **Create a New Project:**
   - Click on the "Create New App" button.
   - Name your project (e.g., "LoginApp").

Step 2: Design the Login Screen

1. **Add a New Screen:**
   - By default, a new screen (Screen1) will be created. This will be your login screen.
2. **Add Components for Login:**
   - Drag and drop two Text Input components from the left sidebar to the screen. Rename them to usernameInput and passwordInput.
   - Drag and drop a Button component. Rename it to submitButton and change its text to "Submit".
3. **Style the Components:**
   - Customize the appearance of the text inputs and button (optional).

Step 3: Add a Second Screen

1. **Create a New Screen:**
   - Click the "+" icon next to "Screen1" to add a new screen. Name it webViewScreen.
2. **Add a Web Viewer Component:**
   - Drag and drop a Web Viewer component onto the new screen.
   - Set the URL of the Web Viewer to https://www.drmgrdu.ac.in.

Step 4: Add Navigation Logic

1. **Navigate Back to Screen1:**
   - Go back to Screen1.
2. **Add Blocks for Button Click:**

- Click on the "Blocks" tab to switch to the blocks view.
- Drag a when submitButton Click block from the left sidebar (under the submitButton category).

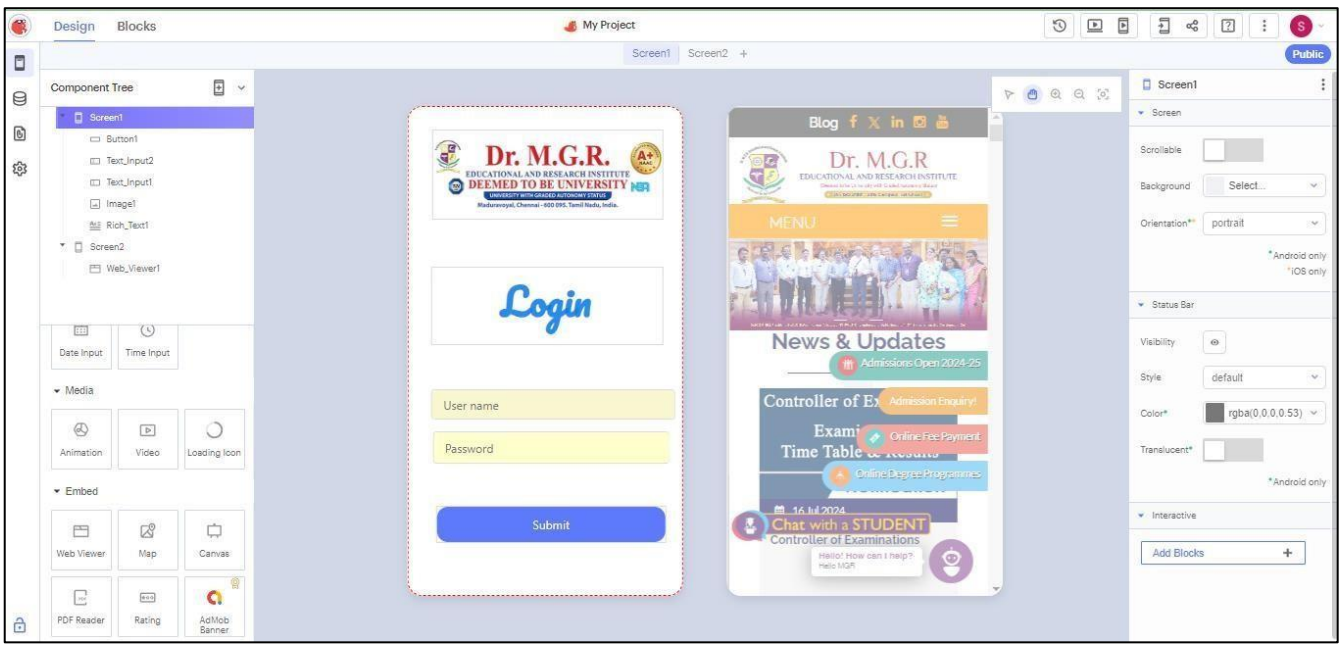
3. **Add Navigation Logic:**
   - From the Control category, drag a navigate to webViewScreen block and place it inside the when submitButton Click block.

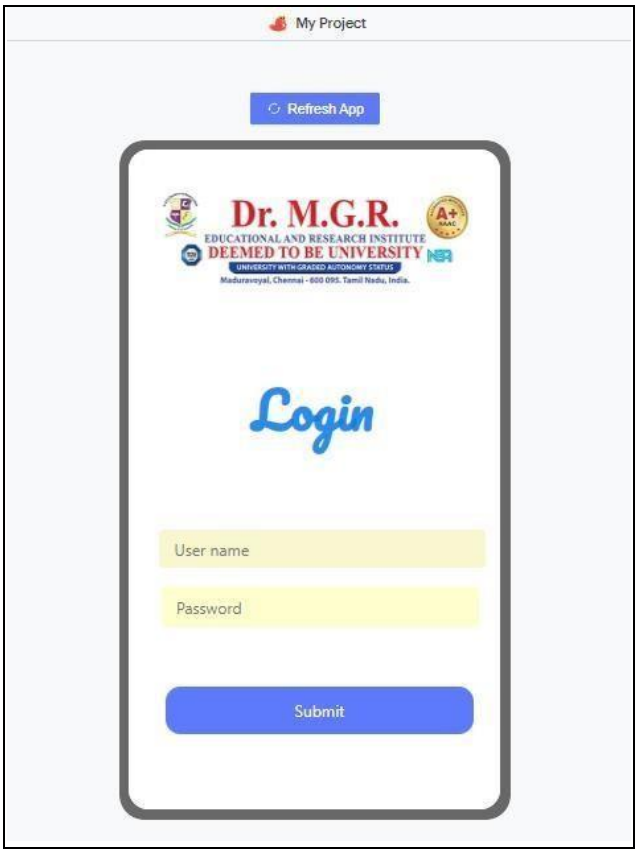
Step 5: Test the Application

1. **Live Test:**
   - Click on the "Live Test" button on the top right corner to test the app on your device or Thunkable Live app.
   - Enter a username and password, then click the "Submit" button to see if it navigates to the web viewer screen displaying the college website.

OUTPUT :

1. Create a new project in Thunkable.
2. Design the login screen with two text inputs and a submit button.
3. Create a second screen with a web viewer displaying **https://www.drmgrdu.ac.in**.
4. Add navigation logic to the submit button.
5. Test the application to ensure it works as expected.




My Project
Refresh App
Dr. M.G.R.
EDUCATIONAL AND RESEARCH INSTITUTE
DEEMED TO BE UNIVERSITY
Login
User name
Password
Submit


My Project
Refresh App
Blog
Dr. M.G.R
EDUCATIONAL AND RESEARCH INSTITUTE
MENU
News & Updates
Admissions Open 2024-25
Admission Enquiry!
Online Fee Payment
Online Degree Programmes
Chat with a STUDENT
Controller of Examinations
Hello! How can I help?

Result:

EX.6: CONDUCT END-TO-END USER RESEARCH - USER RESEARCH, CREATING PERSONAS, IDEATION PROCESS(USER STORIES, SCENARIOS), FLOW DIAGRAMS, FLOW MAPPING.

Aim:

Procedure :

1. Sign Up/Log In to Xtensio:

- Visit Xtensio.
- Create a free account or log in if you already have one.

2. Create a New Document:

- On your Xtensio dashboard, click on "Create New."
- Choose "Document" from the available options.

3. Select a Template:

- Browse through the templates provided by Xtensio.
- Select a template related to "Usability Testing" or "User Research" if available. If not, choose a general "Report" or "Business Document" template.

4. Customize the Document:

- **Title Page:**
  - Add a title for your report, e.g., "Usability Testing Report for [Project Name]."
  - Include the date, your name, and any relevant information.
- **Introduction:**
  - Briefly describe the purpose of the usability testing.
  - Explain the product or application being tested.
- **Objectives:**
  - Define the objectives of the usability test. What were you trying to achieve or find out?
- **Methodology:**
  - Describe the testing methods used (e.g., user testing, heuristic evaluation).
  - Include details about participant demographics, testing environment, and procedures.
- **User Personas:**

- Create and add personas based on the target users. Use Xtensio's persona template or design your own.

- **Testing Scenarios:**
  - Document the scenarios or tasks participants were asked to complete during testing.

- **Flow Diagrams:**
  - Insert flow diagrams to show the user journey through the application.
  - Use tools like Lucidchart or Draw.io to create flow diagrams if needed and upload them to Xtensio.
- **Findings:**
  - Present the findings from the usability testing. Include observations, issues identified, and user feedback.
- **Recommendations:**
  - Based on the findings, provide recommendations for improvements.
- **Conclusion:**
  - Summarize the key points of the usability testing and its impact on the project.

5. Add Visuals and Data:

- Enhance your report by adding visuals such as screenshots, graphs, and charts.
- Use Xtensio's built-in tools to add and format these elements.

6. Review and Edit:

- Carefully review the document for any errors or missing information.
- Make sure the layout is clear and professional.

7. Share or Export the Report:

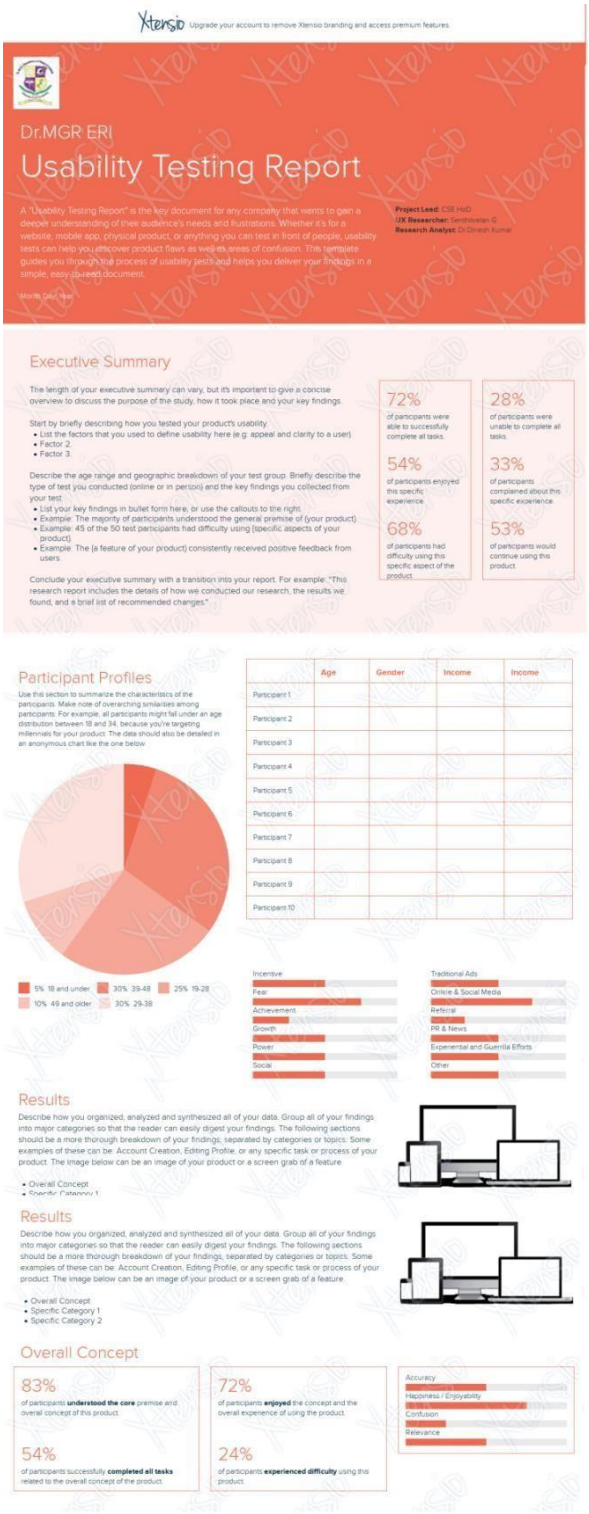
- Xtensio allows you to share the document via a link or export it as a PDF.
- Choose the option that best suits your needs.

8. Submit or Present:

- If this is for an experiment or assignment, ensure you follow any submission guidelines provided by your instructor.

OUTPUT :

Design:



Result:

EX.7:CREATE A SAMPLE PATTERN LIBRARY FOR THAT PRODUCT (MOOD BOARD, FONTS, COLORS BASED ON UI PRINCIPLES)

Aim:

Procedure:

1. Sign Up and Set Up

1. **Sign Up:**
   - Go to Milanote.
   - Create a free account or log in if you already have one.
2. **Create a New Board:**
   - Once logged in, click on the "+ New Board" button or use the "Create Board" option from the dashboard.

2. Create a Mood Board

1. **Add a Title:**
   - Click on the title area at the top of the board and name it "Mood Board."
2. **Upload Images:**
   - Click on the "Upload" button or drag and drop images that represent the visual style you envision for your product. These could be photos, illustrations, or inspirational images.
3. **Add Notes:**
   - Use the "Text" tool to add notes and explanations about why you chose each image or how they relate to the design principles. You can add descriptions or comments to explain the design direction.
4. **Organize the Layout:**
   - Arrange the images and notes in a way that visually communicates your design vision. Use Milanote's drag-and-drop interface to reposition and resize elements as needed.

3. Define Fonts

1. **Create a New Section:**
   - Add a new section to your board and title it "Fonts."

2. **Add Font Samples:**
    - Use the "Text" tool to add samples of the fonts you plan to use. Write out sample text using each font to show how they look in different sizes and weights.

3. **Include Font Details:**
    - Add notes about each font, such as its name, style, and usage guidelines. You can also provide links to where the fonts can be downloaded or purchased.
4. **Organize Fonts:**
    - Arrange the font samples and notes in a clear and organized manner so that it's easy to see and compare different fonts.

4. Create a Color Palette

1. **Add a New Section:**
    - Create another section on your board titled "Colors."
2. **Add Color Swatches:**
    - Use the "Color" tool to create and display color swatches. You can add color blocks by selecting colors from the color picker or entering hex color codes.
3. **Label Colors:**
    - Add labels to each color swatch to indicate its use in your design. For example, label colors as "Primary," "Secondary," "Background," "Text," etc.
4. **Include Color Codes:**
    - Add text notes with the hex codes or RGB values for each color to ensure consistency in your design.

5. Organize and Share

1. **Review and Adjust:**
    - Review the entire pattern library to ensure it accurately reflects the design principles and is well-organized. Make any necessary adjustments.
2. **Share the Board:**
    - Click on the "Share" button in the top right corner of the Milanote interface to generate a shareable link. You can also invite collaborators by entering their email addresses.
3. **Export (Optional):**
    - If you need a physical or offline copy, you can export the board as a PDF or image file. Click on the "Export" option in the menu.

OUTPUT :

Result: