



**ULAB**  
UNIVERSITY OF LIBERAL ARTS  
BANGLADESH

# **Smart Phone Application Development**

**CSE-488 (01)**

## **PROJECT REPORT**

### **SUBMITTED BY:**

**Mridul Ghosh (201014085)**

**Emtu Rani Paul (201014056)**

### **SUBMITTED TO:**

**Shakib Mahmud Dripto**

**Bachelor of Science, Computer Science, and Engineering (CSE)**

**University of Liberal Arts Bangladesh**

**Date of Submission: 30 August 2023**

## Introduction

The Voice Assistant App is a mobile application designed to provide users with a voice-activated assistant for various tasks. The app will allow users to interact with the assistant through voice commands and receive responses in real-time. The main function of this app is to convert speech into text. This app stands as a testament to the fusion of innovation and convenience in modern communication. By harnessing the power of voice recognition technology, this app revolutionizes the way we input text, offering a seamless transition from spoken language to written content. In a world where efficiency is paramount, this application offers a transformative solution that caters to diverse users, enhancing accessibility, productivity, and the overall communication experience.

## Features

### 1. User Registration

- a. Signup
- b. Verification
- c. Login

### 2. User Management Page

- a. Edit Profile
- b. Delete Profile
- c. Voice input
- d. Record History

### 3. Admin Dashboard

- a. User Management
- b. Reports count
- c. Downloads count
- d. Viewer count
- e. Setting

### 4. About Options

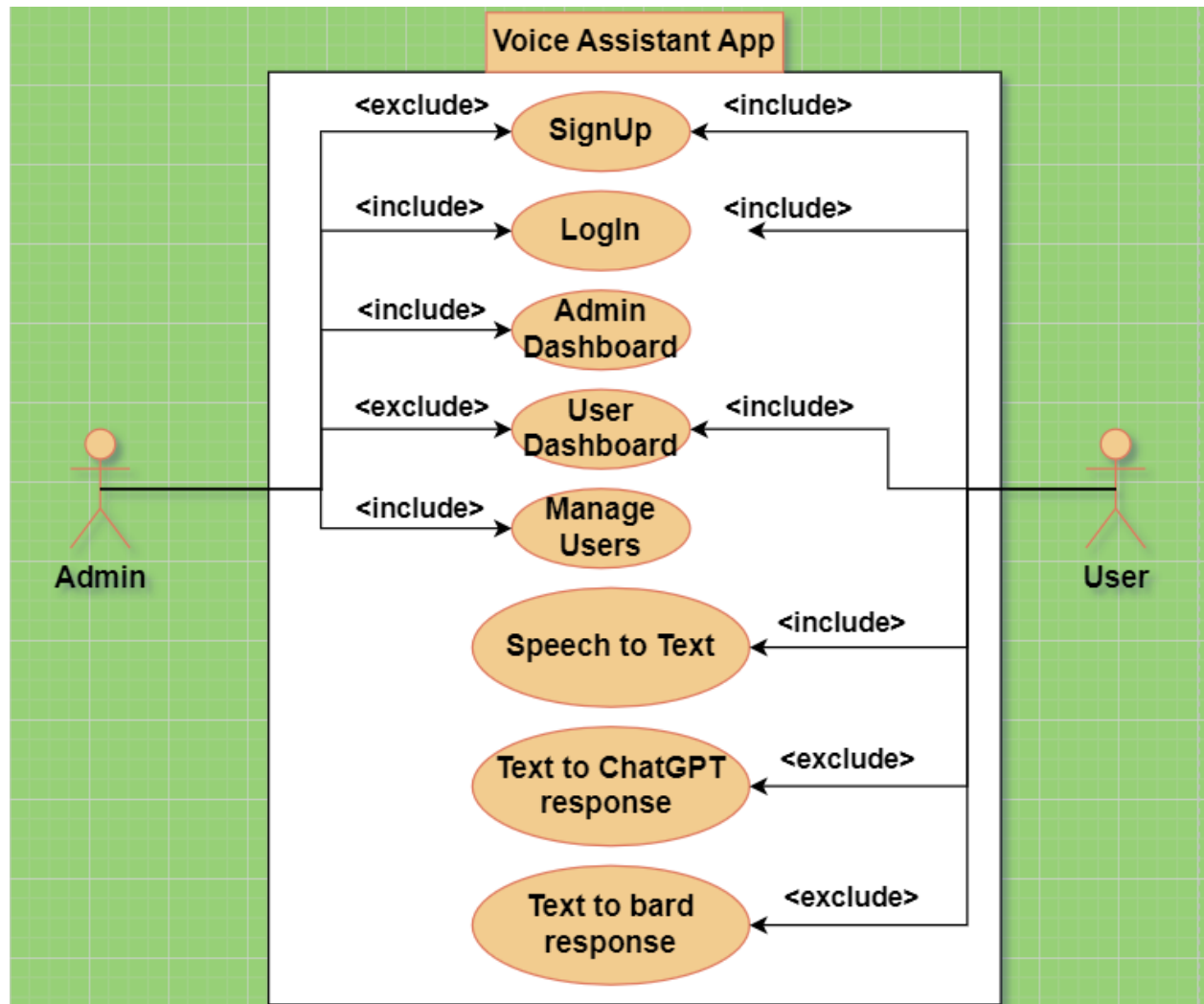
- a. Version
- b. Author
- c. Company Details

## Table of Contents for a SRS Document:

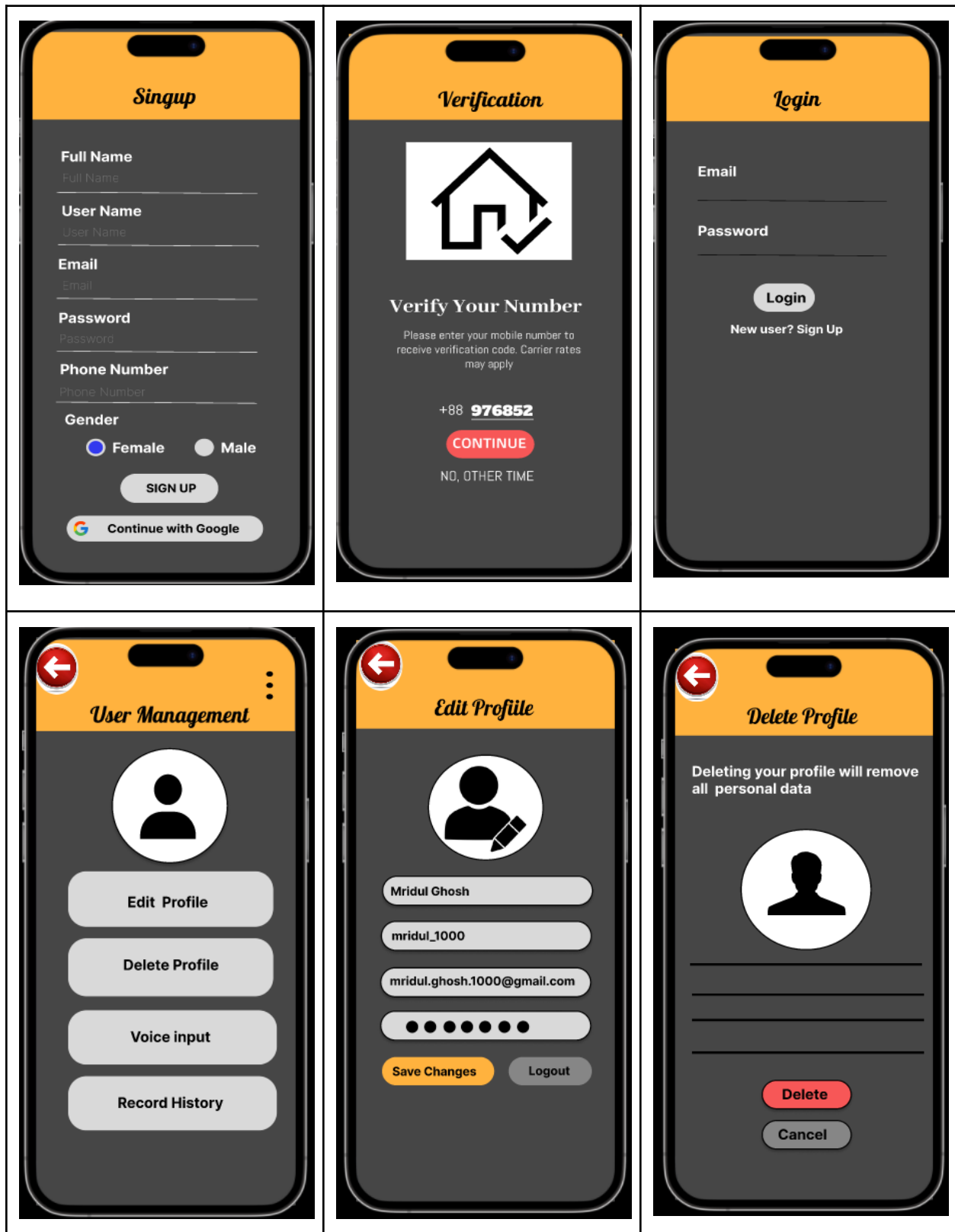
<b>1. Introduction</b>	
1.1 Purpose	<ul style="list-style-type: none"><li>a. Accurate speech-to-text conversion</li><li>b. Voice commands and receive responses in real time.</li><li>c. Enable hands-free operation</li><li>d. Efficiency and productivity</li><li>e. Seamless communication</li></ul>
1.2 Intended Audience  & Reading Suggestions	<ul style="list-style-type: none"><li>a. Individuals with physical disabilities or motor impairments</li><li>b. Multitaskers and busy professionals</li><li>c. Users with limited typing skills</li><li>d. Anyone seeking convenience and efficiency</li></ul> <ul style="list-style-type: none"><li>a. Proper guidelines for voice apps</li><li>b. Security and Privacy</li></ul>
1.3 Project Scope	<ul style="list-style-type: none"><li>a. Speech Recognition</li><li>b. Real-time Processing Language Support</li><li>c. Platform Compatibility</li></ul>
1.4 References	<a href="https://ijarcce.com/wp-content/uploads/2023/03/IJARCCE.2023.12324A.pdf">https://ijarcce.com/wp-content/uploads/2023/03/IJARCCE.2023.12324A.pdf</a>
<b>2. Overall Description</b>	
2.1 Product Perspective	<ul style="list-style-type: none"><li>a. Seamless Speech-to-Text Conversion</li><li>b. User-Friendly Interface</li><li>c. Continuous Improvement and Update</li></ul>
2.2 Product Features	<ul style="list-style-type: none"><li>a. User's voice input</li><li>b. Speech Recognition</li><li>c. Generate Response</li><li>d. Personal Assistant Logic and Responses</li></ul>
2.3 User Classes And Characteristics	<ul style="list-style-type: none"><li>a. Individuals with Disabilities</li><li>b. Non-Native Speakers</li><li>c. Busy Professionals and Multitaskers</li><li>d. General Users Seeking Convenience</li></ul> <ul style="list-style-type: none"><li>a. Accurate Speech Recognition</li><li>b. Real-time Transcription</li><li>c. Language Support</li><li>d. Privacy and Data Security</li></ul>

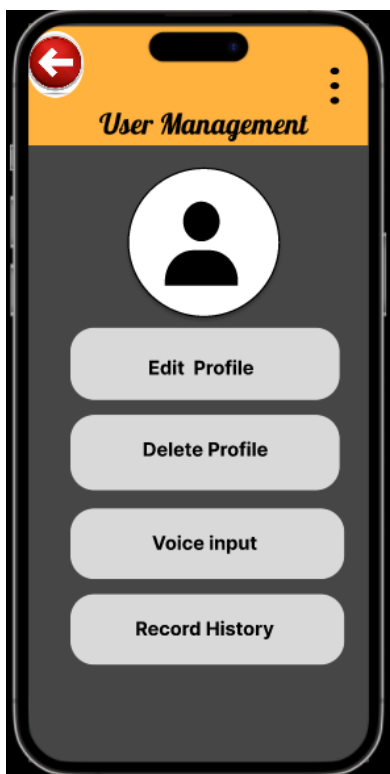
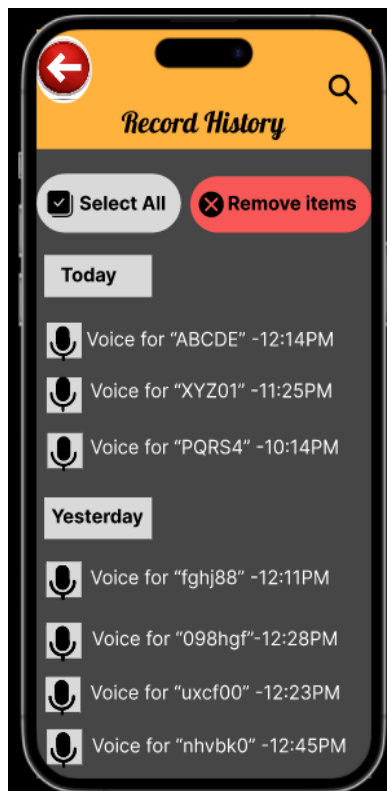
2.4 Operating Environment	<ul style="list-style-type: none"> <li>a. Mobile Devices</li> <li>b. Web Browsers</li> <li>c. Desktop and Laptop Computers</li> <li>d. Cloud Integration</li> <li>e. Voice Assistant Integration</li> </ul>
2.5 Design and Implementation Constraints	<ul style="list-style-type: none"> <li>a. User Interface</li> <li>b. Speech Recognition and Language Support</li> <li>c. Feedback and Confirmation</li> <li>d. Customization Options</li> </ul> <ul style="list-style-type: none"> <li>a. Network Connectivity</li> <li>b. Privacy and Data Security</li> <li>c. Platform and Device Compatibility</li> </ul>
2.6 Assumptions and Dependencies	<ul style="list-style-type: none"> <li>a. Internet Connectivity</li> <li>b. Microphone Access</li> </ul>
<b>3. System Features</b>	
3. Functional Requirements	<ul style="list-style-type: none"> <li>1. Speech Recognition</li> <li>2. Natural Language Processing (NLP)</li> <li>3. Voice Commands</li> <li>4. Multilingual Support (basically, based on Bangla)</li> <li>5. Personalization</li> <li>6. Context Awareness</li> <li>7. Error Handling</li> <li>8. Integration with Third-Party Services</li> <li>9. Hands-free Operation</li> <li>10. Continuous Improvement</li> <li>11. Language Translation</li> </ul>
<b>4. Nonfunctional Requirements</b>	
4.1 Performance Requirements	<ul style="list-style-type: none"> <li>a. Adaptability</li> <li>b. Demonstrate high accuracy and efficiency</li> </ul>
4.2 Safety Requirements	<ul style="list-style-type: none"> <li>a. Data Privacy and Security</li> <li>b. Confidentiality</li> <li>c. Error Handling and Feedback</li> <li>d. User Consent and Control</li> </ul>
4.3 Security Requirements	<ul style="list-style-type: none"> <li>a. Data Encryption</li> <li>b. User Authentication</li> <li>c. Providing clear privacy policies</li> <li>d. Access Control</li> </ul>

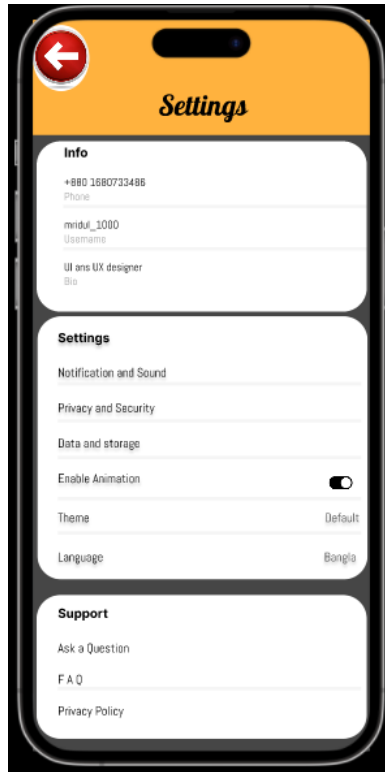
## Use Case Diagram



## Outline









## App Demo

Welcome to Transcribo

Enter Username

Enter Email

Enter Password

Signup

Already Signed Up? Login

Welcome to Transcribo

Enter Email


Enter Password

Login

Don't have an account? Signup

← Confidence: 100.0%

Press the button and start speaking



## Conclusion

In conclusion, the Speech to Text App represents a significant stride in the realm of efficient communication and productivity. By leveraging advanced voice recognition technology and the power of Dart programming, the app seamlessly translates spoken words into written text. Its impact extends beyond convenience, catering to accessibility needs and streamlining various tasks. The app's real-time conversion, intuitive interface, and cross-platform compatibility underline its potential to reshape how we interact with devices. The successful realization of this project underscores the collaborative synergy between technology and linguistic understanding. As we look ahead, the Speech application, integration possibilities, and advancements in Natural Language processing By eliminating the barrier between spoken expression and textual communication, this innovation exemplifies the evolution of technology to serve and augment human capabilities in an increasingly digital world.