Riliv- A Stress Relief Application

Project Work / Dissertation - DSE

B.Sc. (H) Computer Science

SUBMITTED BY:

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Acknowledgement

We would like to take this opportunity to express our sincere appreciation to everyone who has played a role in the development of our project, Riliv. The successful completion of this project would not have been possible without the efforts and contributions of our dedicated team members.

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<u>Certificate</u>

This is to certify that Project Work/ Dissertation report entitled "**Riliv**" a stress relief application is the work carried out by Ikbal, Akshat, Divesh & Manjeet students of B.Sc.(H) Computer Science 6th Semester, Ramanujan College, University of Delhi under my supervision.

This report has not been submitted to any other organization/institution for the award of any other degree/diploma.

Teacher- signature

Abstract

The world we live in today is fast-paced and stressful, and this has led to a rise in mental health problems such as anxiety, depression, and stress-related disorders. The need for mental health support and self-care has become increasingly important in our daily lives. With the ongoing pandemic, the mental health crisis has escalated and people are in need of resources to help them manage their emotions and stress levels.

In response to this growing need, we have developed a web application that offers a range of self-help modules to help people manage their mental health and improve their overall well-being. Our web application is based on the principles of meditation and relaxation therapy, and it provides users with a variety of tools and techniques to help them cope with stress, anxiety, and other mental health issues.

The web application is designed to be user-friendly and accessible to anyone, regardless of their level of experience with meditation or relaxation therapy. The self-help modules include reading therapy, listening therapy, laughing therapy, talking therapy, yoga therapy, doctor consulting, and more. Each module is designed to address specific issues related to mental health, and users can choose the modules that are most relevant to their needs.

The reading therapy module offers a selection of books and articles on topics related to mental health and well-being. Users can access these resources at any time and read them at their own pace. The listening therapy module provides users with a range of guided meditations and relaxation exercises that can help them reduce stress and anxiety. These exercises are designed to be easy to follow and can be accessed at any time.

The laughing therapy module is designed to help users improve their mood and reduce stress through laughter. This module includes a

selection of funny videos, jokes, and other humorous content that can help users feel better and more relaxed. The talking therapy module provides users with access to professional counselors and therapists who can offer support and guidance on a range of mental health issues.

The yoga therapy module offers a range of yoga exercises and practices that can help users improve their physical and mental health. These exercises are designed to be accessible to people of all ages and fitness levels, and they can be done at home or in a yoga studio. The doctor consulting module provides users with access to licensed medical professionals who can offer advice and guidance on a range of mental health issues.

Overall, our web application is a comprehensive solution for people looking to manage their mental health and improve their overall well-being. With a range of self-help modules to choose from, users can find the support and resources they need to lead happier, healthier lives. Whether you are dealing with stress, anxiety, or other mental health issues, our web application has something to offer. We believe that everyone deserves access to mental health support, and we are committed to making that a reality through our innovative web application.

TABLE OF CONTENTS

1)Introduction

1.1) Introduction

Our web application is designed to provide self-help modules for individuals seeking mental health and wellness solutions. Using a variety of therapeutic techniques, including reading therapy, listening therapy, laughing therapy, talking therapy, and yoga therapy, our web application aims to help users achieve their mental health goals. With a secure and reliable communication interface and personalized user data tracking, our web application offers a seamless and personalized experience for users seeking mental health and wellness solutions.

1.2) Purpose

The purpose of our web application is to provide individuals with a comprehensive set of tools and resources to help them manage their mental health and well-being. In today's fast-paced and stressful world, mental health issues such as anxiety, depression, and stress-related disorders are on the rise. Our web application is designed to address this growing need for mental health support by offering a range of self-help modules that are based on the principles of meditation and relaxation therapy.

The purpose of our reading therapy module is to provide users with access to a range of books and articles on topics related to mental health and well-being. Reading has long been recognized as a powerful tool for improving mental health, and our module offers users the opportunity to explore a range of topics related to mental health and self-care. Whether someone is struggling with stress, anxiety, or depression, our reading therapy module offers a wealth of information and resources to help them understand their condition and develop effective coping strategies.

1.3) Intended Audience

Our web application is intended for a diverse range of individuals seeking support for their mental health and well-being. This includes those dealing with stress, anxiety, and depression, as well as those looking to improve their overall wellness. Our application is also useful for healthcare professionals, educators, and employers who seek to support their patients, students, and employees. We believe that everyone deserves access to mental health resources and support, and our web application is designed to be inclusive, accessible, and effective for all.

1.4) Project Scope

The scope of our project is to provide a comprehensive web application that can be accessed through the internet. The current version of the application is desktop-based and can also be accessed on tablets. The application provides a range of self-help modules for mental health and well-being, including reading therapy, listening therapy, yoga therapy, and more.

In addition to the current desktop and tablet versions, we plan to develop a mobile interface for the application in the next version. This will make the application even more accessible to users who prefer to use their mobile devices for accessing online resources. The mobile version will be designed with the same features and functionality as the desktop version, ensuring a consistent user experience across all devices.

Overall, our web application aims to provide users with a convenient, accessible, and effective tool for managing their mental health and well-being. The desktop and tablet versions are already available, and the upcoming mobile version will make the application even more accessible to users on-the-go. We believe that our web application has the potential to make a positive impact on the lives of many individuals, providing them with the resources and support they need to thrive.

2)Project Sub-Modules
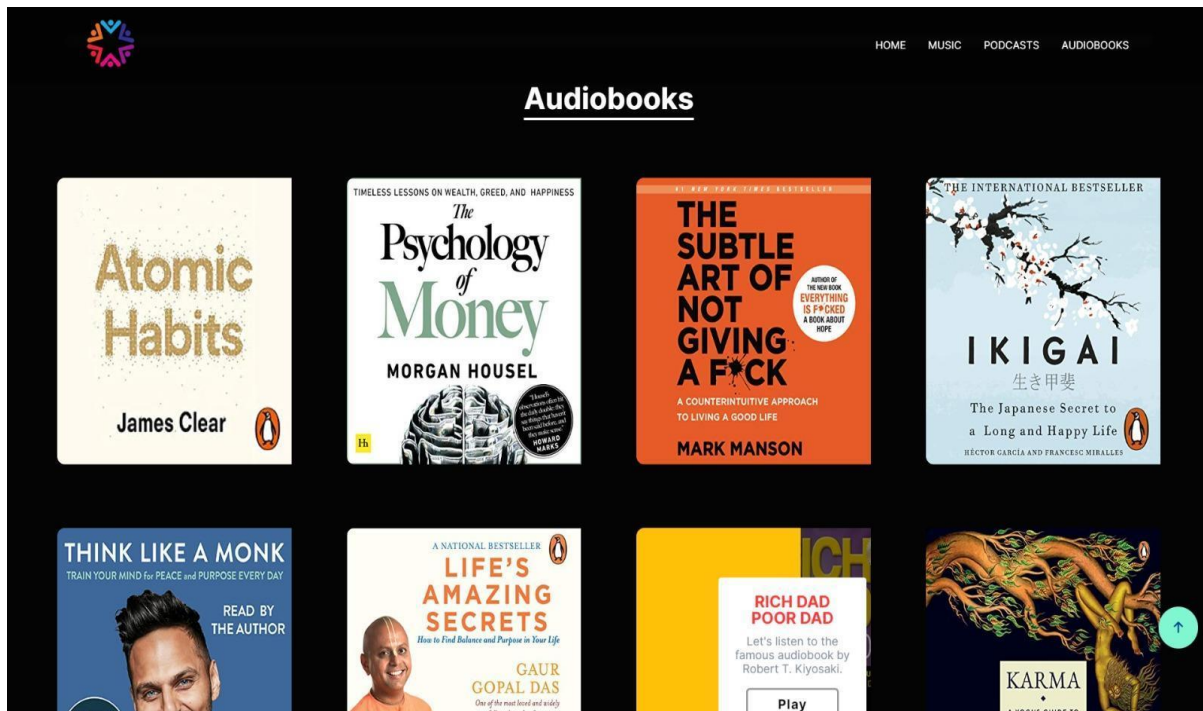
2.1) Audio Therapy

Audio therapy is one of the self-help modules offered by our web application that aims to promote relaxation and reduce stress through the use of sound and music. Our audio therapy module offers users a variety of audio resources, including music from the Spotify API, podcasts from YouTube, and audio books from Audible.
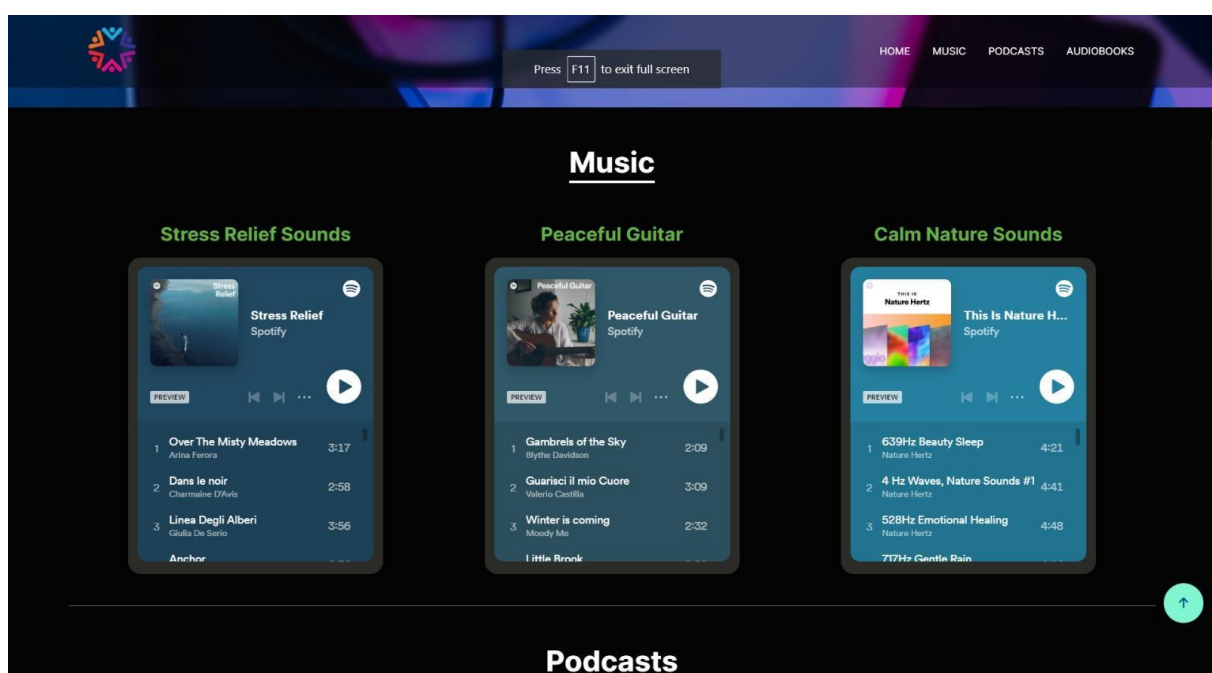
One of the key features of our audio therapy module is its integration with the Spotify API. This allows users to access a wide range of music tracks and playlists from the Spotify platform, which can be customized according to their personal preferences.
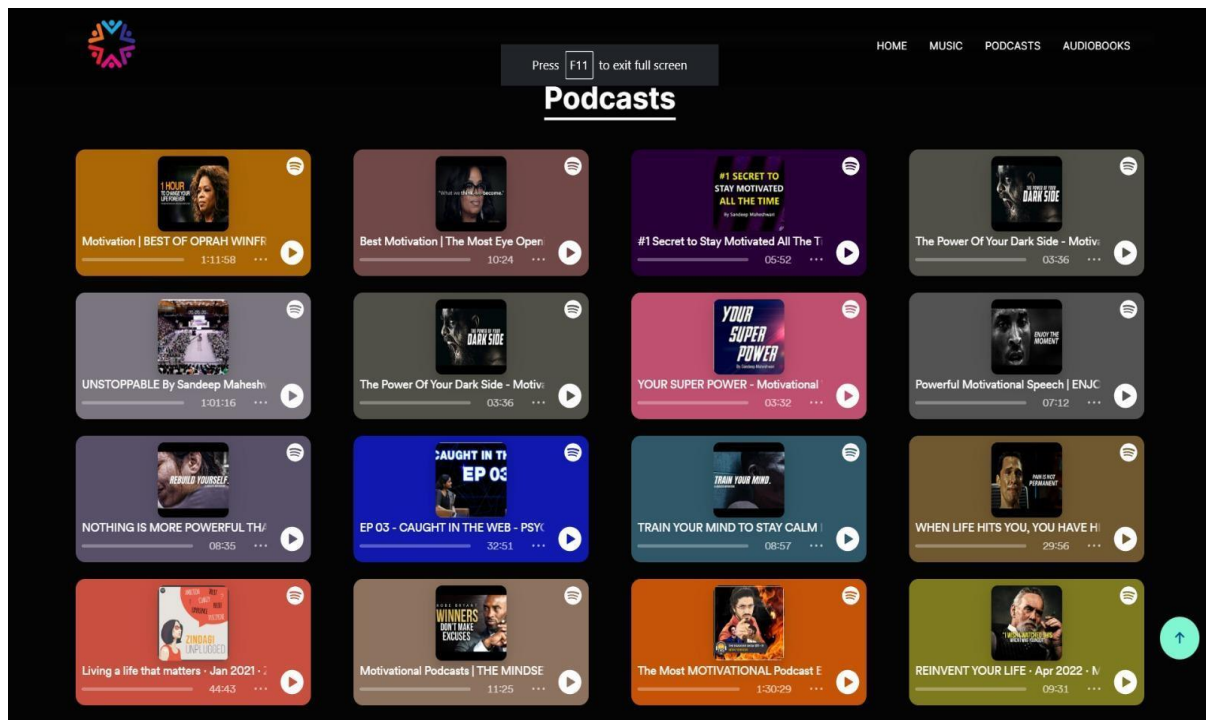
In addition to music, our audio therapy module also offers users access to podcasts from YouTube. These podcasts are curated specifically for the purpose of promoting relaxation and reducing stress, and cover a range of topics such as meditation, mindfulness, and deep breathing techniques.

Furthermore, our audio therapy module also includes access to a range of audio books from Audible. These audio books are designed to provide inspiration and motivation for users seeking to improve their mental health and well-being.

To enhance the user experience, our audio therapy module also includes features such as personalized recommendations, playlists curated by experts in the field of mental health and wellness, and user data tracking. By tracking user listening history and preferences, we are able to offer personalized recommendations for music tracks, podcasts, and audio books that are tailored to each user's individual needs and interests.

Overall, our audio therapy module is designed to provide users with a comprehensive range of audio resources to promote relaxation and reduce stress. With features such as integration with the Spotify API, curated playlists.
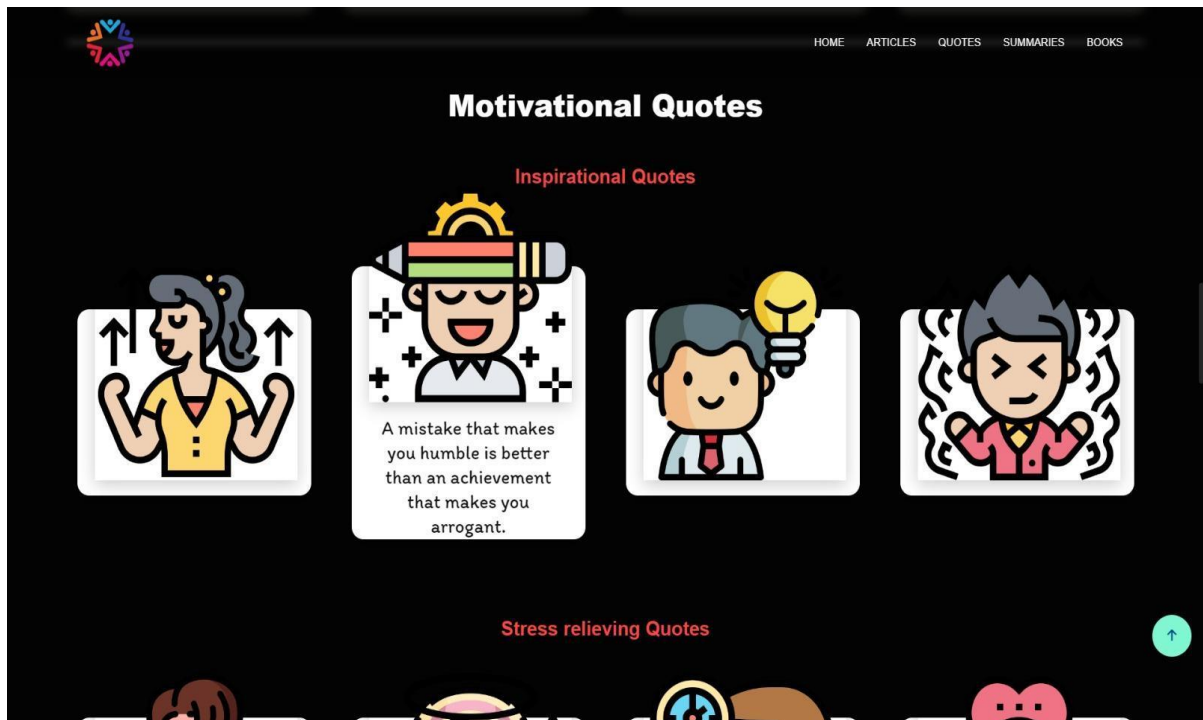
2.2) Reading Therapy

The Reading Therapy page is one of the self-help modules offered by our web application, which is designed to provide users with a range of resources to promote mental wellness through reading. This page features a variety of materials, including book summaries, articles, motivational quotes, and links to books available on Amazon.
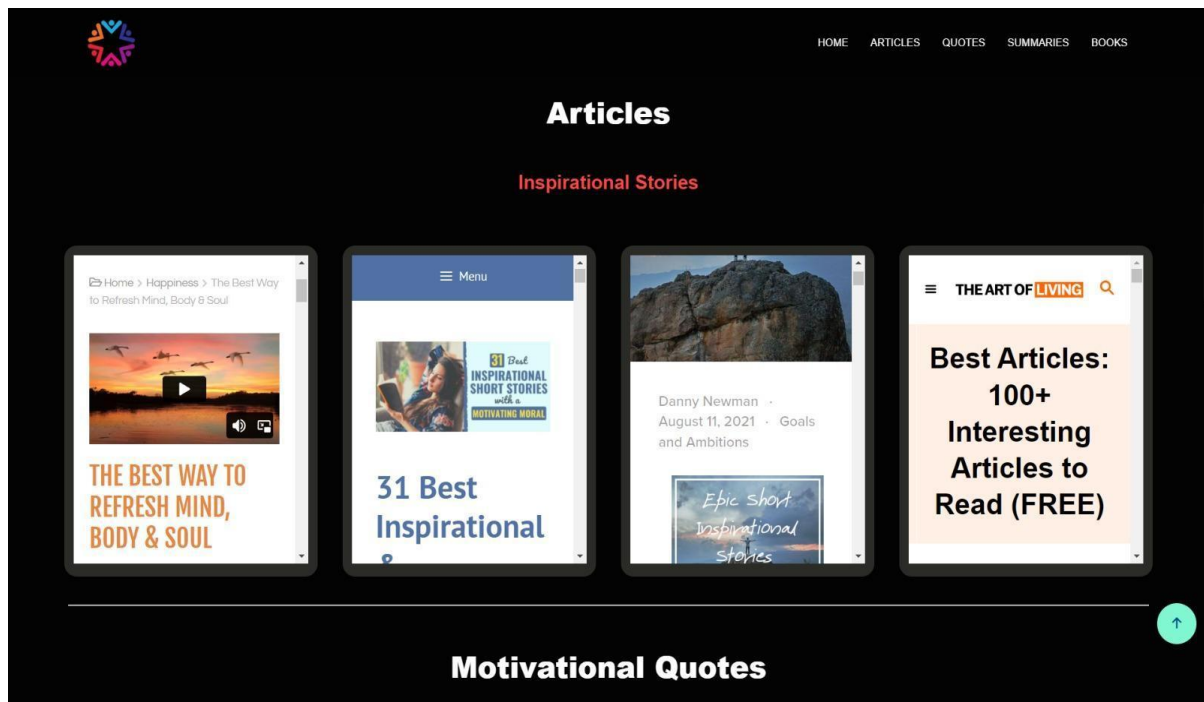

One of the key features of the Reading Therapy page is its collection of book summaries. These summaries provide users with a brief overview of the key themes and ideas explored in a variety of popular books related to mental health and well-being. Users can browse and search for book summaries, and select titles that interest them.

In addition to book summaries, our Reading Therapy page also features a selection of articles related to mental health and wellness. These articles cover a range of topics such as mindfulness, self-care, and stress reduction techniques. Users can browse and search for articles, and read them directly from our web application.

To further inspire and motivate users, the Reading Therapy page also features a collection of motivational quotes related to mental health and well-being. These quotes are designed to provide users with a source of encouragement and inspiration as they pursue their mental wellness goals.
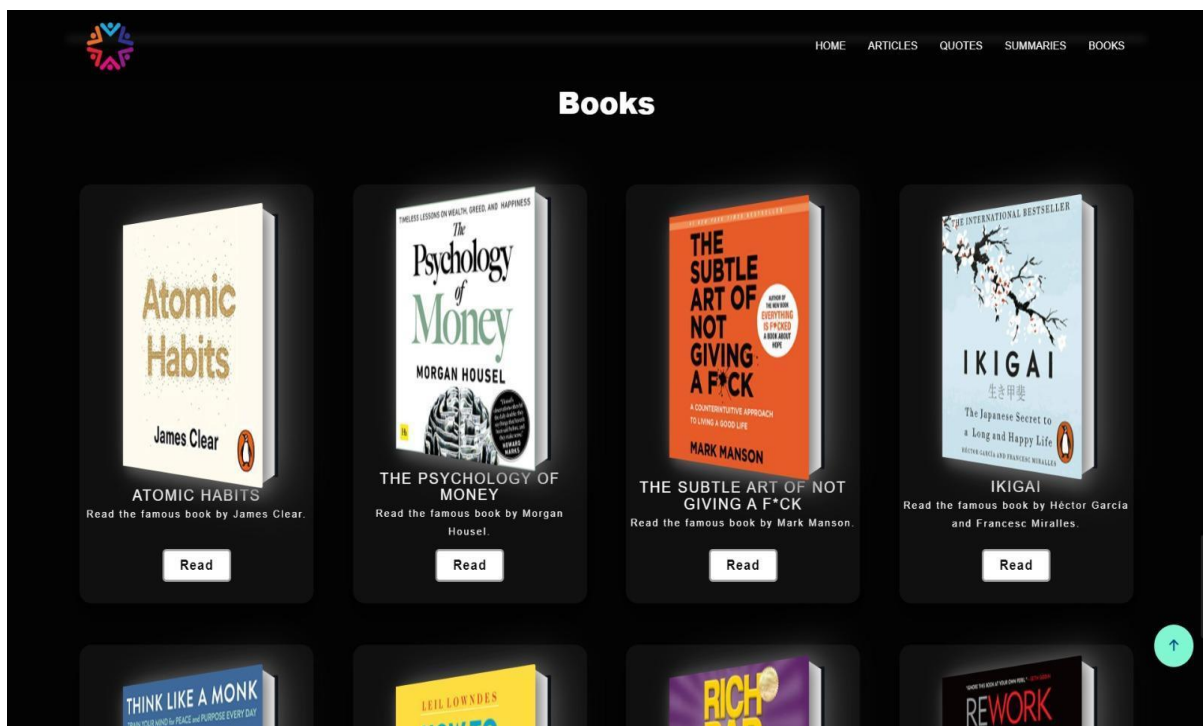

Finally, the Reading Therapy page includes links to a range of books available on Amazon related to mental health and well-being. Users can browse and select

books that interest them, and purchase them directly from Amazon.

Overall, the Reading Therapy page is designed to provide users with a range of high-quality resources related to mental health and well-being. With features such as book summaries, articles, motivational quotes, and links to relevant books, our aim is to inspire and motivate users as they pursue their mental wellness goals.
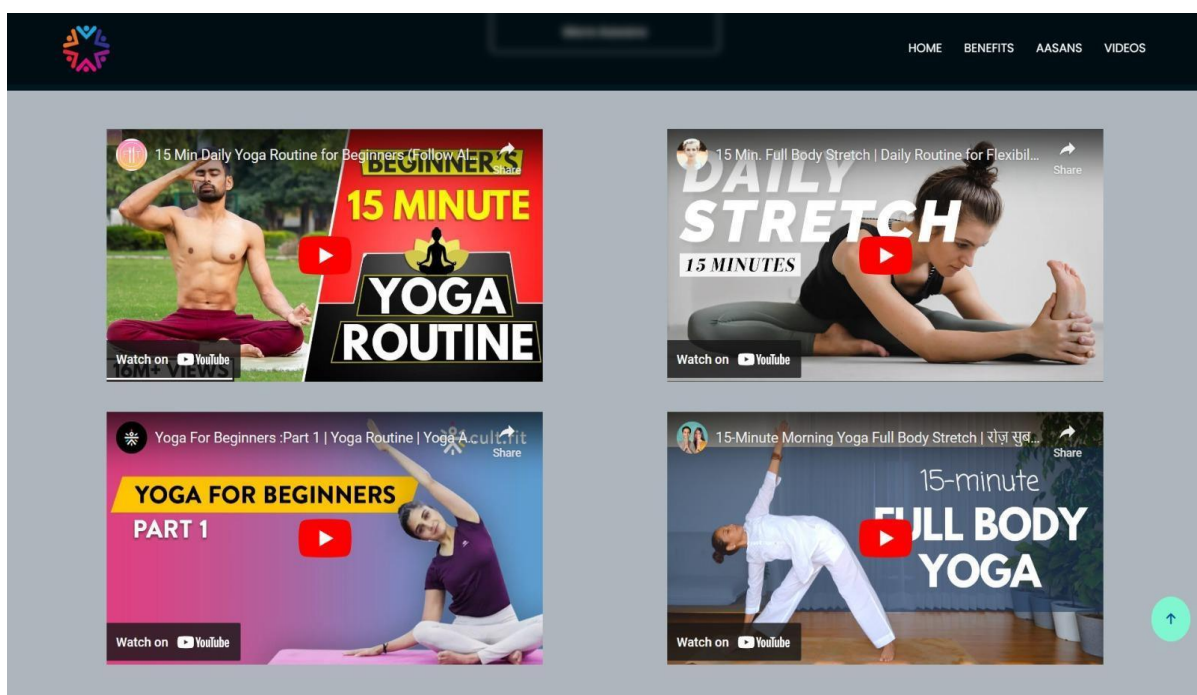
2.3) Yoga Therapy

The Yoga Therapy page is one of the self-help modules offered by our web application, which is designed to provide users with resources related to yoga and its benefits for mental and physical wellness. This page features several sections, including information about the benefits of yoga, a section on yoga asanas, and a section with videos demonstrating different yoga asanas.
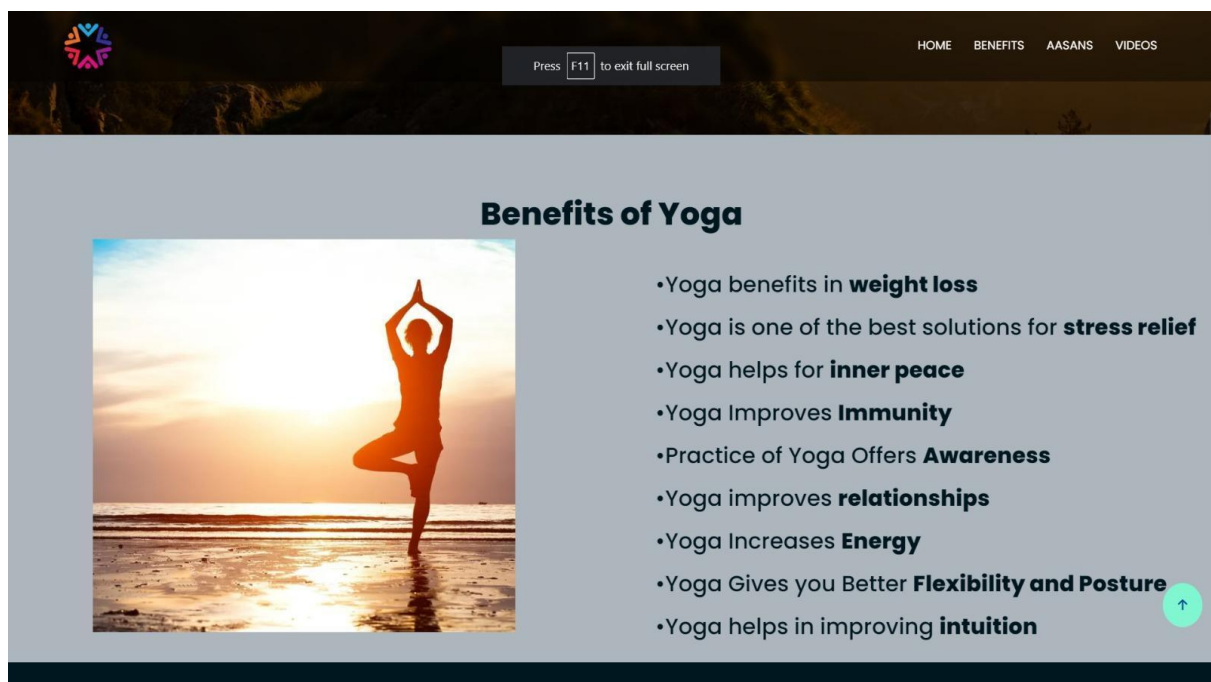
The benefits of yoga section provide users with an overview of how yoga can help improve mental and physical wellness. This section covers a range of topics, including stress reduction, improved flexibility and balance, increased energy and vitality, and improved overall health and well-being. By providing information on the benefits of yoga, we hope to encourage users to explore this powerful practice for themselves.
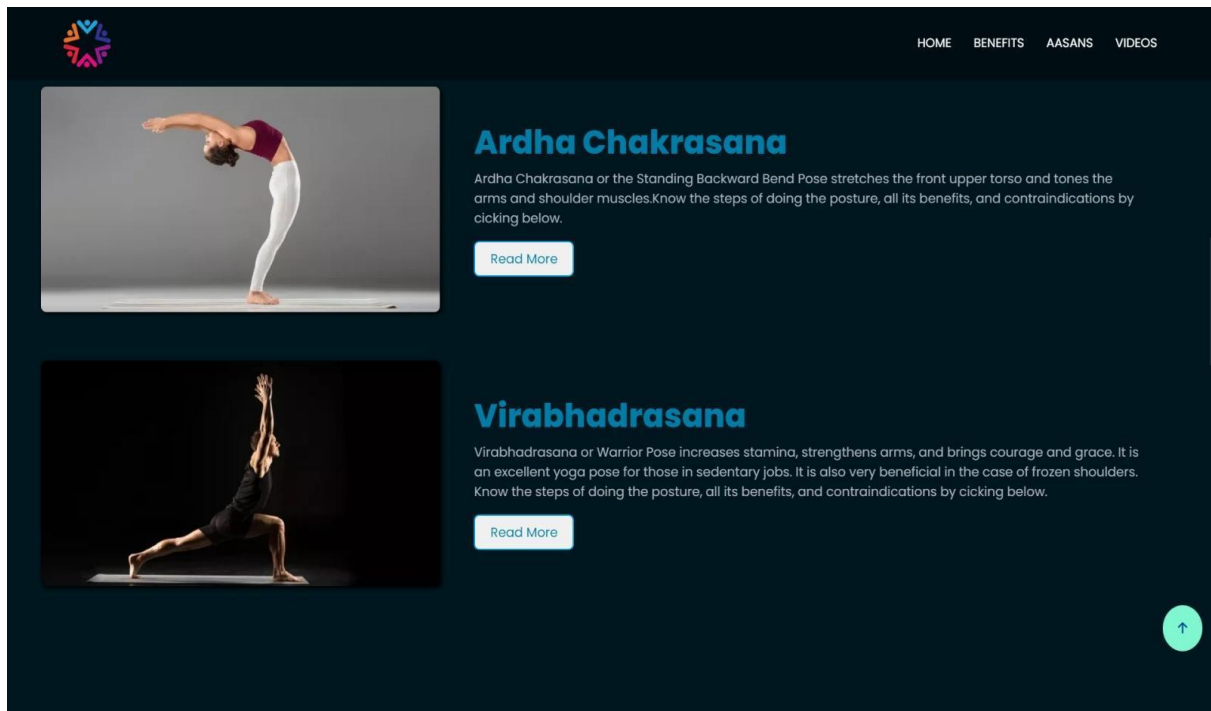
The yoga asanas section is designed to help users learn more about different yoga poses or asanas. This section features descriptions and images of a variety of asanas, along with detailed instructions on how to perform them. Users can browse and search for specific asanas, and learn how to perform them correctly.

Finally, the video section provides users with access to a range of videos demonstrating different yoga asanas. These videos are designed to help users learn how to perform asanas correctly, and to help them develop a regular yoga

practice. Users can browse and search for specific videos, and watch them directly from our web application.

Overall, the Yoga Therapy page is designed to provide users with high-quality resources related to yoga and its benefits for mental and physical wellness. With sections covering the benefits of yoga, yoga asanas, and video demonstrations of asanas, our aim is to inspire and motivate users to explore this powerful practice for themselves.
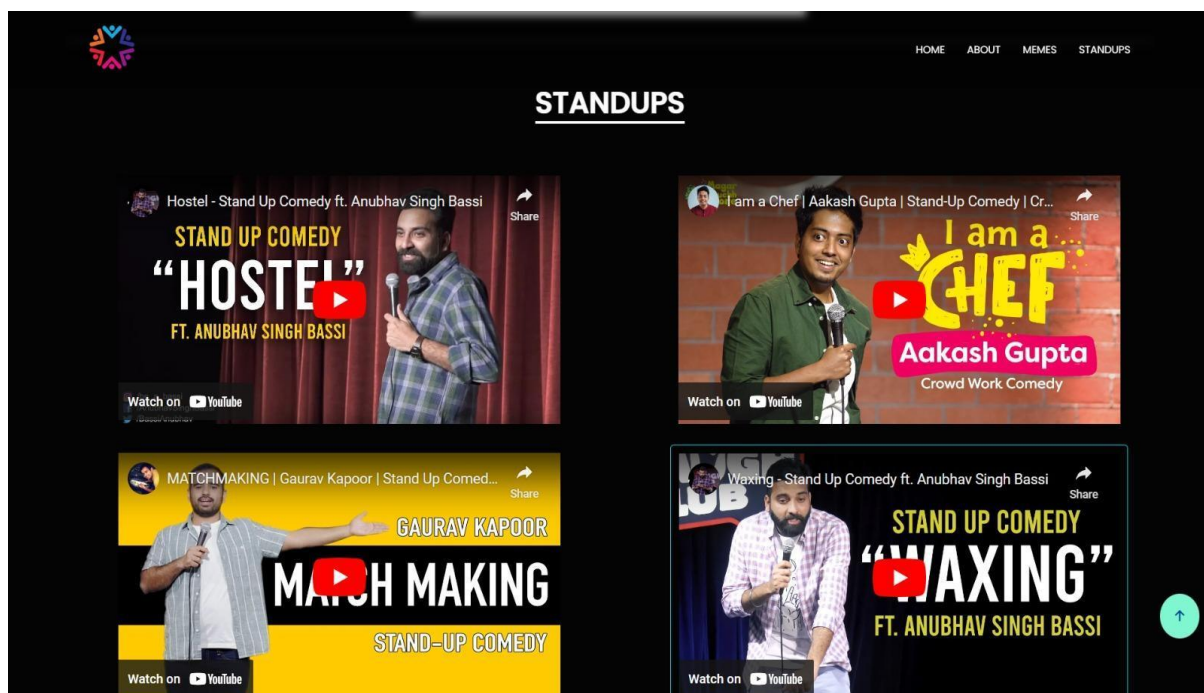
2.4) Laughing Therapy

The Laughing Therapy page is one of the self-help modules offered by our web application, which is designed to provide users with resources related to the benefits of laughter and humor for mental and physical wellness. This page features several sections, including a section for memes and a video section featuring stand-up comedy videos.

The memes section is designed to provide users with a collection of funny images, videos, and memes that are intended to inspire laughter and joy. These memes may be curated by our team or submitted by users, and they cover a range of topics, from lighthearted jokes to inspirational quotes that promote positivity

and resilience.

The video section features stand-up comedy videos from some of the most popular comedians in the world. These videos are designed to help users laugh and feel good, even when they may be feeling stressed or overwhelmed. Users can browse and search for specific videos, and watch them directly from our web application.
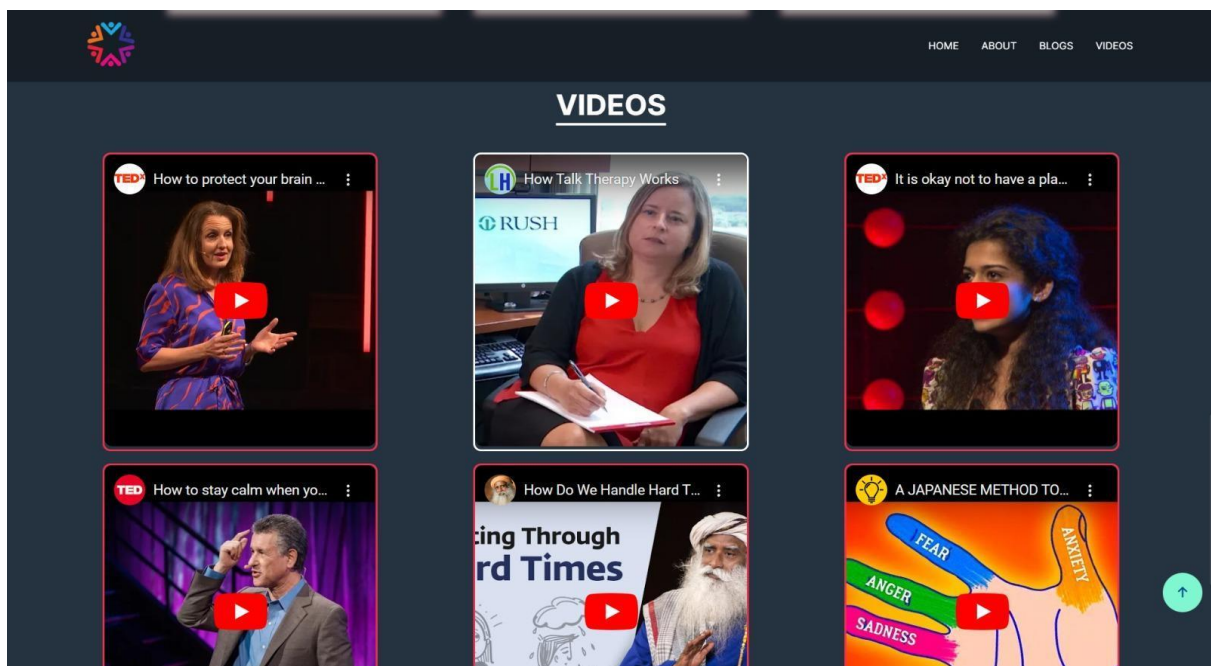
Overall, the Laughing Therapy page is designed to provide users with high-quality resources related to the benefits of laughter and humor for mental and physical wellness. With sections covering memes and stand-up comedy videos, our aim is to inspire and motivate users to explore the therapeutic power of laughter.

2.5) Talking Therapy

The Talking Therapy page is one of the self-help modules offered by our web application, which is designed to provide users with resources related to the power of communication for mental and emotional well-being. This page features several sections, including a section for blogs and a video section featuring talks related to communication and mental health.
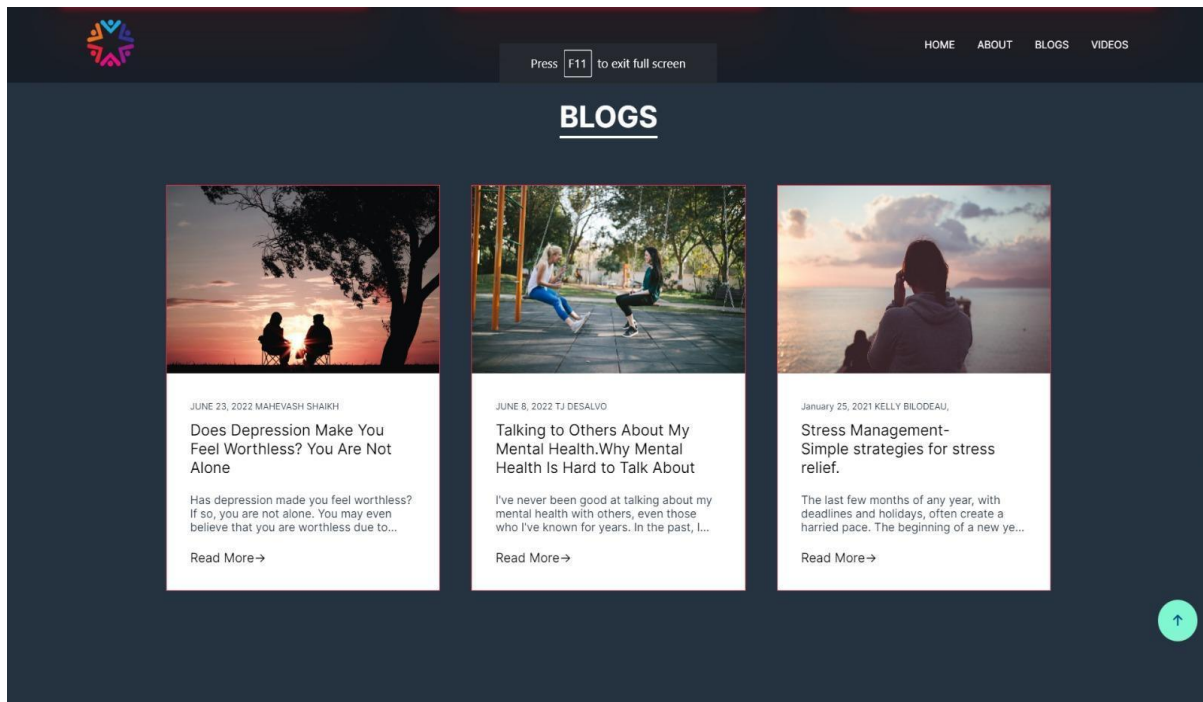
The blogs section is designed to provide users with a collection of informative articles, stories, and personal experiences related to the power of communication and the role it plays in mental and emotional wellness.


The video section features talk from experts in the field of communication and mental health, as well as personal stories and experiences shared by individuals who have found healing through communication. These videos are designed to inspire and motivate users to explore the therapeutic power of communication,

and provide insights into how it can help them better manage their mental health.

Overall, the Talking Therapy page is designed to provide users with high-quality resources related to the power of communication for mental and emotional wellness. With sections covering blogs and talks, our aim is to inspire and motivate users to explore the therapeutic benefits of communication, and to provide them with the tools and resources they need to communicate more effectively and improve their mental health.

2.6) Child Therapy

The Child Therapy page is one of the self-help modules offered by our web application, which is designed to provide resources and support to children and their parents. This page features several sections, including an About section, an images section, and a video section featuring videos related to child therapy.
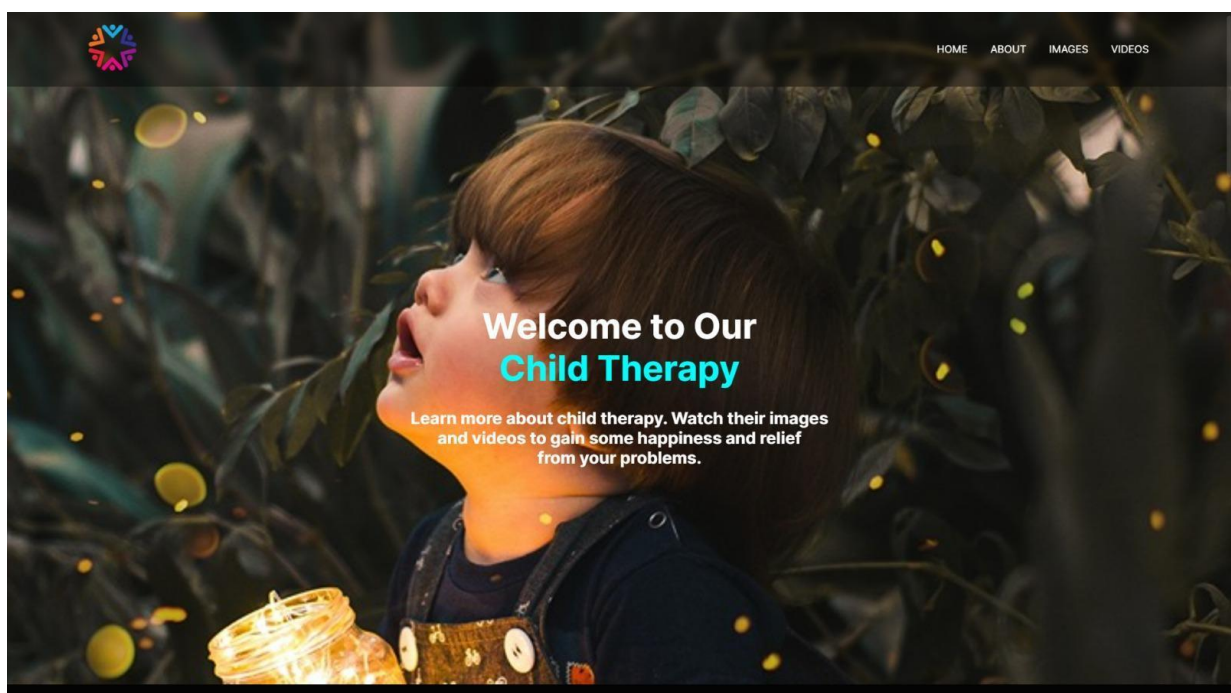
The About section is designed to provide parents and caregivers with information about the benefits of therapy for children, and to address common concerns and questions related to child therapy. This section may also feature articles or blog

posts related to child therapy, such as tips for finding a therapist or how to talk to your child about therapy.
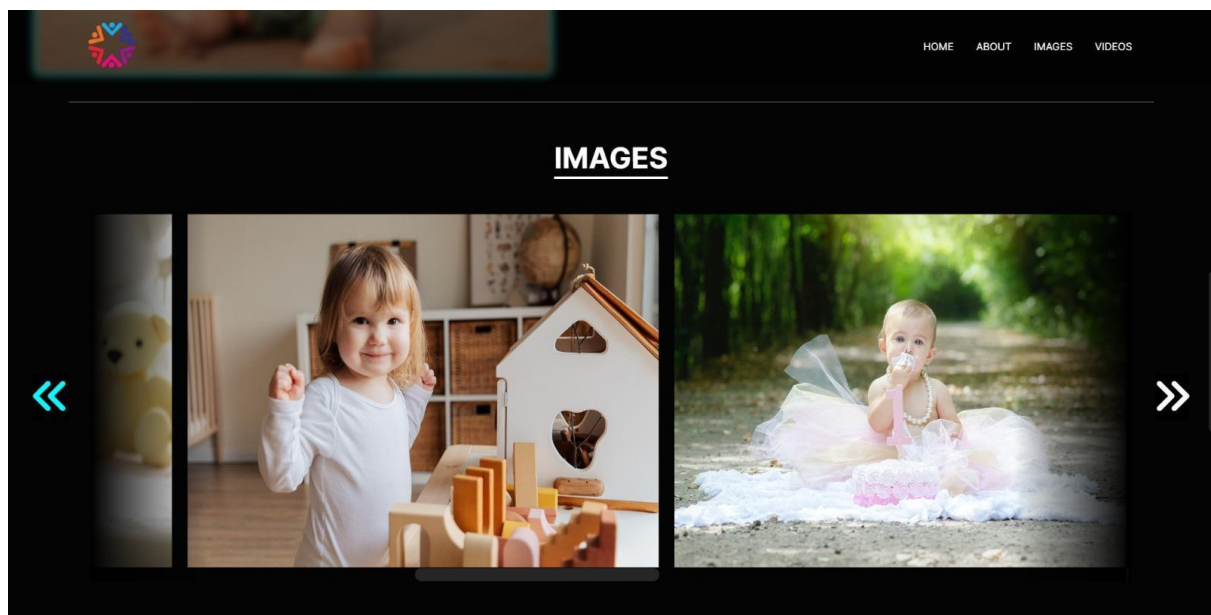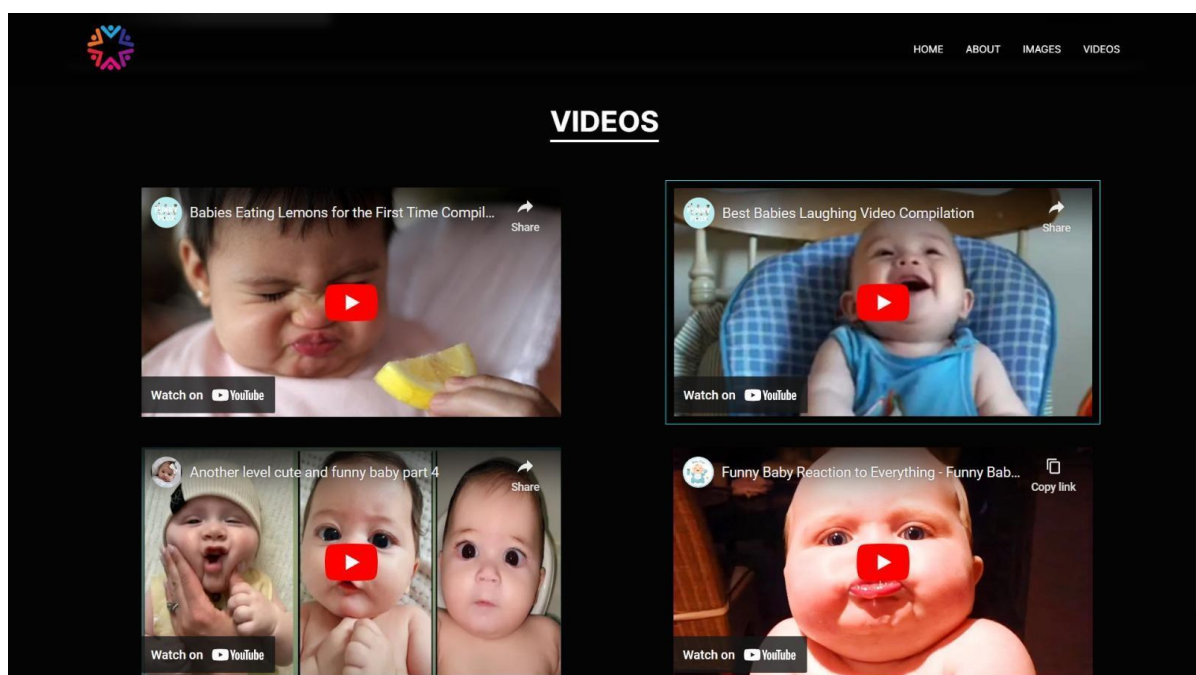

The images section may feature pictures, illustrations, or other visual aids related to child therapy. These images may be designed to help children understand and cope with difficult emotions or experiences, or to promote positive mental health habits.

The video section features videos related to child therapy, which may include interviews with therapists, personal stories from children who have undergone therapy, or educational videos aimed at helping parents and caregivers understand

the benefits of therapy for children.

Overall, the Child Therapy page is designed to provide a safe and supportive environment for children and their parents to explore the benefits of therapy. With sections covering About, images, and videos, our aim is to provide high-quality resources and support to help children and their families improve their mental health and well-being.
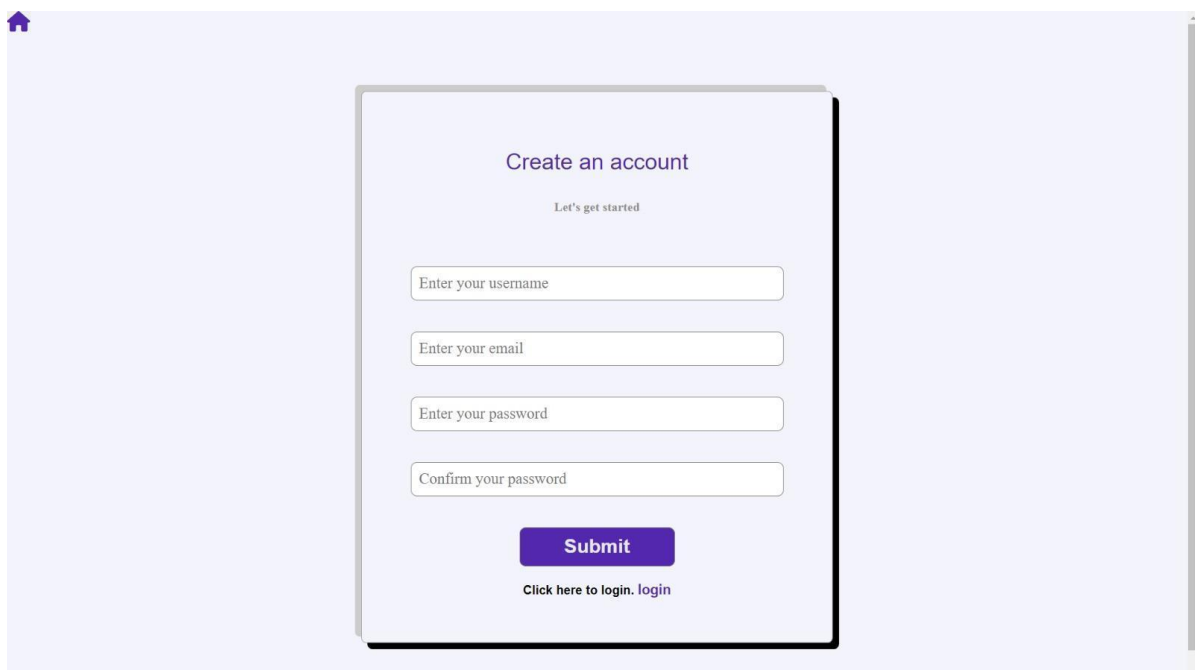
3)Registration Section

The web Login/Registration page is a crucial part of our application, as it enables users to create an account and login to access all the modules and resources available on our platform. Through the registration process, users can provide their personal details and create login credentials that are securely stored in our database.

Once registered, users can use the Login page to enter their login credentials and gain access to the various modules and features of the application. The Login/Registration page is designed to provide users with a secure and user-friendly experience, while also allowing us to maintain user records for our database.

Overall, the Login/Registration page plays an essential role in our application, as it enables us to manage user data and permissions, ensuring that users can access all the modules and features there they need to improve mental health and wellbeing.

3.1) Registration Page

3.2) Login Page

4)Operating Environment

The main component of the Riliv project is the web application, which will be limited to the Web-browser. The application is not resource- or graphics-intensive, so there are no practical hardware constraints.

The app will rely on several functionalities built into Web browser Application Programming Interface (API), so ensuring appropriate usage of the API will be a major concern.

The application will, however, frequently interact with the Spotify and other APIs servers.

Server locally hosted on our system. The server operates on a windows 11 platform with 1GB of RAM. The Registration database will be stored on the default server of MongoDB database.

5)WEB PORTAL

The system shall be built using a standard web page development tool that conforms to either IBM's CUA standards or Microsoft's GUI standards.

There are no memory requirements.

The computers must be equipped with web browsers such as Internet explorer. The product must be stored in such a way that allows the client easy access to it. Response time for loading the product should take no longer than two minutes.

A general knowledge of basic computer skills is required to use the product.

5.1) Assumptions and Dependencies

The System will run on Web Server with Internet Connectivity.

The product shall be based on web and has to be run from a web server.

The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run.

The performance shall depend upon hardware components of the client/customer.

5.2) Data flow diagram
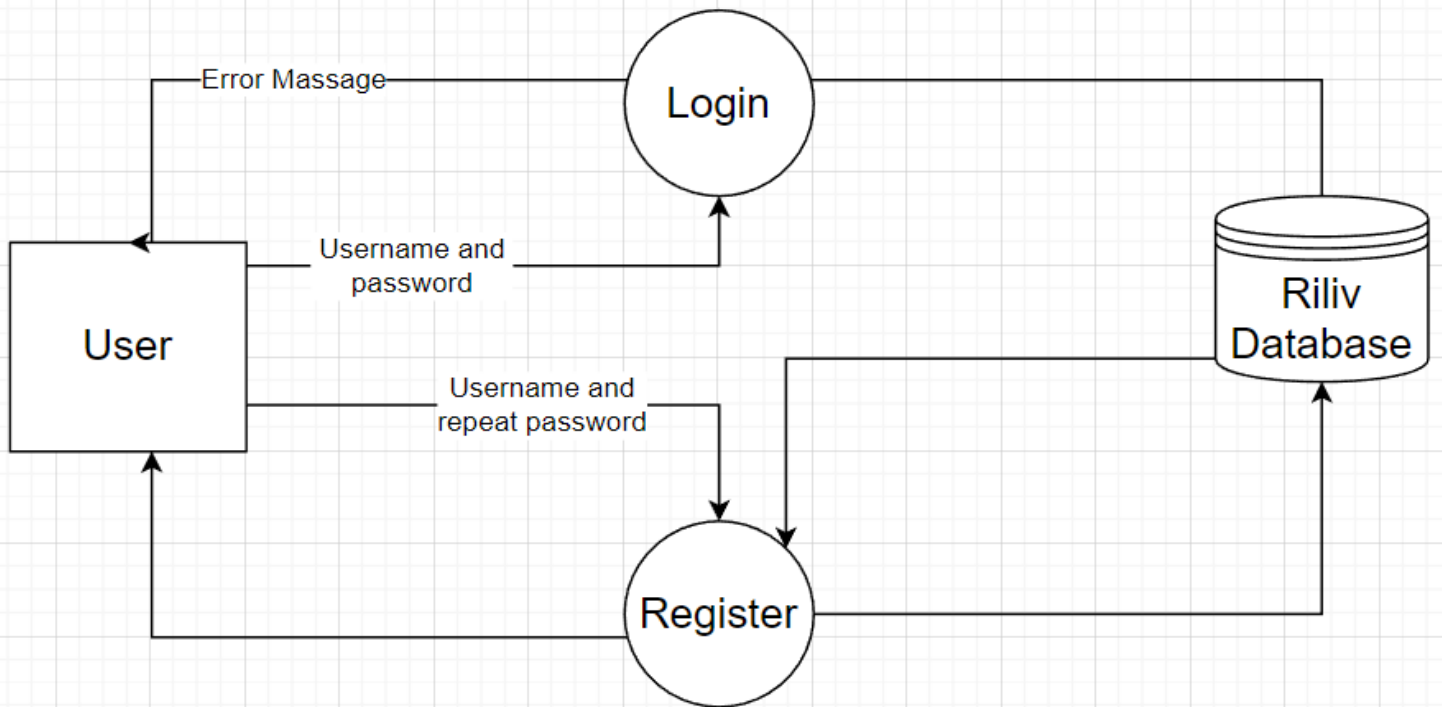
DATA DICTIONARY

- User Credentials: Username + Password
- New user credentials : Username + Email+ Password

User_Schema

username	email	password	confirm_password
.			

6)Functional Requirements

Functional requirement 1.1
TITLE: Web Browser

DESC: Computer system of user should contain a browser application to make web request to server of this application

Functional requirement 1.2
TITLE: User registration

DESC: The user must provide user-name, password, and e-mail address.

Functional requirement 1.3
TITLE: User log-in

DESC: Given that a user has registered, then the user should be able to log in to the mobile application.

Functional requirement 1.4
TITLE: Navigation

DESC: Given that a user is logged in / not login to the application, then the first page that is shown should be the home page. The user should be able to Navigate between different sub-modules.

7) Interface Requirements

This section provides a detailed description of all inputs and output interfaces. It also gives a description of software and communication interfaces and provide the existing user interface images

7.1) User Interfaces

The user interface of our web application is designed to be simple, intuitive, and user-friendly. When a user visits our website, the first page that they will see is the home page. The Home page is designed to provide users with an overview of the services that we offer and to help them navigate to different sections of the website.
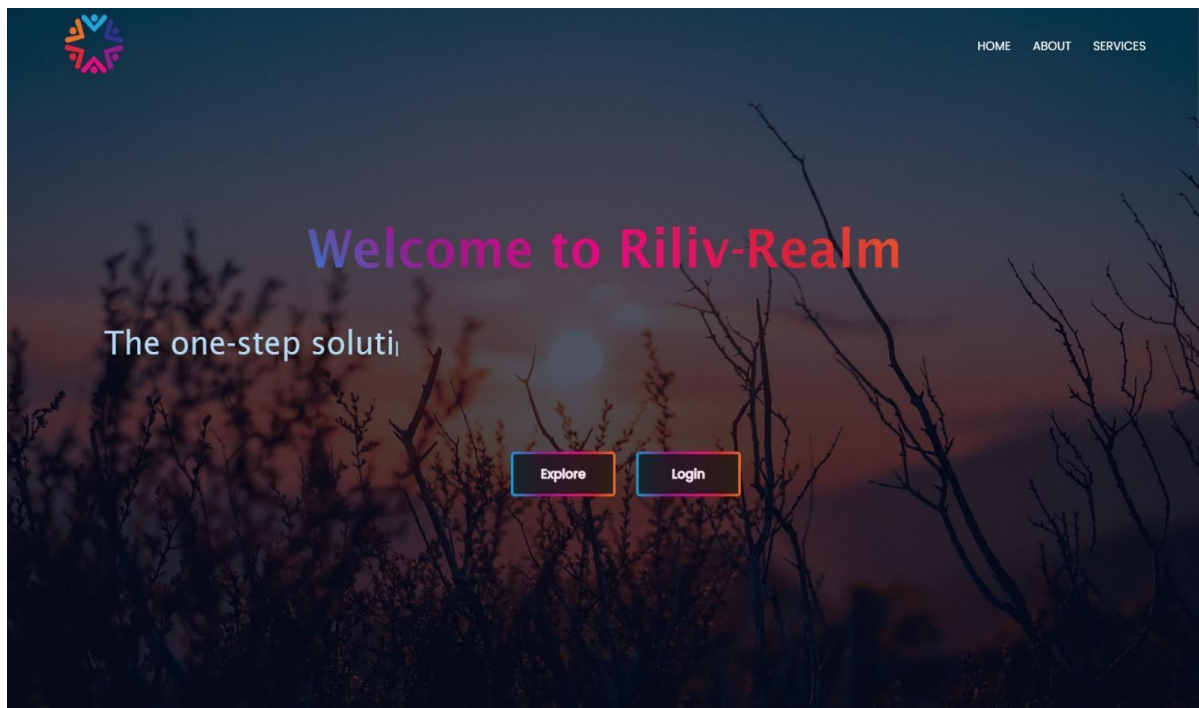
The Home page includes a button for Login/Sign in, which allows users to create an account or log in if they already have an account. This feature ensures that users can access their personalized self-help modules and track their progress over time.

In addition to the Login/Sign in button, the home page also includes an Explore

option. This option allows users to access different subsections of the home page, including About and Services. Users can access these subsections through the nav-bar option or by scrolling down the home page.
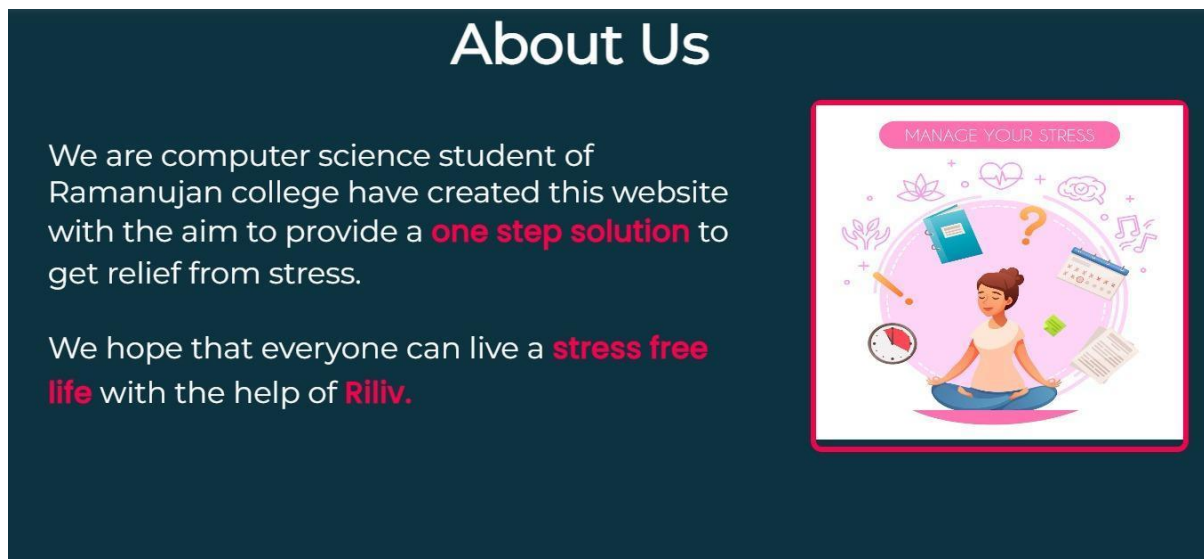
The About section provides users with more information about our web application, including our mission, vision, and values. This section also provides information about our team and the services that we offer.
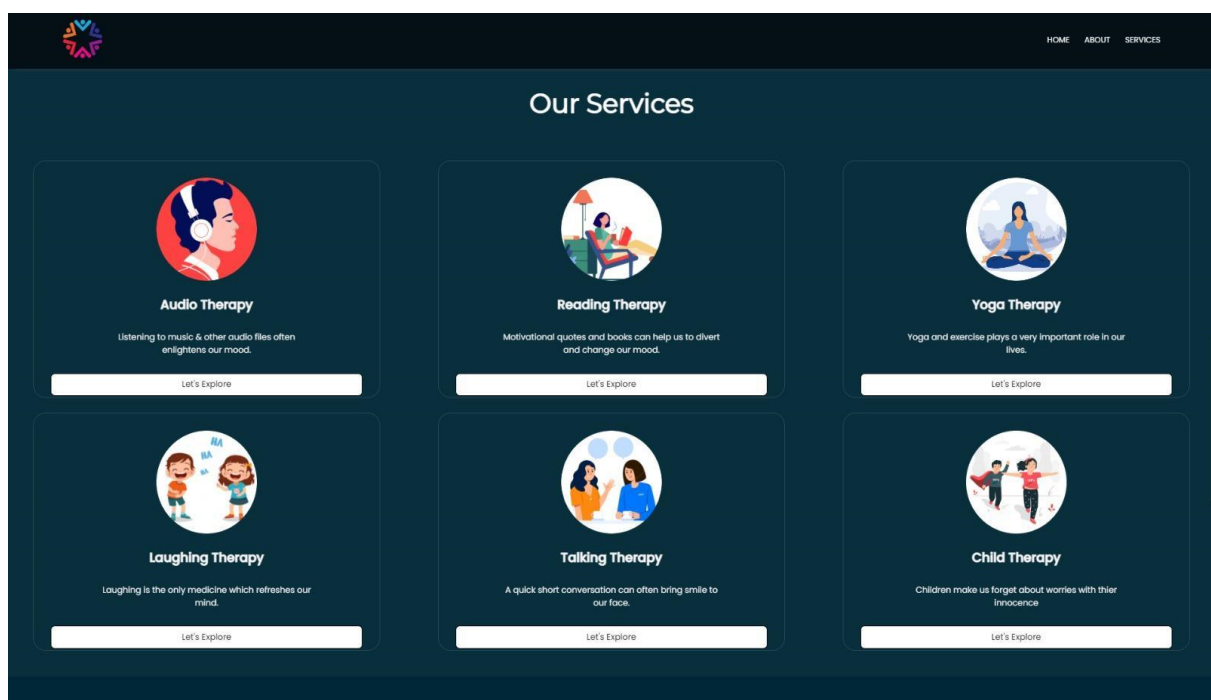
The Services section provides users with an overview of the self-help modules that we offer, including reading therapy, listening therapy, yoga therapy, and more. Users can click on each module to learn more about its features and

functionality.
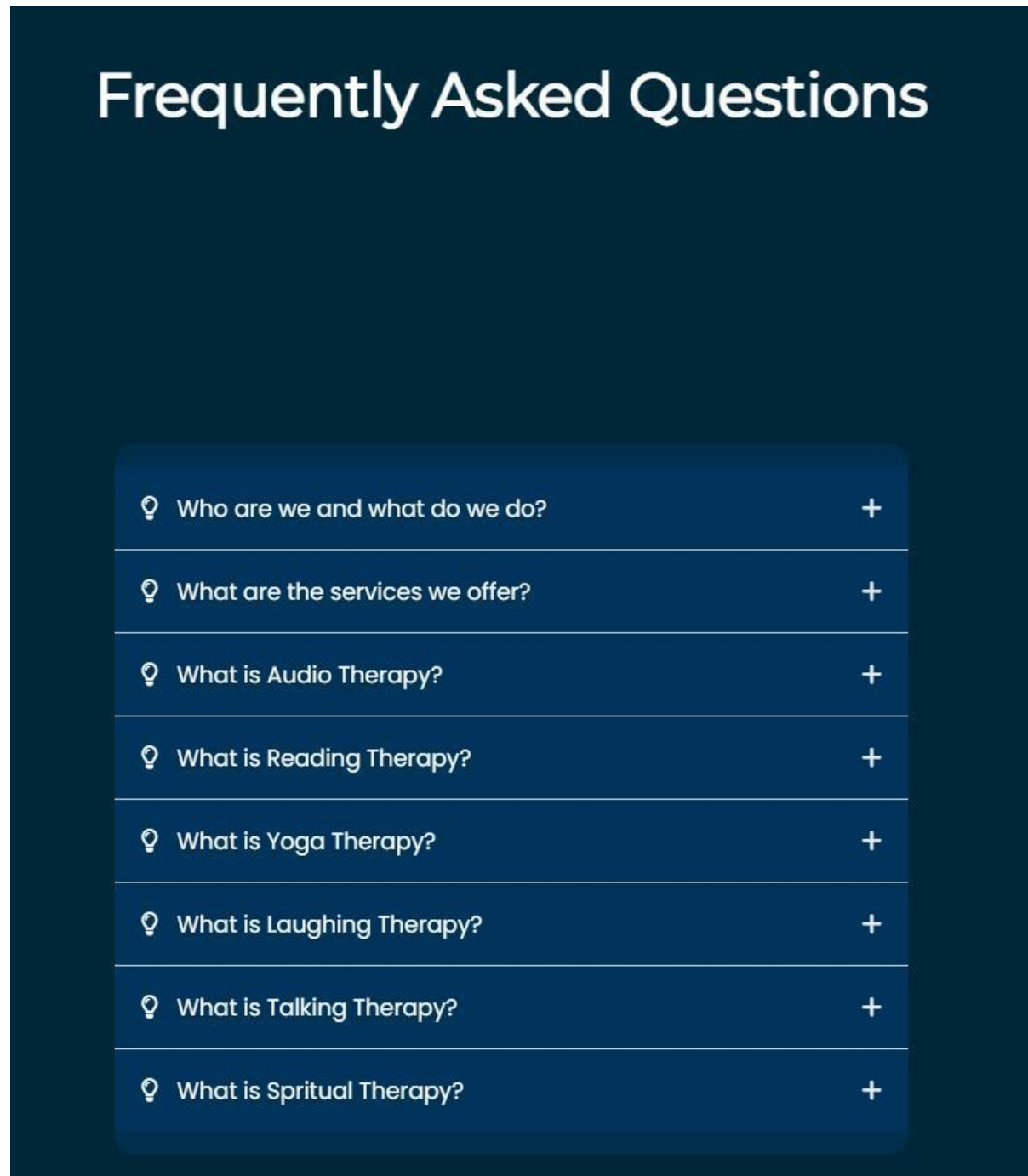
Finally, the home page includes a FAQ section. This section provides users with answers to common questions that they may have about our web application and its features.

Overall, the user interface of our web application is designed to be simple and intuitive, with clear navigation and easy access to the information and resources that users need. We believe that this approach will help users to engage with our web application more effectively and achieve their mental health and wellness goals.

8) Other Non-Functional Requirem

8.1) Performance Requirements

Performance should not be an issue because all our server queries involve small pieces of data. Changing screens will require very little computation and thus will occur very quickly.

Server updates should only take a few seconds as long as the phone can maintain a steady signal. The fare calculation algorithms used by in application will be highly efficient, taking only a fraction of a second to compute.

8.2) Safety Requirements

Safety requirements for our web application include ensuring compatibility with the latest version of web browsers. We also prioritize the security of our users' information by implementing appropriate measures, such as encryption for all backend databases and ensuring that passwords are not displayed in plain text. In addition, access to backend servers is restricted only to authenticated administrators. We aim to ensure that our application does not affect any data stored outside of our servers or other applications on the user's device. To promote user safety, we advise against using our application while operating a vehicle or in any other situation that requires the user's attention elsewhere.

8.3) Security Requirements

This application assumes that only the user or whoever he/she allows will have access to his/her Riliv account. With, only a Google email or user id address is required to verify the identity of the user upon opening the app. Since it is not connected to any payment transaction methods it and only used for look up this does not pose a threat to privacy violation.

The system shall automatically log out all customers after a period of inactivity.

The system shall not leave any cookies on the customer's computer containing the user's password.

The system shall not leave any cookies on the customer's computer containing any of the user's confidential information.

9) Gantt Chart

	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6
Task 1						
Activity 1	███	███				
Activity 2		███	███			
Activity 3		███	███	███		
Task 2						
Activity 1			███	███		
Activity 2			███	███	███	
Activity 3				███	███	███
Task 3						
Activity 1			███			
Activity 2				███		
Activity 3				███	███	
Activity 4					███	███
Activity 5					███	
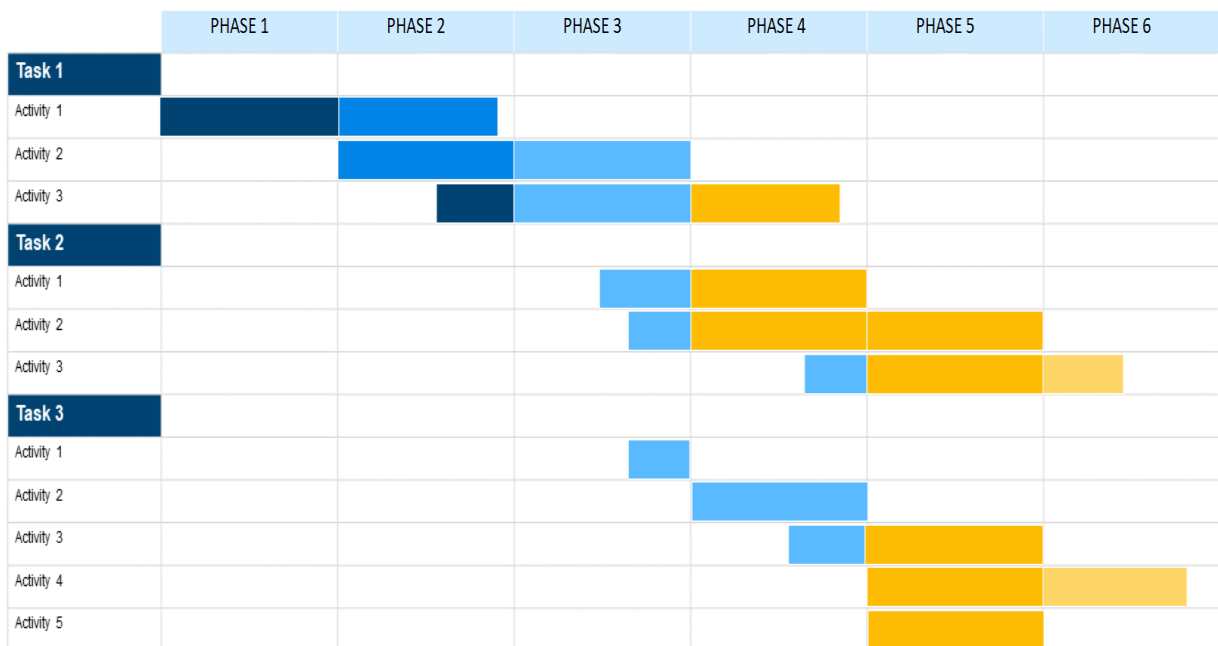
10) Size and Cost Estimation

1. Size Estimation

	Simple	Medium	Complex
External I/P	1	0	0
External O/P	1	0	0
Logical Interface	2	0	0
External Interface	0	0	0
External Enquiry	5	0	0

UFP = 1X3 + 1X4 +2X7 + 5X3

= 3 + 4 + 6 + 8 + 14 + 15

= 50

CAF = 0.65 + 0.01 X 14 X 3

= 1.07

FP = UFP X CAF
= 50 X 1.07
= 53.5
= 53 (approx.)

2. Cost Estimation

Screens - 7

Reports - 1

2 GL - 1

Object Point   = 7X2 + 7X1 + 1X10

= 14 + 7 + 10

= 31

NOP = Object Point X (1- reuse)

= 31 X (1-0)

= 31

Efforts = NOP/ PROD

= 31/13 = 2.38

NOP = New Object Point
PROD = Productivity
We assume nominal developer experience.

11) Flow Chart

Home

About   Our Services   FAQ

Audio Therapy   Reading Therapy   Yoga Therapy   Laughing Therapy   Talking Therapy   Child Therapy

Music

Podcasts

Audio Books

Articles

Motavitational Quotes

Videos

Summary Books

Benefits of Yoga

Asanas

Videos

About

Memes

Videos

About

Blogs

Videos

About

Images

Videos
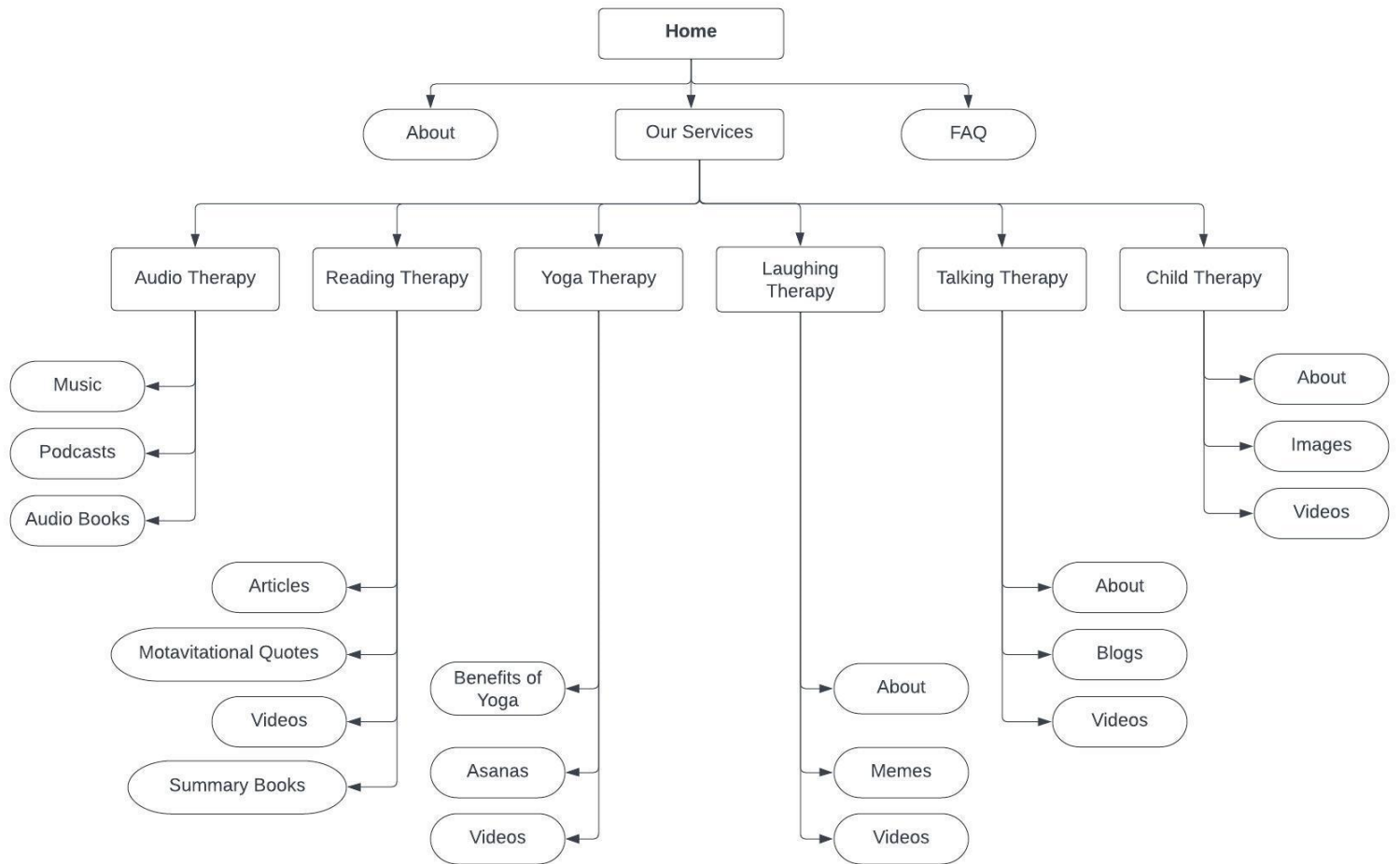
12) Risk Management

Sno.	RISK	CATEGORY	PROBABILITY	IMPACT	RMMM PLAN
1	Some team members leave the project development in between.	Technical risk	0%	2	Use backup staffs which knows what was going on in the project.
2	Delivery deadline tightened.	Project risk	30%	1	Team may use extra members to complete the task on schedule time.
3	Losing of all the project data. This may be caused by a hard disk being wiped out by a virus, hard disk failure etc.	Project risk	50%	2	Carry out necessary backup of database data, source code and documentation (using git & github).
4	Team dissension/lack of cohesion.	Project risk	20%	3	We could set some guide lines and rules how we deal with each other.

13) Testing

For our application, Riliv, we will conduct both alpha and beta testing and Integration Testing to ensure its functionality, usability, and performance meet user requirements and identify and fix any issues before its release.

1. Alpha Testing:

During the alpha testing phase, we tested the Riliv application's data and functionality in-house before it is released to the public. The aim of this phase is to identify any issues that may affect the application's performance or usability and fix them before its release.

Tasks that were performed during the alpha testing phase of Riliv are:

• Ensure that the application's interface is user-friendly and easy to navigate.

• Verify that the application is displaying correct data and information.

• Verify that the application is responsive and works well on different devices.

2. Beta Testing:

During the beta testing phase, Riliv was released to a limited number of users to test it in real-world conditions. The aim of this phase is to gather feedback on the application's usability, functionality, and performance in real-world conditions.

Tasks that were performed during the beta testing phase of Riliv are:

• Testers reported issues or bugs they encounter while using the application.

• Request testers to check the estimated time for different functionalities and compare them.

• Verify that the application is displaying the correct information about each functionality.

3. Integration testing

During integration testing, we tested the interaction between the frontend UI and the database, checking the communication between the two components. We tested the user input from the frontend and verified that it was successfully stored in the database. We also tested the retrieval of data from the database and ensured that it was displayed accurately on the frontend UI.

In addition, we also tested error handling during integration testing. We simulated various scenarios, such as incorrect user input or server errors, to ensure that the system responded appropriately and gracefully displayed error messages on the UI.

Overall, integration testing helped us to identify any issues or bugs in the communication between the frontend UI and the database, allowing us to fix them and ensure the smooth functioning of the application.

14) Tech Stack Used and References

The combination of the following technologies, frameworks, libraries and tools has enabled us to develop a robust and efficient website that is easy to use:

HTML: We used HTML (Hypertext Markup Language) to create the structure of the web pages.

CSS: Cascading Style Sheets (CSS) were used for styling the web pages and making them visually appealing.

JavaScript: We utilized JavaScript to add interactivity and functionality to the website.

AOS: used that allows you to apply different types of on scroll animations to elements

Bootstrap: We used Bootstrap, a popular front-end framework, to create a responsive and mobile-first design for the website.

Node.js: We used Node.js, a JavaScript runtime environment, for the backend development of the website.

Express.js: Used as the web application framework for Node.js

MongoDB: used (non-relational document database) that provides support for JSON-like storage. The MongoDB database has a flexible data model that enables you to store unstructured data, and it provides full indexing support, and replication with rich and intuitive APIs.

APIs: used that enable two software components to communicate with each other using a set of definitions and protocols.

We used several other web platforms such as Youtube, Spotify, Audible,Amazon, Artofliving and Healthyplace to get their content.

Geeksforgeeks:
https://www.geeksforgeeks.org/difference-between-java-and-javascript/

w3schools:
https://www.w3schools.com/whatis/whatis_ajax.asp

Node npm:
https://nodejs.dev/en/learn/an-introduction-to-the-npm-package-manager/

15) Conclusion

In conclusion, our web application based on meditation and relaxation therapy offers a range of self-help modules, including Reading Therapy, Listening Therapy, Laughing Therapy, Yoga Therapy, and more. The application is designed to provide users with a comprehensive set of resources and tools to improve mental health and wellbeing.

Through a combination of informative articles, motivational quotes, videos, and audio recordings, our application aims to help users manage stress, anxiety, and other mental health issues. With a user-friendly interface and responsive design, our application is accessible on desktop and tablet devices and will soon be available on mobile devices.

We believe that our application has the potential to help many people improve their mental health and wellbeing, and we are committed to continuously improving and expanding our platform to meet the needs of our users.