TEXT 2 SPEAK

JUST TYPE & ENJOY

Property Features

- TEXT
- SPEAK
- ARTIFICIAL INTELEGENCE
- GUIDE
- PLAY
- UNLIMITED ENTERTAINMENT
- OBJECT

Get in Touch

+91-7567770162
+91-78782711231
text2speak@gmail.com
www.text2speak.com

Report On

Text2Speak

Project Id :

17

By

Kukadiya
Jaypal
Rameshbhai

&

Bavaliya
Vishal
Rameshbhai

Under Guidance Of

Prof. Bharat Sojitra

Submitted to

Department Of Computer Science
Shree Saurashtra College Of
Management And Computer Science -
Atkot

6Th Semester
Year of Submission
2023-24
Saurashtra University Rajkot - 360001

Index of Project

Declaration

I**, Kukadiya Jaypal Rameshbhai,** along with my project partner **Bavaliya Vishal Rameshbhai,** declare that the project report titled "Text2Speak: An Platform for convert Text into speech "Has been prepared by us as a part of our academic program at Saurashtra College of Management and Computer Science, Atkot, affiliated with Saurashtra University, Rajkot.

This report represents our original work and research conducted under the guidance of our project guide, BharatSir Sojitra. All sources of information, data, and references used in this report have been duly acknowledged and cited in accordance with academic standards. we affirm that this project report has not been submitted previously for any other degree or examination.

Any similarities with other works are purely coincidental. we take full responsibility for the content, analysis, and conclusions presented in this report. In case of any questions or concerns regarding the authenticity of this work, we are ready to provide further clarification or evidence.

Thank You
Kukadiya Jaypal Rameshbhai
&
Bavaliya Vishal Rameshbhai

Acknowledgement

We would like to express our heartfelt gratitude to all those who have contributed to the successful completion of our project, "Text2Speak".

First and foremost, we extend our sincere thanks to our project guide, Bharatsir Sojitra, for his unwavering support, expert guidance, and invaluable insights throughout the project. His mentorship played a pivotal role in shaping the project's direction and success. We are deeply thankful to the faculty members of Saurashtra College of Management and Computer Science for providing us with a conducive academic environment and access to resources that were crucial for our project's development.

We would like to express our appreciation to our project partner, Bavaliya Vishal Rameshbhai for his dedication, collaboration, and tireless effort in bringing this project to fruition. Our partnership was instrumental in overcoming various challenges.

Finally, we would like to thank Saurashtra University, Rajkot, for providing us with the opportunity to undertake this project and expand our knowledge and skills.

This project would not have been possible without the collective efforts, support, and contributions of these individuals and institutions. We are truly grateful for their involvement.

Preface

This project report is prepared for the project completed during the course of BCA, 6th Semester undertaken at Shree Saurashtra College of Management And Computer Science–Atkot.

It is with great pleasure and a sense of accomplishment that we present this project report titled "Text2Speak".

This project represents the culmination of our efforts during our academic journey at Saurashtra College of Management and Computer Science, Atkot, under the esteemed banner of Saurashtra University, Rajkot.

The primary objective of this project is to design and develop a T2S system capable of converting written text into spoken language. Throughout the course of this endeavor, we delved into various aspects of speech synthesis, including fundamental concepts, algorithms, and implementation strategies. Leveraging the versatility and accessibility of the Python programming language, we aimed to create a robust and user-friendly T2S solution.

This report outlines the meticulous planning, tireless effort, and innovative thinking that have gone into the development of Text2Speak.

It is our hope that this report serves as a valuable resource for individuals interested in learning about Text2Speak technology and its implementation using Python. We also extend our gratitude to our mentors, peers, and all those who supported us throughout this project.

As students of computer science and management, this project has provided us with a valuable opportunity to apply our theoretical knowledge to a real-world scenario. We delved into the intricacies of system development, software engineering, and project management, all while keeping the needs of our potential users at the forefront.

Our project guide, Bharatsir Sojitra, played a pivotal role in steering us in the right direction, offering invaluable guidance, and challenging us to push our boundaries.

Project-Profile

Developed At	SHREE SAURASHTRA COLLEGE OF MGT & COM. SCE.–ATKOT
Developed By	Kukadiya Jaypal Rameshbhai & Bavaliya Vishal Rameshbhai
Project Title:	Text2Speak
Operating System:	Microsoft windows 10
Web Server:	SQLite
Web Browser:	Google Chrome ,Microsoft Edge, Opera, Fire Fox
Editor:	Visual Studio Code
Back End:	Python
Languages:	HTML, CSS, JavaScript ,Bootstrap
Project Guide:	Professor BharatSir Sojitra
Submitted To:	SHREE SAURASHTRA COLLEGE OF MGT & COM. SCE.–ATKOT.

Technical Feasibility

The system development process will meet the submission deadline three months provided by the Saurashtra university. The following is a breakdown of the activities as probable to be carried out:

01'December	Problem definition, data collection, problem description, system analysis, interpretation of collected data.
30'December	System design and construction.
14'February	System testing and debugging
5'March	Submission to the Saurashtra University.

Economical Feasibility

A feasibility study was carried out to determine the benefits of the current manual system and the proposed computerized system. The system is indeed feasible.

Hardware	Features	Cost
Laptop	Acer	30,500
Processor	Intel core i5	7,000
Hard drive	500 GB	1,000
Ram	8 GB	2,000
System	Windows 10	10,000
	Total	50,500

Introduction of Our Website

➢ Text2Speak - Background:

Text2Speak, born from the vision of Kukadiya Jaypal Rameshbhai and Bavaliya Vishal Rameshbhai, In today's digital age, the ability of machines to understand and interact with human language is increasingly becoming indispensable. Text2Speak (T2S) technology plays a pivotal role in this landscape, enabling computers to convert written text into audible speech. From enhancing accessibility for individuals with visual impairments to powering virtual assistants and interactive applications, T2S systems have a wide range of applications across various domains.

➢ Scope:

This project encompasses several key components, including understanding the fundamentals of speech synthesis, exploring different methods for converting text to speech, and implementing a user-friendly interface for interacting with the T2S system. Throughout the development process, we have focused on achieving high-quality speech output that closely resembles natural human speech while also prioritizing factors such as speed, efficiency, and ease of use.

➢ A Vision for Text2Speak:

Our vision for this Text2Speak (T2S) project is to create an innovative and versatile system that empowers individuals and enhances human-computer interaction through natural language processing. We envision a T2S solution that not only converts written text into high-quality speech but also adapts to diverse user needs and preferences.

➢ Significance Of The Text2Speak :

The successful implementation of a Text2Speech system in Python holds significant implications for various industries and domains, including assistive technology, education, entertainment, and human-computer interaction. By democratizing access to speech synthesis technology and fostering innovation in this field, our project aims to contribute to the advancement of inclusive and accessible computing environments.

Objective

☐ Main Goals Of Text2Speak :

- **Accessibility:** We aim to make our T2S system accessible to all individuals, including those with visual impairments, by providing a seamless and intuitive interface for converting text into speech. Accessibility features will be integrated to ensure inclusivity and usability for users with varying needs and abilities.

- **Customization:** Recognizing the importance of personalization, our T2S system will offer extensive customization options, allowing users to adjust speech parameters such as voice pitch, speed, and accent to suit their preferences. By enabling users to tailor the speech output to their liking, we aim to enhance user satisfaction and engagement.

- **Naturalness:** Our goal is to achieve speech output that closely resembles natural human speech in terms of clarity, intonation, and expressiveness. Leveraging advanced speech synthesis techniques and machine learning algorithms, we aspire to create a T2S system capable of generating lifelike speech that is indistinguishable from human speech in many contexts.

- **Versatility:** We envision our T2S system being versatile and adaptable to a wide range of applications and scenarios. Whether it's powering virtual assistants, interactive learning platforms, or assistive technologies, our T2S solution will be designed to seamlessly integrate into diverse environments and meet the evolving needs of users across different domains.

- **Scalability:** With scalability in mind, our T2S system will be built using modular and scalable architecture, allowing for easy expansion and integration of new features and functionalities. As technologies and user requirements evolve, our T2S solution will be agile and flexible enough to accommodate future enhancements and advancements in the field of speech synthesis.

Functionality

Text2Speak also Provide a text input area where users can type or paste the text they want to convert to speech. Allow users to choose from different voices for the speech synthesis. Offer a variety of voices with different accents and characteristics.

Provide a slider or input field to adjust the speed of speech synthesis. Users may want to speed up or slow down the speech based on their preferences. Implement controls to pause and resume speech playback. This allows users to pause the speech if they need to take a break or focus on other tasks.

Client Side

- Login / Registration
- Home
- View Interface
- Type Text
- Convert into Speech
- Increase Speed of Type
- Change Style of Speech
- Listen The Speech
- Clear The Textbox
- Logout

Admin Side

- Login
- Manage User
- Modify Interface
- Edit Features
- View Massage
- Edit Profile

Features

☐ User-Facing Features:

➢ User Registration and Login:

Allow users to create accounts or log in via email or social media profiles. Enable secure password management and account recovery options.

➢ View Main Interface:

Allow users to view main interface of our web application Text2Speak and can convert text into speech.

➢ Type Paragraph:

User can Type paragraph into text box and can also paste any copy of paragraph to convert their text or paragraph into speech.

➢ Convert Text into Speech:

User can type or paste copy paragraph into textbox and convert it into speech and also play it and listen.

➢ Change The Speak Style:

User can type or paste copy paragraph into textbox and convert it into speech and also play it and listen and also can change the style of speech into male and female.

➢ Change The Speed Of Speech:

User can type or paste copy paragraph into textbox and convert it into speech and also play it and listen and also can change the style of speech into male and female and also can change the speed of speech.

➢ Listen The Speech:

Allow users to listen their text or paragraph what they type or paste in text box and can many things.

☐ Administrator Features:

➢ Login:

Admin can login into admin side and get access for admin panel by simply using static username and password.

➢ Modify Interface:

Admin can modify the main interface of the application by static themes.

➢ User Management:

Administer user accounts and roles. Handle user data, including addresses and contact information.

➢ Edit Features:

Admin can give more features to their customer or user and can add more functionality into web application.

➢ Content Management:

Manage website content, including banners, promotions, and announcements. Update seasonal offerings and special promotions.

➢ Analytics and Reports:

Generate reports on sales, user behavior, and website performance. Utilize data insights for business decision-making.

➢ View Massage:

Admin can view massage from admin panel. Massage are send by users from the client side contact-us features.

System Development Life Cycle(SDLC)

1.Requirement gathering
2.System Analysis
3.Designing
4.Coding
5.Testing
6.Implementation
7.Documentation

The System Development Life Cycle Method is Classically thought of as the set of activities that analysts, designer, and users carry out to develop and implement an information system. This method consists of seven steps. In most business situations the activities are all closely related, usually inseparable, and even the order of the steps in the see activities may be difficult to determine.

Different parts of the project can be in various phases at the sametime, with some components undergoing analysis while others are at advance design stages.

The system development life cycle model was developed as a structured approach to information system development that guides all the processes involved from an initial feasibility study through to maintenance of the finished application.

1.Requirement gathering

1. **Identify Stakeholders:**
2. **Conduct Stakeholder Interviews:**
3. **User Personas:**
4. **Define Use Cases:**
5. **Functional Requirements:**
6. **Non-Functional Requirements:**
7. **Prioritize Requirements:**
8. **Documentation:**

➢ Functional Requirements:

- First we collected all the information about our project.
- We took basic knowledge from our classmates, youtube and tutorials.
- Python installation and Set Up.
- Text input area for entering text to be converted to speech.
- Voice selection dropdown for selecting the voice of the speech.
- Speed and pitch adjustment sliders. Speed and pitch adjustment sliders.
- Divided the min to category called.

➢ Non-Functional Requirements:

- Response time for text-to-speech conversion.
- Scalability to handle a large number of concurrent users.
- Compatibility with different web browsers and devices.
- Accessibility features for users with disabilities.
- Data security and privacy measures for handling user data.

2. Analysis

1. **Market Analysis:**
2. **User Analysis:**
3. **Technical Analysis:**
4. **Resource Analysis:**
5. **Risk Analysis:**
6. **Regulatory Compliance:**

First we visited 4 websites and took information about it what things a website will need.

- We Creating This project using following site:

- https://voicemaker.in
- https://muruf.ai
- https://elevenlabs.io
- www.speechify.com

➢ Admin Side :-

In admin side there will be 3 options given below.

- Manage User
- View Massage
- Modify Interface
- Edit features

Admin can login into admin side and get access for admin panel by simply using static username and password. Admin can give more features to their customer or user and can add more functionality into web application. Manage website content, including banners, promotions, and announcements. Update seasonal offerings and special promotions. Generate reports on sales, user behavior, and website performance. Utilize data insights for business decision-making.

- **Client Side :-**

Allow users to create accounts or log in via email or social media profiles. Enable secure password management and account recovery options. User can Type paragraph into text box and can also paste any copy of paragraph to convert their text or paragraph into speech. User can type or paste copy paragraph into textbox and convert it into speech and also play it and listen. User can type or paste copy paragraph into textbox and convert it into speech and also play it and listen and also can change the style of speech into male and female.

3. Design

We had designed website which looks very attractive to the customers that's point we remind and make good design.

4. Coding

We start building the entire system by writing code in the particular language chosen earlier.

5.Testing

We Test best of our both client and admin each and every page in deep.

6.Implementation

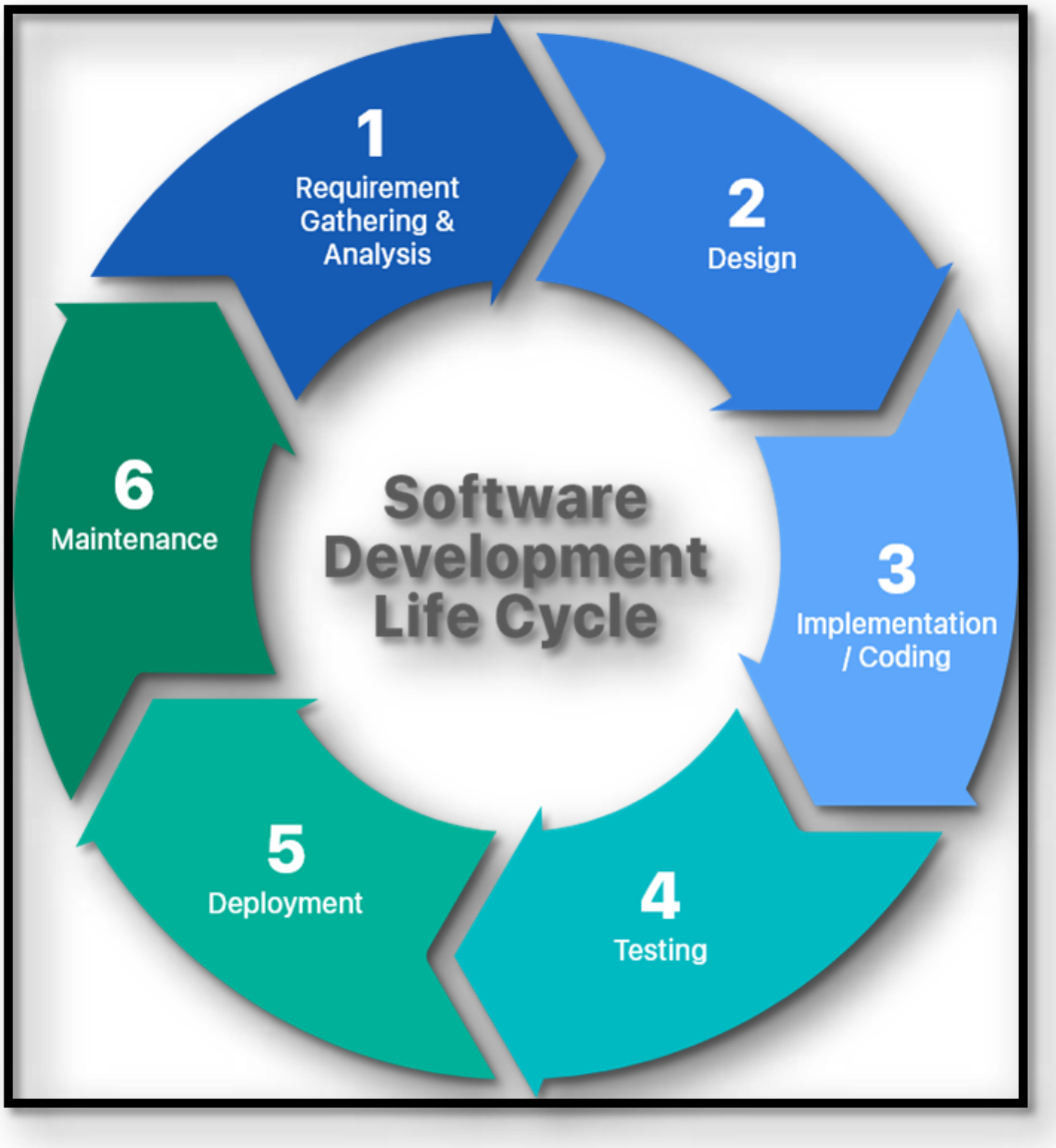
In this all the things we did before we have to implement the min the website.

7. Documentation

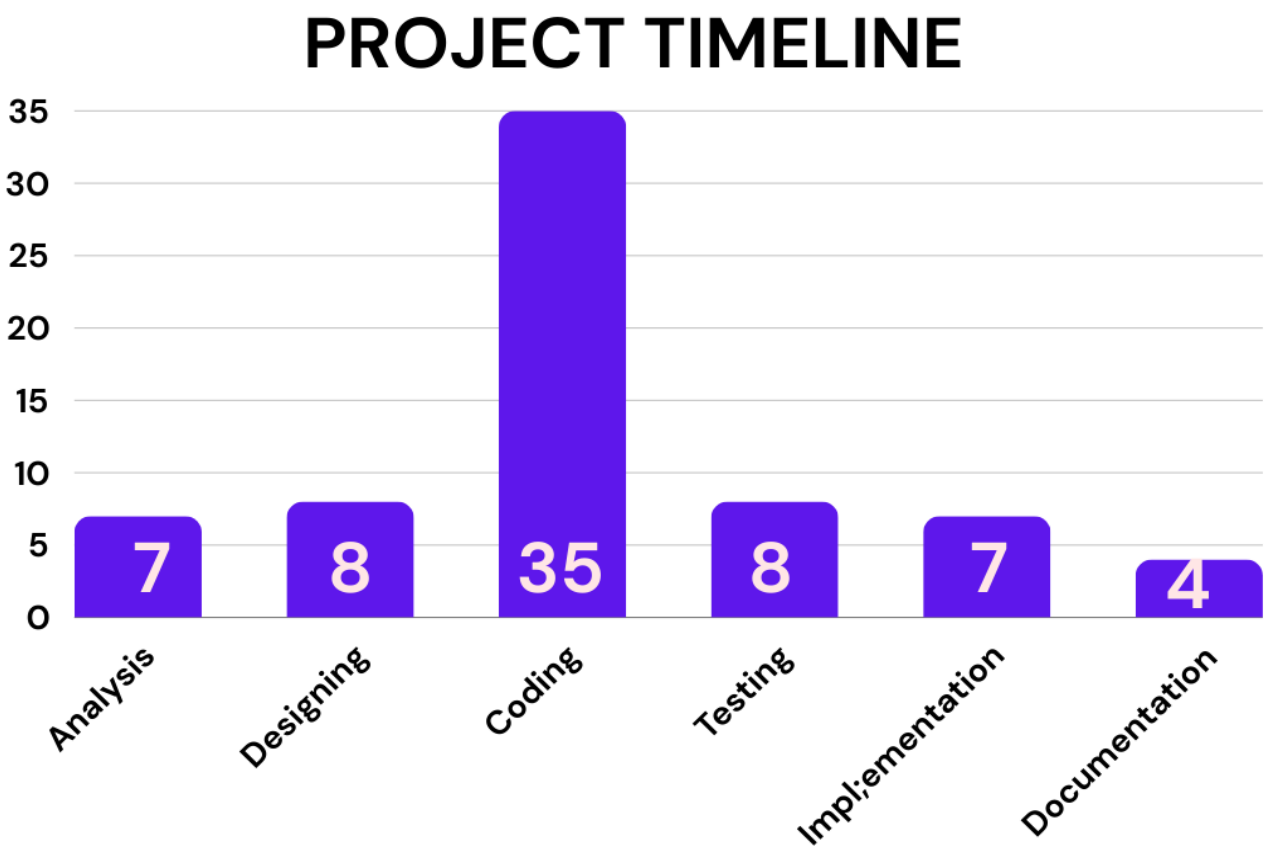
After the project is completed entirely we have to make a document about the project.

SDLC Diagram

The system development life cycle method is classically thought of as the set of activities that analysts, designer and users carry out to develop and implement an information system.



Project Timeline



SR.NO.	WORKNAME	DATE	TOTALDAYS
1	Requirement Gathering	01/12/2023	10
2	System Analysis	13/12/2023	07
3	Designing	20/12/2023	08
4	Coding	30/12/2023	35
5	Testing	14/02/2024	08
6	Implementation	22/02/2024	07
7	Documentation	29/02/2024	04

Figure:1

Data Flow Diagram

- **0 level DFD :-**

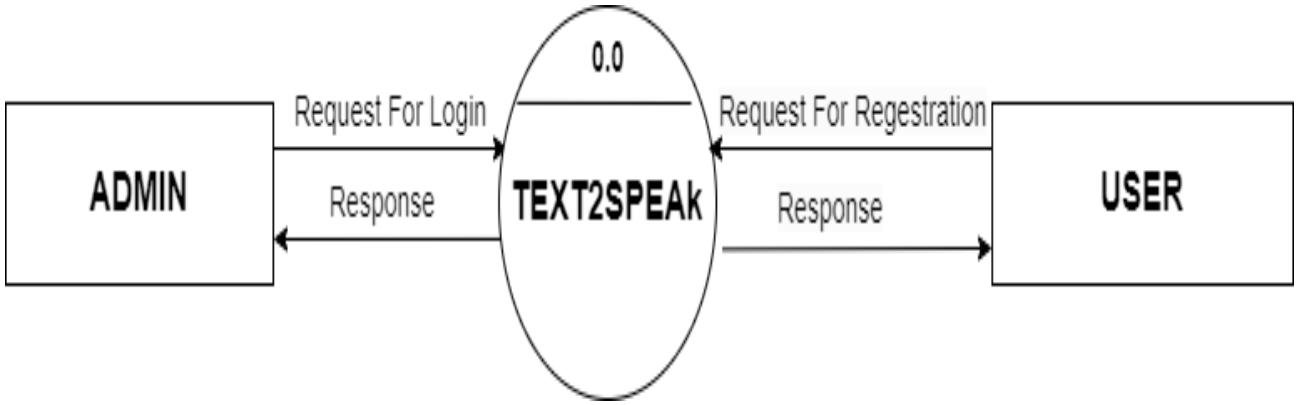


Diagram: 1.0 level DFD

➢ **1ST level DFD:-** (User Side)

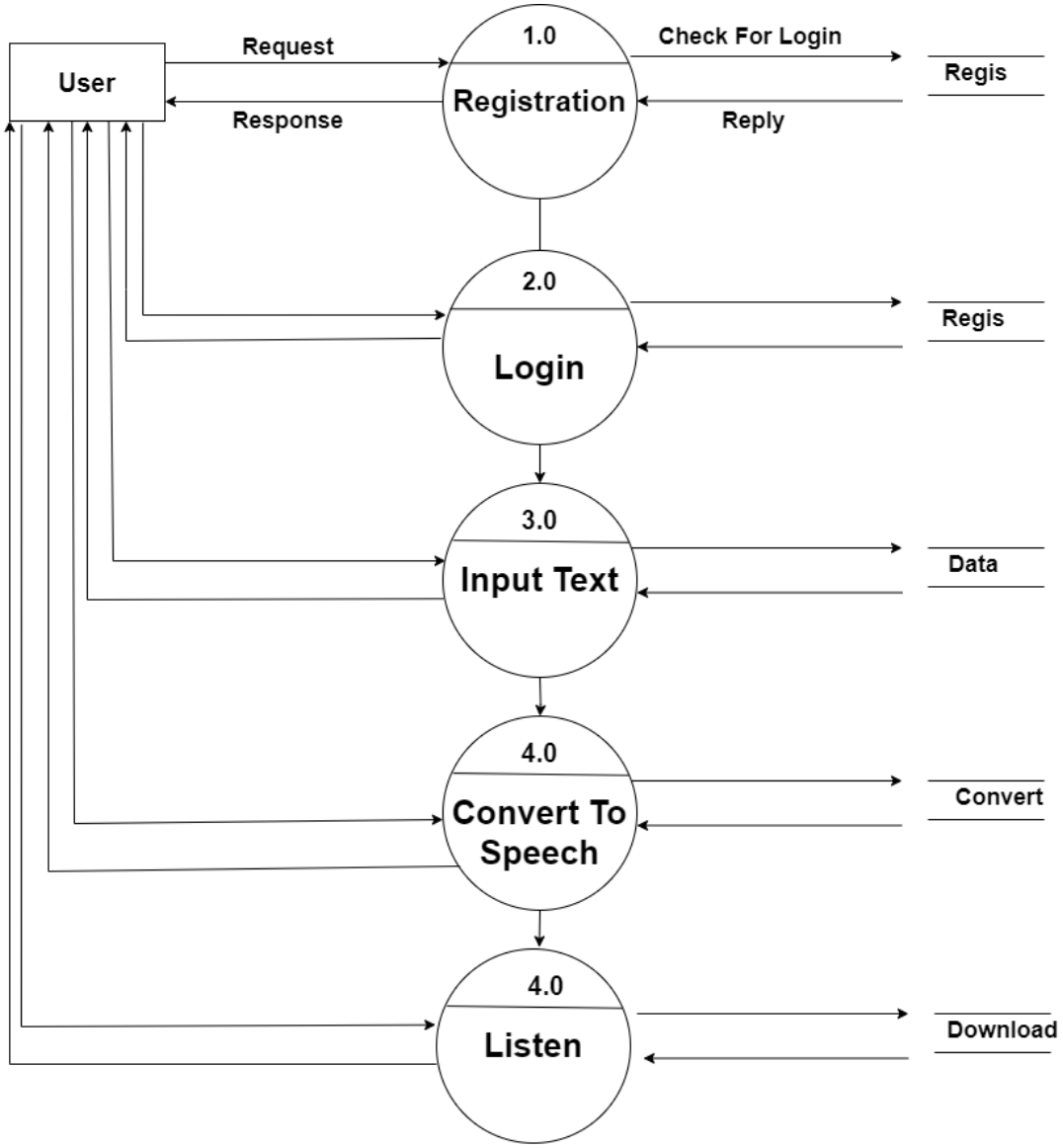


Diagram: 2.1 Level DFD (User)

➢ **1ST level DFD** :- (Admin Side)

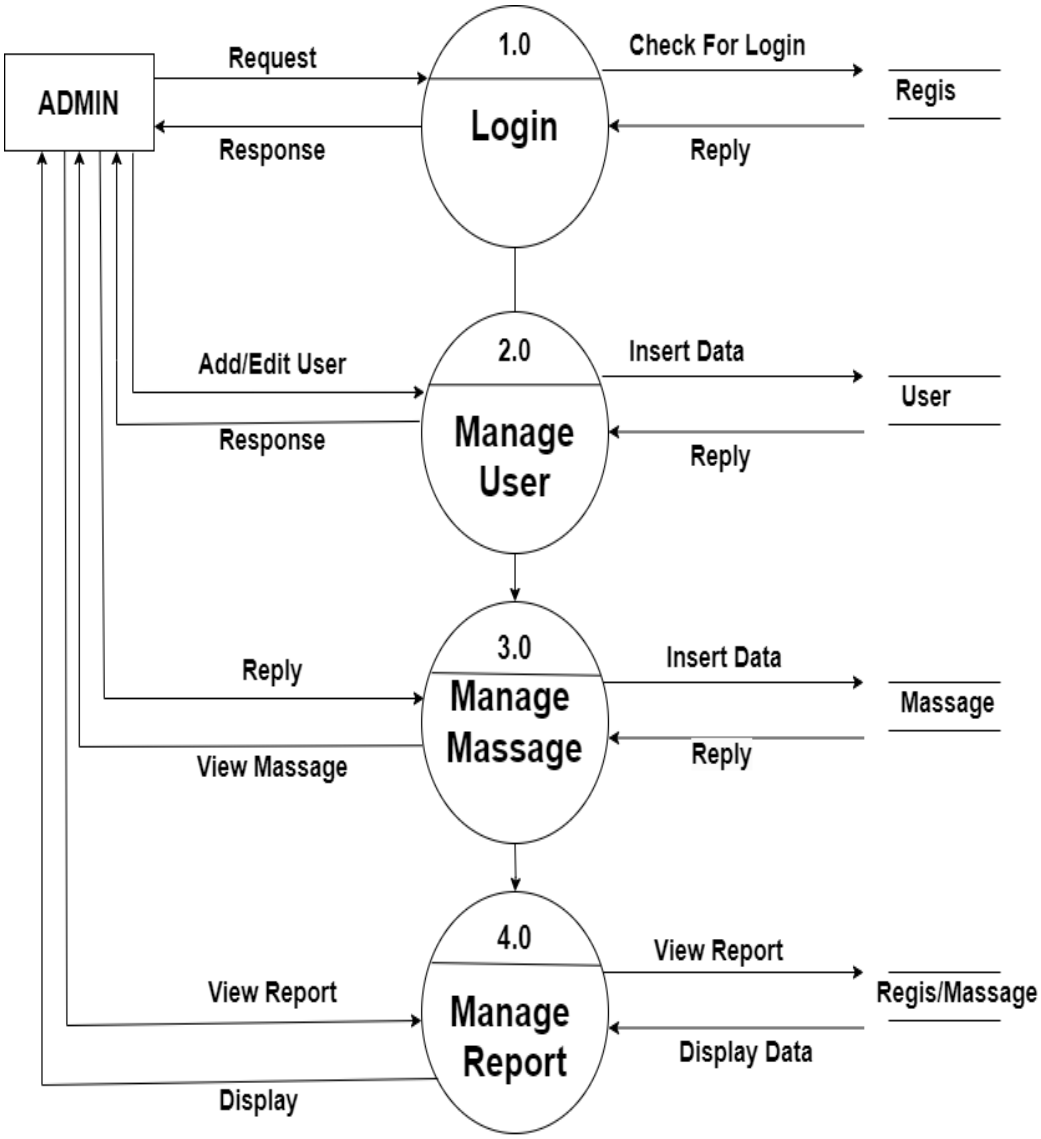


Diagram: 3.1 Level DFD(admin)

➢ **2nd level DFD (3.0)** :- (Admin Side)

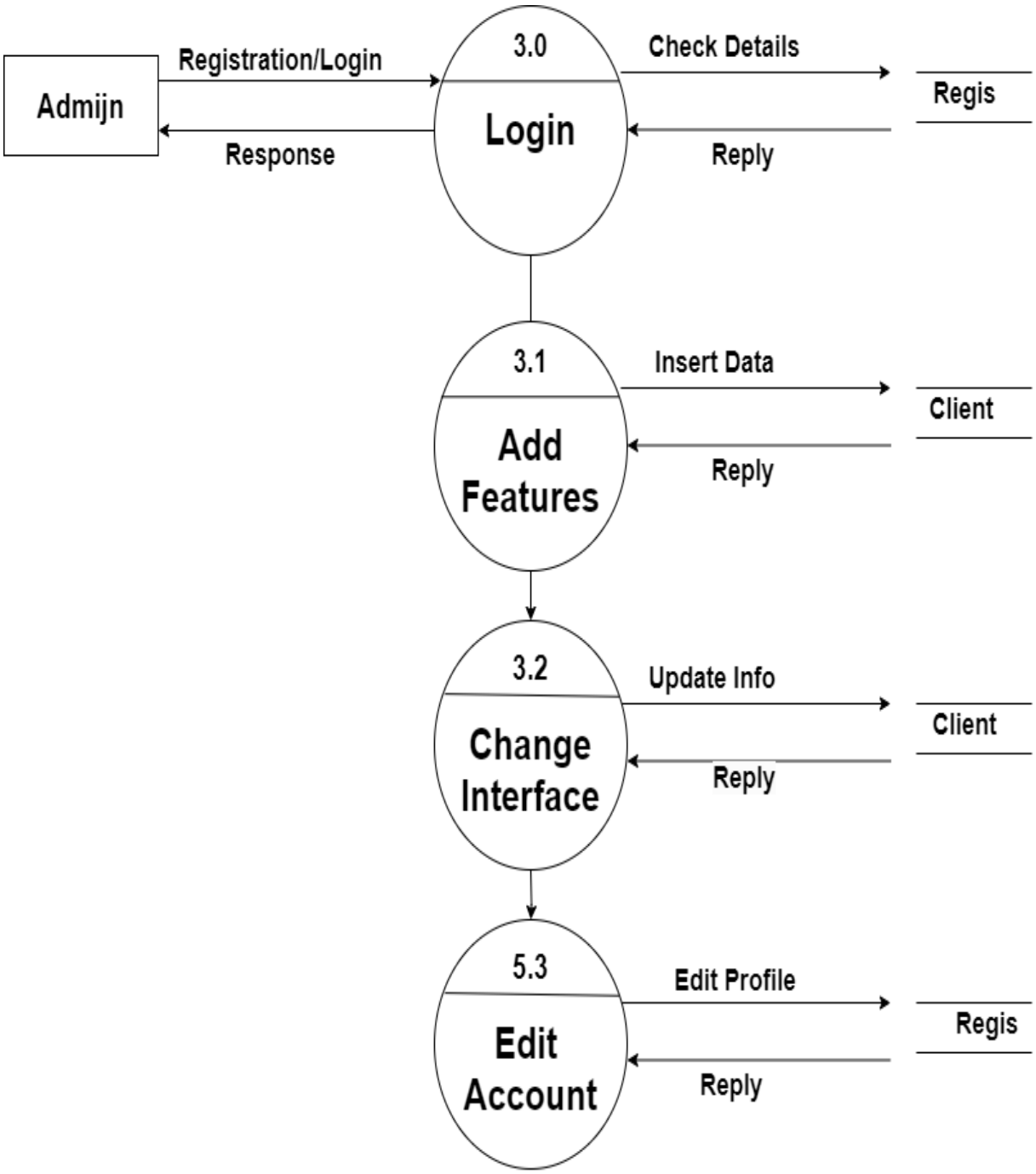


Diagram: 4. 2nd Level DFD (3.0) (admin)

➢ **2nd level DFD (4.0)** :- (User Side)

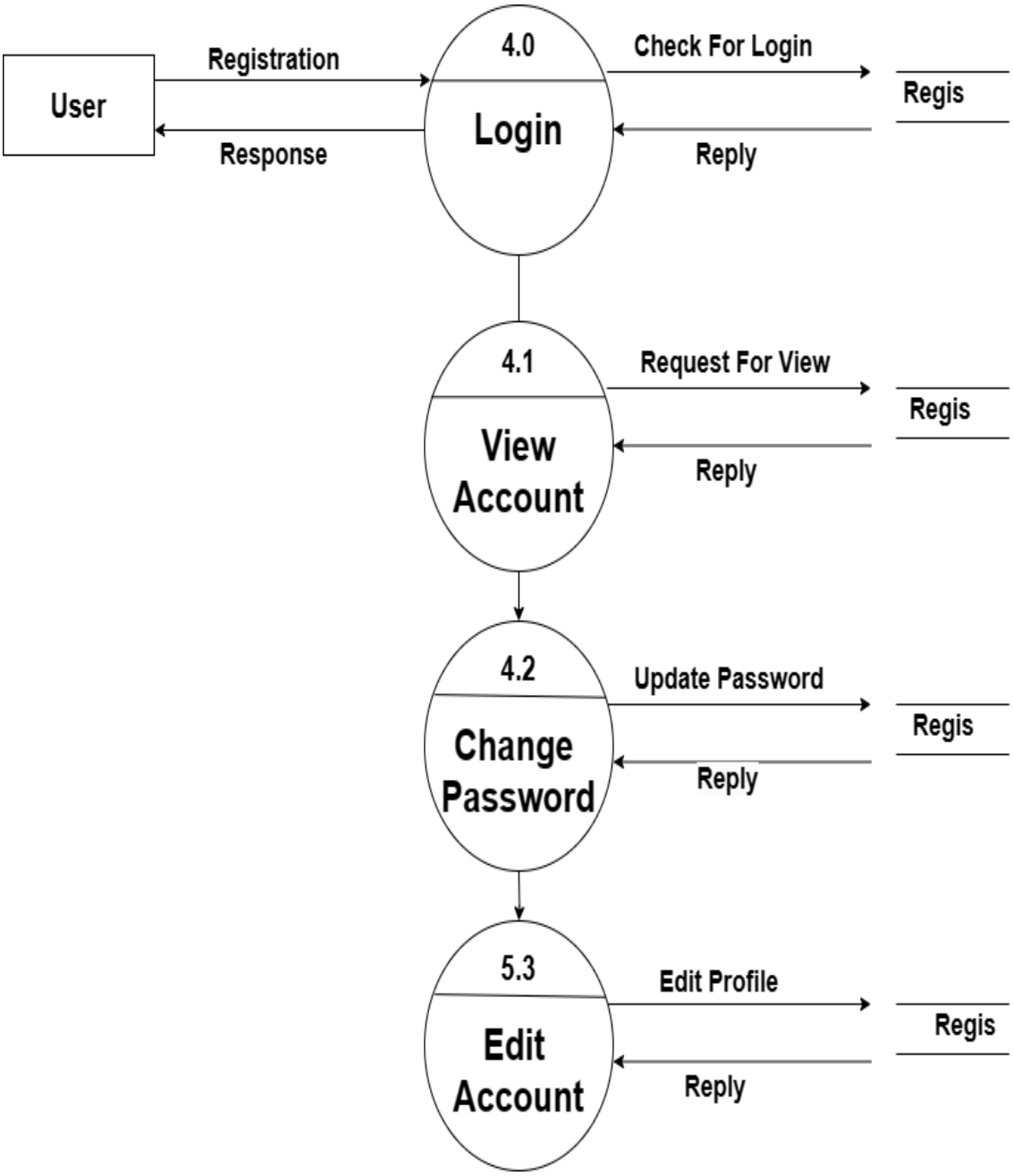


Diagram: 5. 2nd Level DFD(4.0)(User)

➢ **2nd level DFD (5.0)** :- (Admin Side)

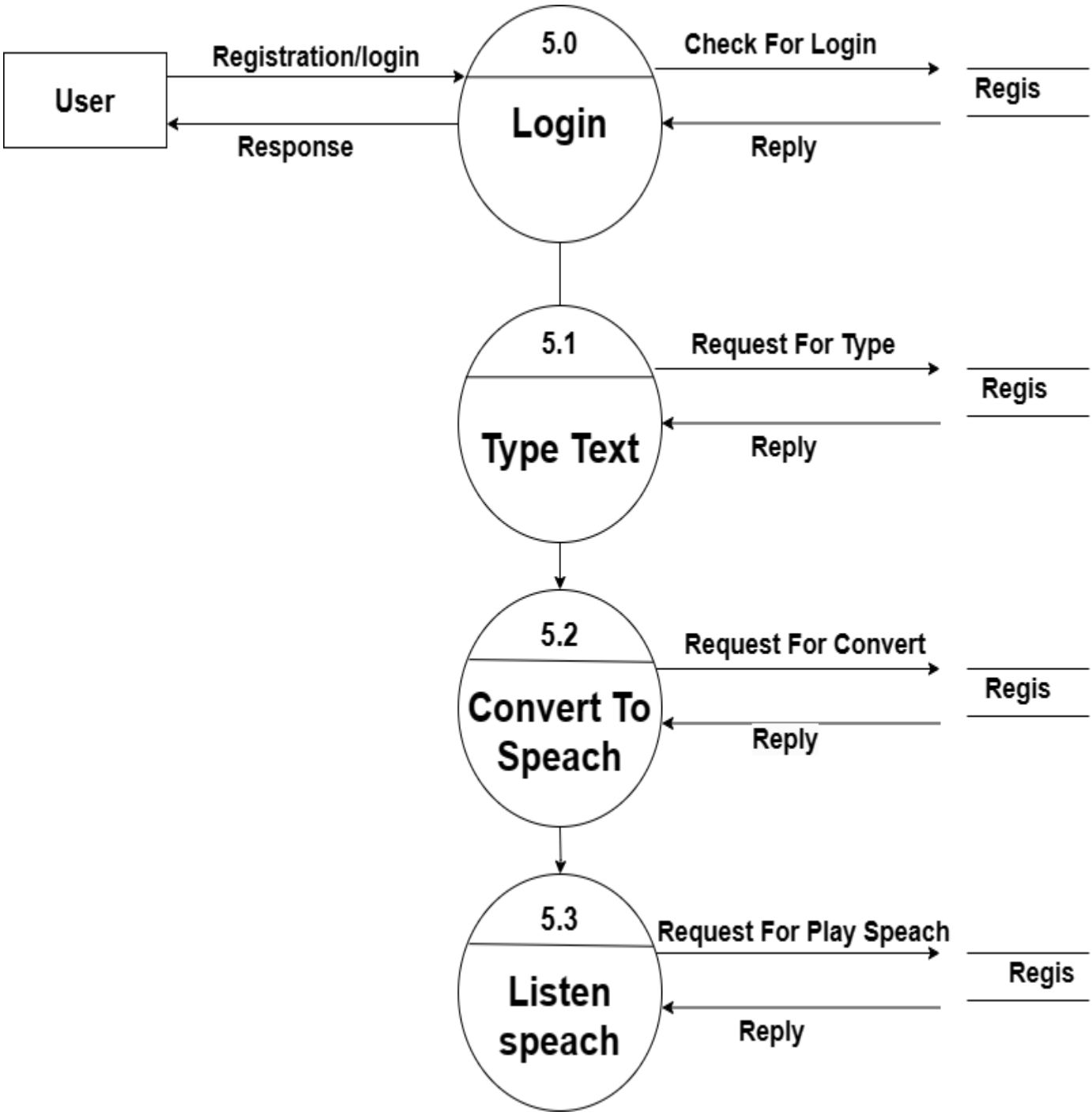


Diagram: 6. 2nd Level DFD (5.0) (Admin)

➢ ER Diagram :-

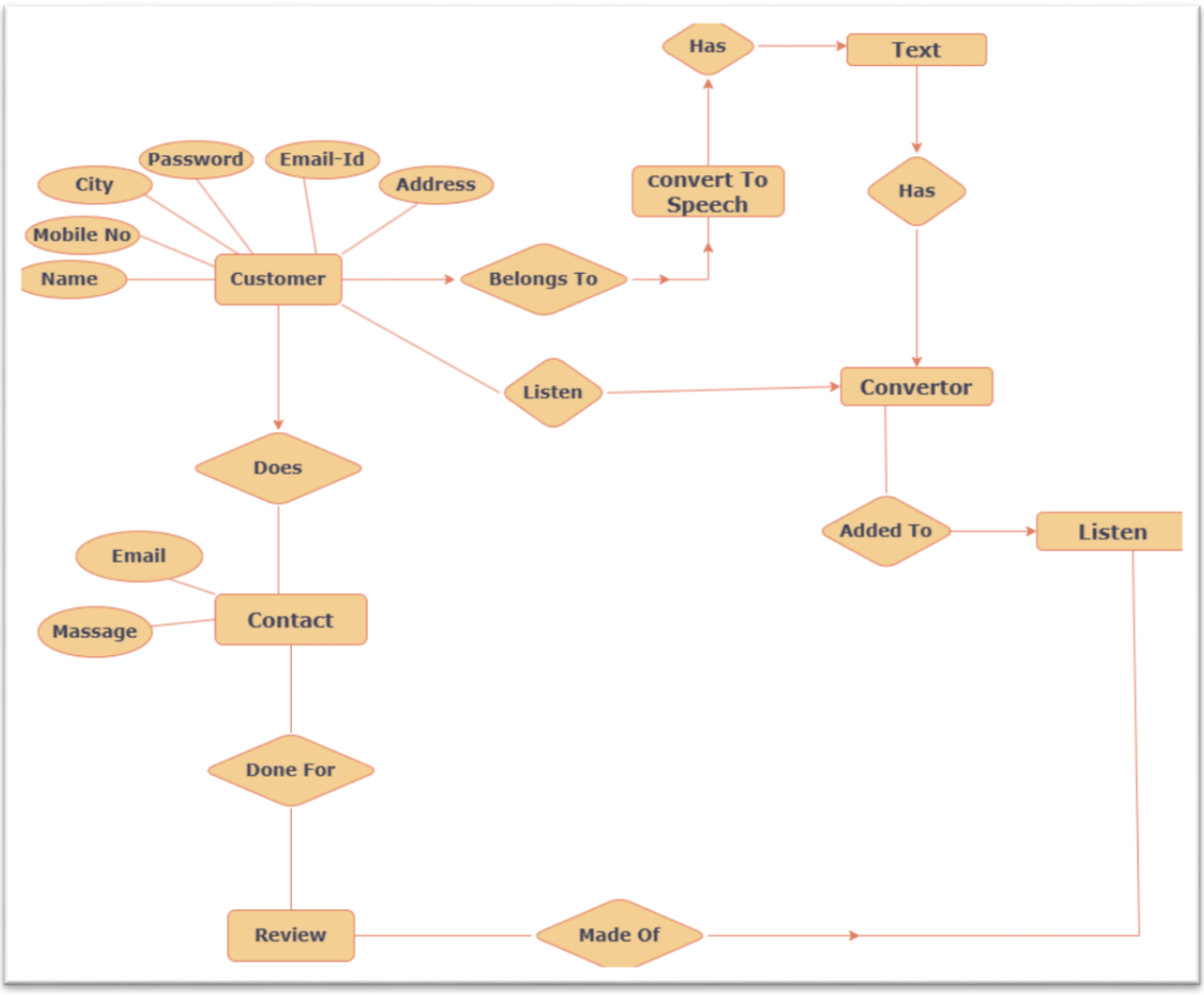


Diagram: 7.ER Diagram

➢ Class Diagram :-

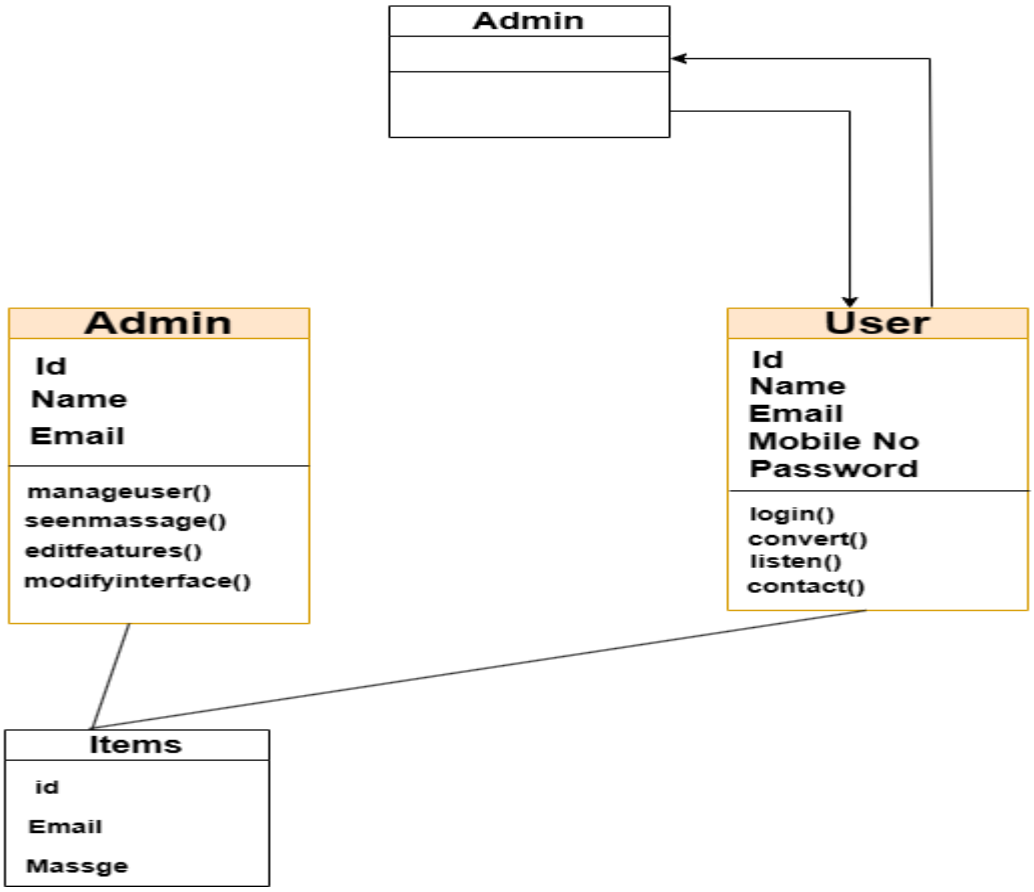


Diagram: 8. Class Diagram

➢ Use Case Diagram :-

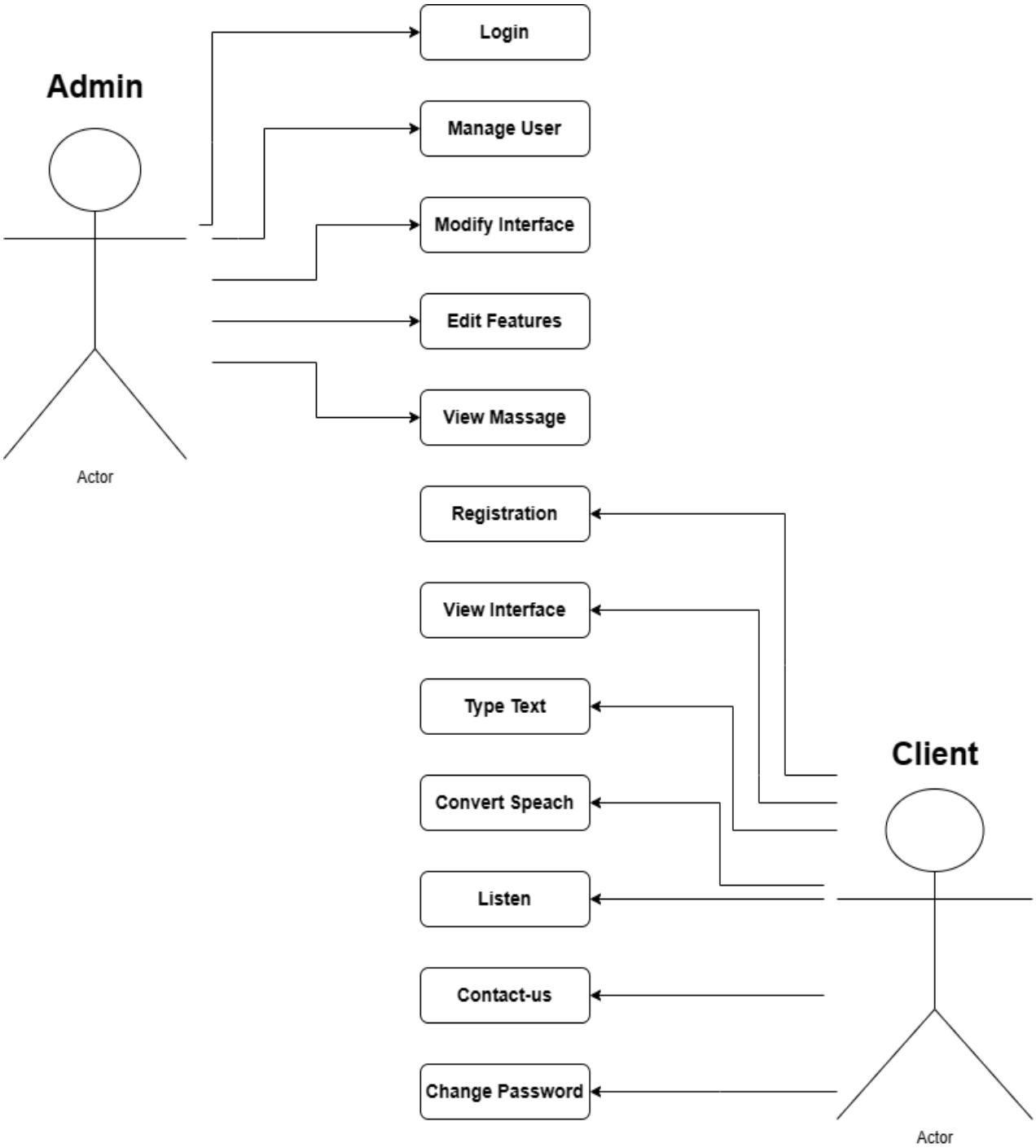


Diagram: 9. Use Case Diagram

➢ Activity Diagram(User):-

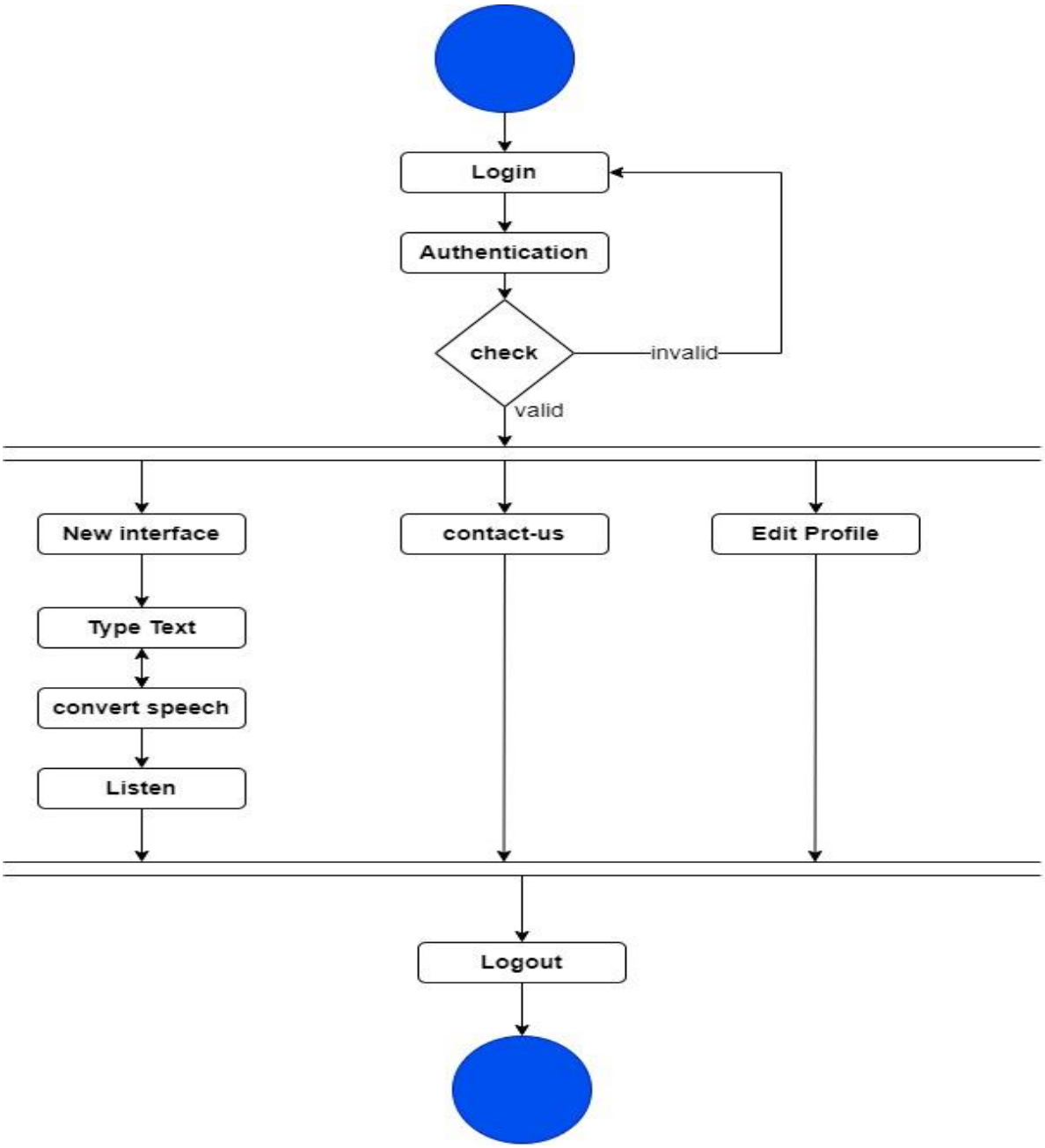


Diagram: 10. Activity Diagram(User)

➢ Activity Diagram(Admin):-

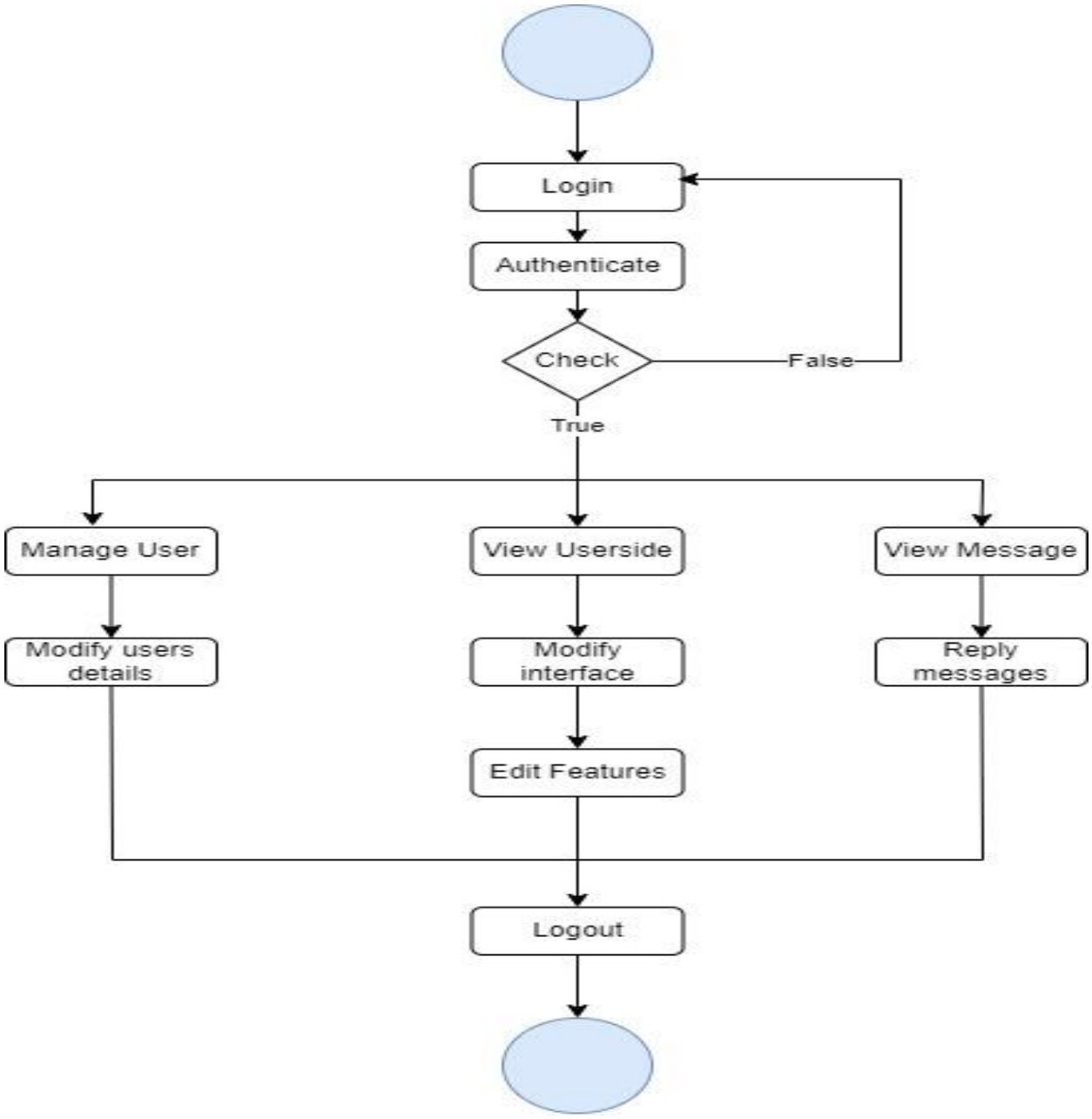


Diagram: 11. Activity Diagram(Admin)

Data Dictionary

➢ Data fields (Database Design)

The following are the designs of the tables that shall be used to store the data in the system.

1. Regis :-

	id	username	email	password
	Filter	Filter	Filter	Filter
1	1	Jaypal	agricraft@gmail.com	pbkdf2:sha256:600000$3s6O6...
2	2	abc	abc@gmail.com	12121212
3	3	vishal	vishal@gmail.com	12121212
4	4	admin	admin123@gmail.com	12121212
5	5	someone	someone@gmail.com	pbkdf2:sha256:600000$JcoQR...

Image:1.Regis

2. **Contact:**

	id	email ▼1	message
	Filter	Filter	Filter
1	1	agricraft@gmail.com	121212
2	2	agricraft@gmail.com	hello
3	3	agricraft@gmail.com	sdsdsd
4	4	agricraft@gmail.com	sdfdsf
5	5	agricraft@gmail.com	hiiii
6	6	agricraft@gmail.com	ghfgfdgf
7	7	agricraft@gmail.com	sdfgfdsffsd
8	8	agricraft@gmail.com	hiiii
9	9	agricraft@gmail.com	hello
10	10	agricraft@gmail.com	hello
11	11	agricraft@gmail.com	this is nice application
12	12	hello@gmail.com	hello
13	13	hello@gmail.com	hello

Image: 2. Contact

Screenshot of Project

- **Client Side Screenshot** :-

1.Login page:

- It is login page of our Application if user wants to buy products they have to login here.

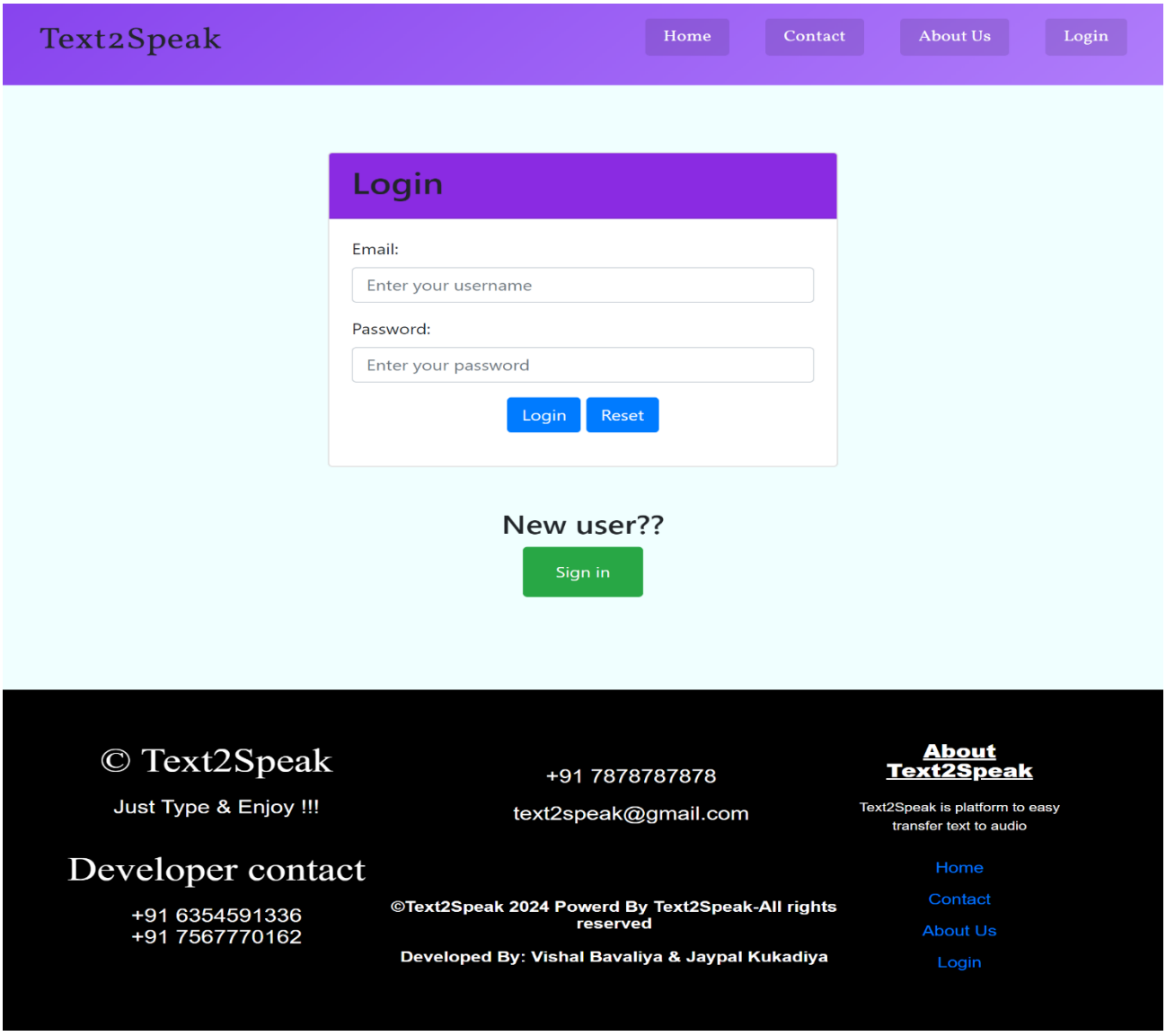


Image: 1.Login page

2.Sign up Page:

- Once user register, they can login.

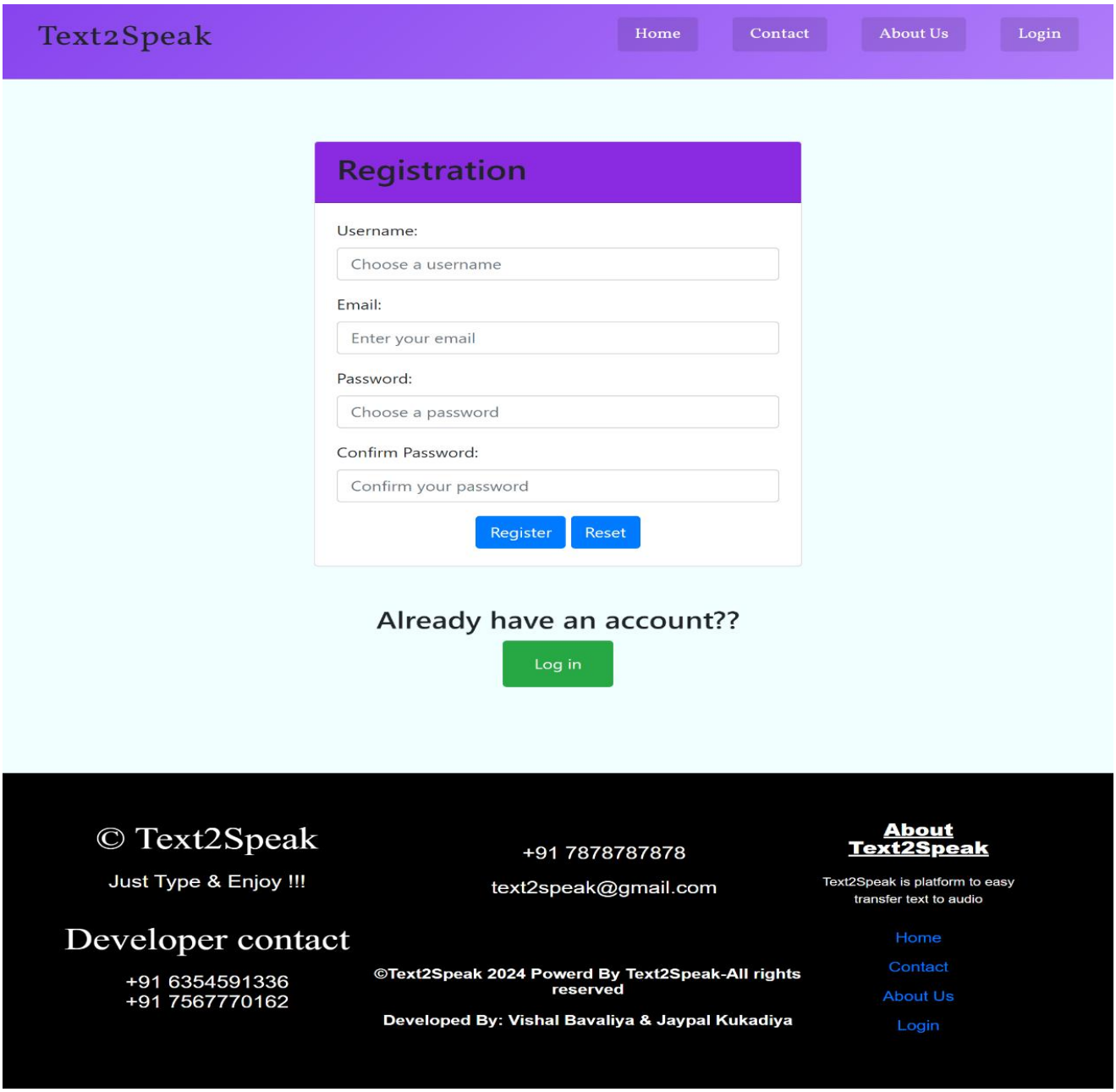


Image: 2. Sign up Page

3.Home page:

- It is first page of our Application, here user can see main interface and can translate text into speech.

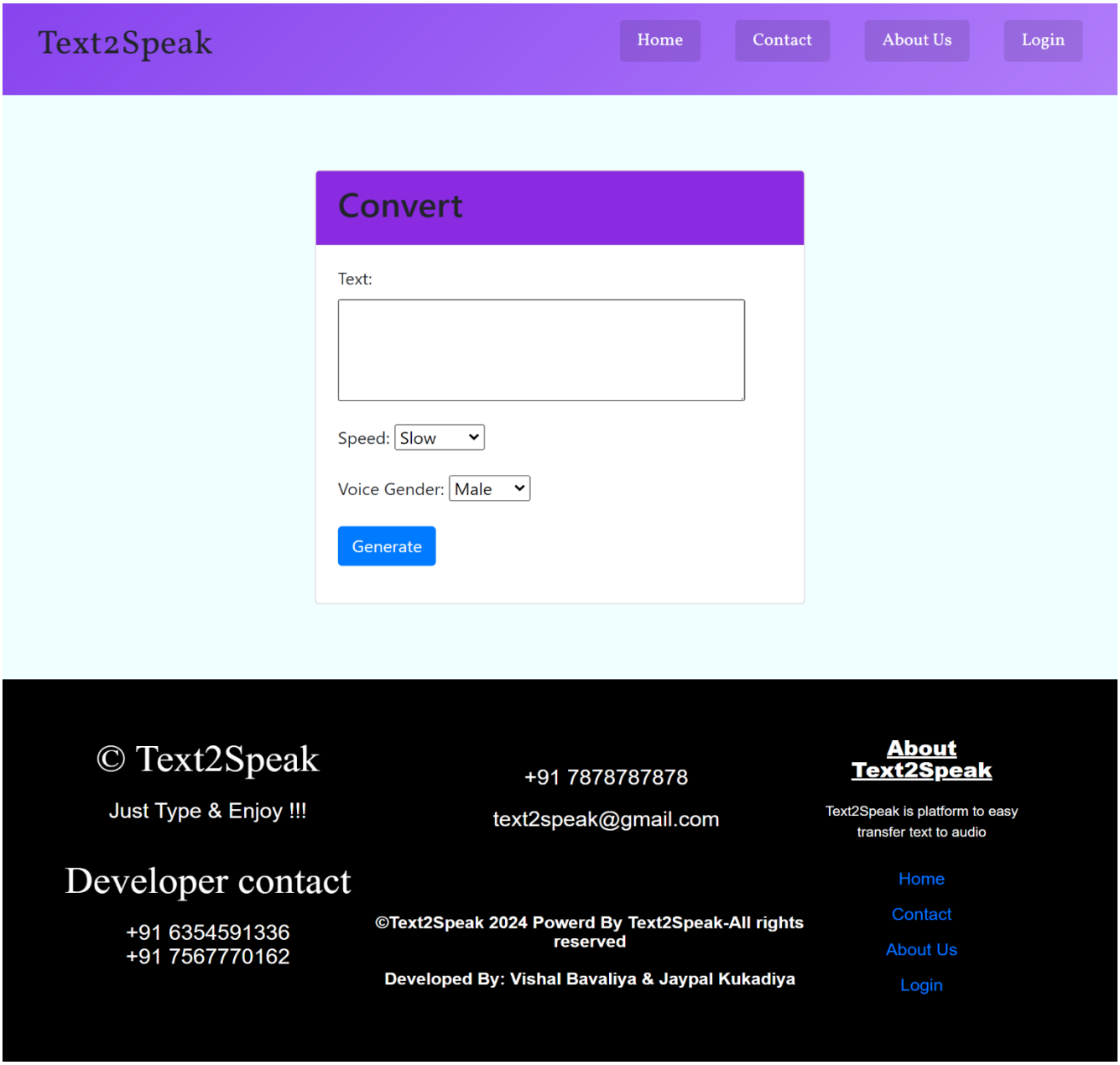


Image: 3. Home page

4.About-us Page:

- User can see all the details about-us in this page.

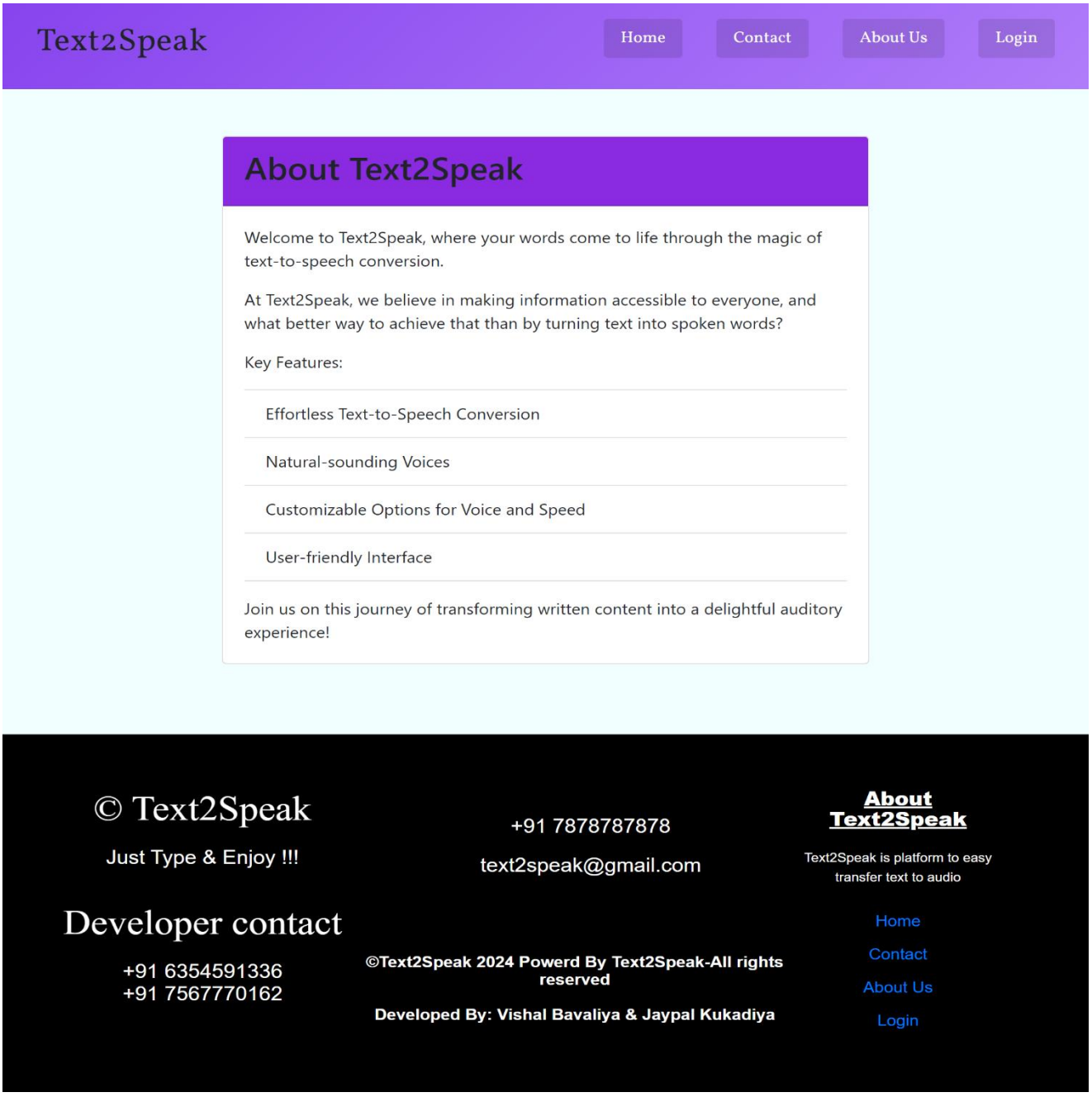


Image: 4. About-us Page

5.Contact-us page:

- There is Contact page from this page user can type the text massage and send to the Admin.

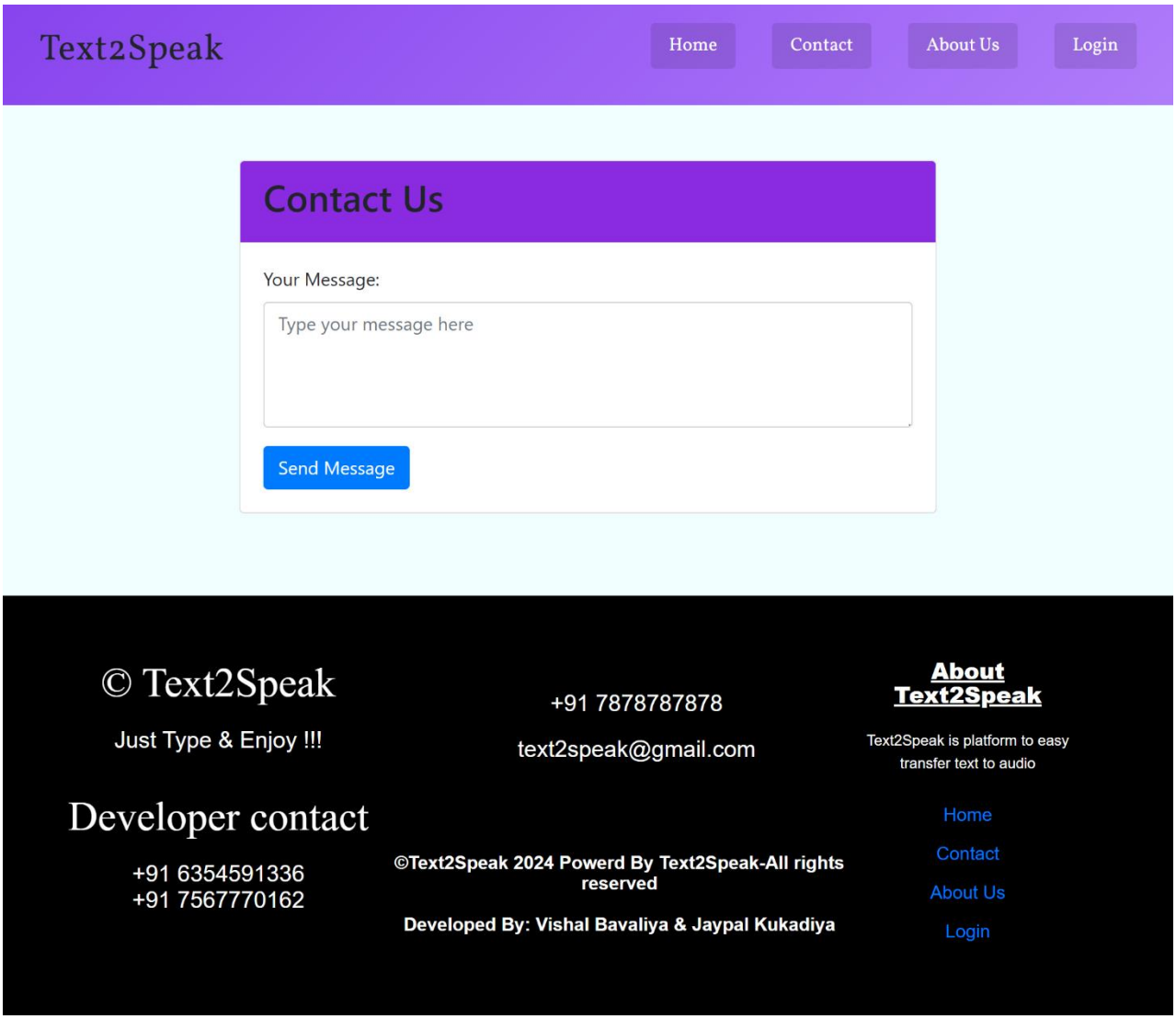


Image: 5. Contact-us Page

➢ Admin side Screenshot:

1. Home Page:

- It is Admin home page the, here are different Category on this page.

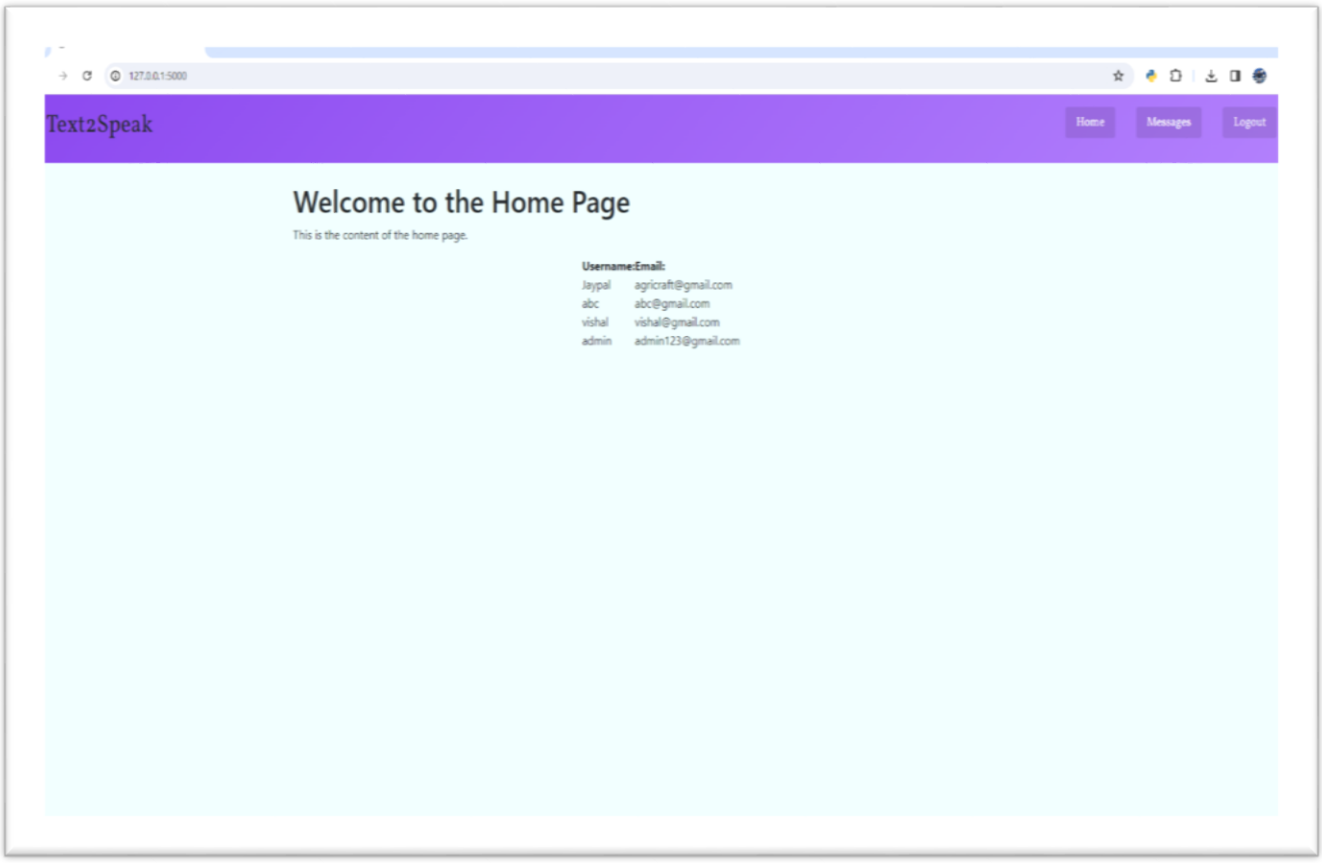


Image: 1. Home Page

2. Massage View Page:

- Admin can view massages send by users.

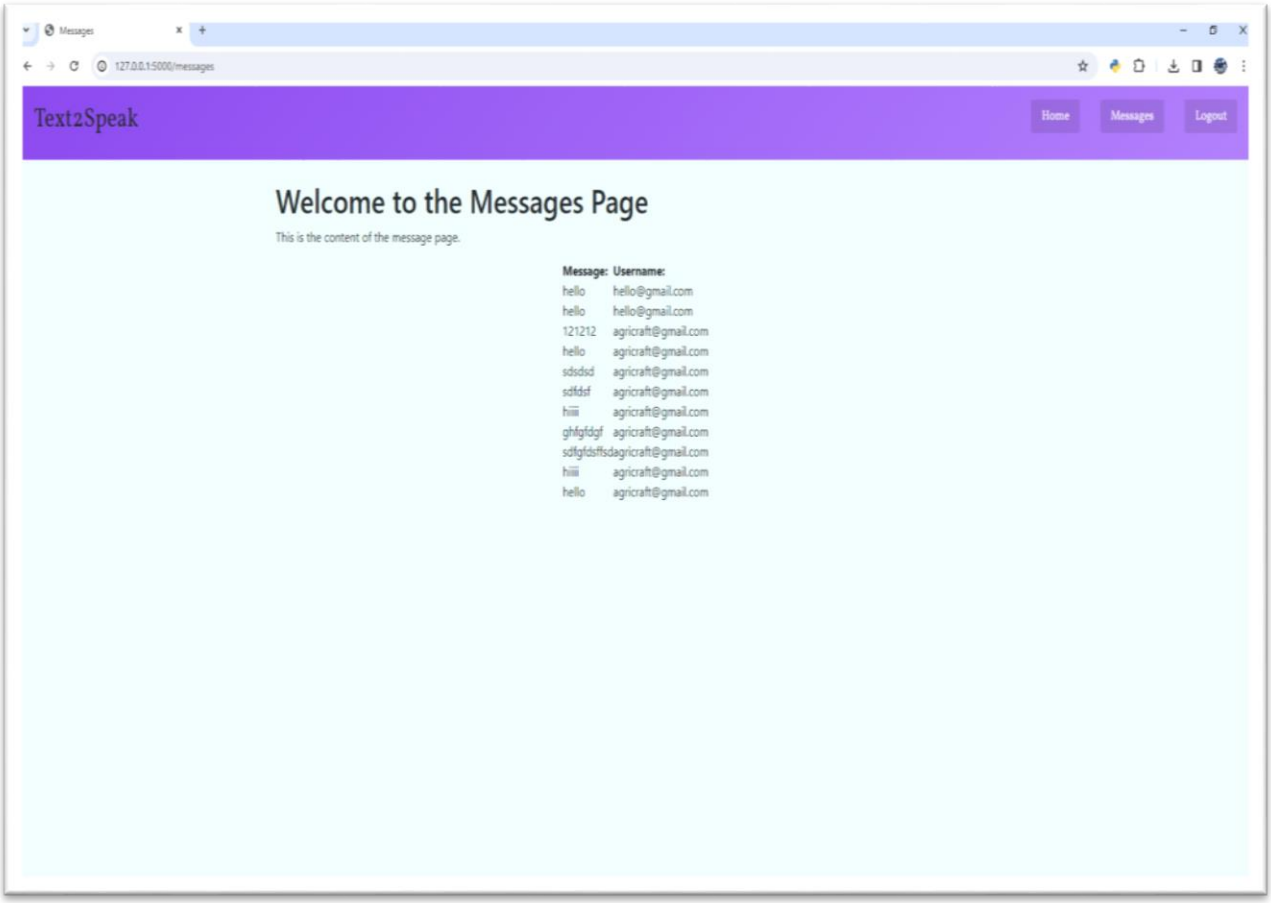


Image: 2. Massage View Page

3.Login Page:

- Admin must have to sign in to manage admin side.

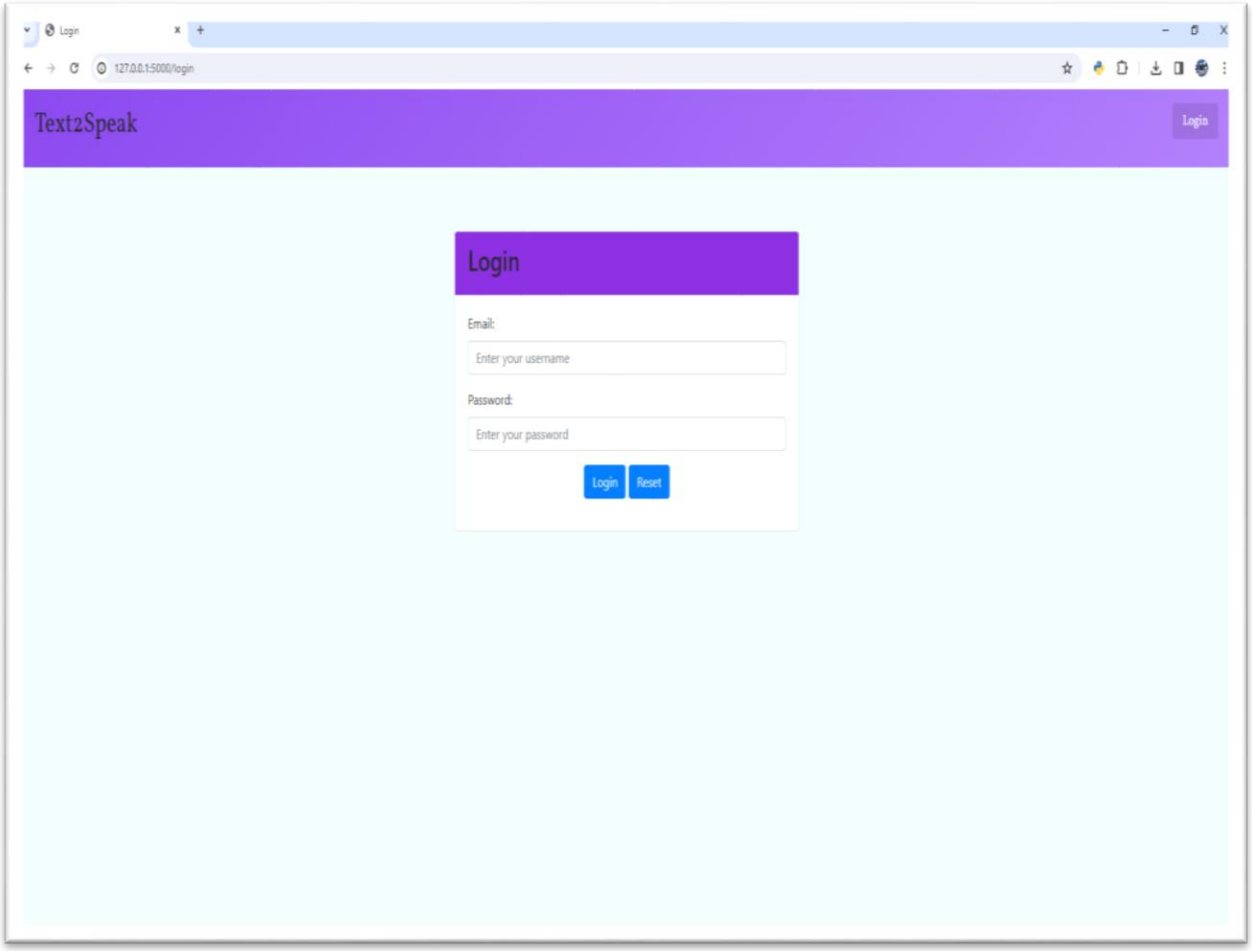


Image: 3. Login page

Conclusion

This project is designed to meet the requirements of customers. it provides all the facilities for the user. In conclusion we have discussed about order processing system its content, what is order processing in a page system, the UML class for user order processing system the different.

It has been developed in Python, keeping in mind the specifications of the system, we have shown an example of a class diagram for order processing system and lastly we explained what is order processing system.

Creating a DFD will help you see what inputs and outputs the system needs to process and transfer. Not only that, but you can also connect its diagram to other diagrams.

Bibliography

To make this project we have taken source from these websites. They were very helpful to create this project.

- **WEBSITES:**

https://voicemaker.in

https://quillbot.com

https://ttsmaker.com

https://speechgen.io

https://muruf.ai

https://speechnotes.co

https://text2sppech.org

https://www.w3schools.com/python/

https://elevenlabs.io

https://youtube.com

https://voicegenerator.io

http://in.pinterest.com

http://canva.com

Thank You

FOR YOUR SUPPORT

Your support and encouragement have been a source of strength for us. Thank you.