

## **CS 435 Human-Computer Interaction**

### **Project Task 3**

#### **Agent Based Interface**

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### 1. Low User Engagement:

- **Issue:** Users may lose interest or engagement with the platform over time, leading to reduced effectiveness in improving mental wellness.
- **Factors Contributing to the Issue:** Lack of interactive elements, absence of reminders or incentives to encourage regular usage, and limited visibility into progress and achievements.

### 2. Complex Questionnaire:

- **Issue:** A lengthy or complicated questionnaire may discourage users from completing it, hindering the accurate assessment of their mental state.
- **Factors Contributing to the Issue:** Overwhelming number of questions, confusing language or instructions, and lack of personalization in the questionnaire.

### 3. Lack of Personalization in Recommendations:

- **Issue:** Generic recommendations may not effectively address the specific needs and challenges of individual users.
- **Factors Contributing to the Issue:** Limited data analysis for personalized insights, reliance on one-size-fits-all recommendations, and inadequate consideration of user preferences.

### 4. Limited Accessibility:

- **Issue:** Users with disabilities may encounter barriers that prevent them from accessing and using the platform effectively.
- **Factors Contributing to the Issue:** Lack of accessibility features such as screen reader compatibility, keyboard navigation options, and visual contrast adjustments.

## Design issues

Our platform is designed to empower users to monitor and improve their mental state with tailored recommendations based on their unique needs and preferences. We explore the key areas that require attention. Addressing these will lead to a comprehensive and intuitive system for all people.

- **User Profiles:** Users should be able to create profiles to track their progress and access personalized recommendations.

- **Questionnaire:** A comprehensive questionnaire should be designed to assess the user's mental state accurately. This could include questions about stress levels, mood, sleep quality, etc.
- **Recommendation Engine:** Based on the questionnaire responses and historical data, the system should suggest personalized breathing exercises, physical activities, and meditation techniques tailored to the user's needs.
- **Progress Tracking:** Users should be able to see their progress and improvements over time, motivating them to continue with the recommended practices.

Addressing the design issues in our model will lead to several significant improvements and benefits for users such as Enhanced User Engagement, Improved User Experience, Personalization and Effectiveness, Accessibility and Inclusivity.

## **Prototype Overview:**

Our prototype aims to address the identified challenges and design issues in our mental wellness platform. By focusing on user engagement, simplifying the questionnaire, personalizing recommendations, ensuring accessibility, and incorporating essential features, we aim to create a comprehensive and intuitive system for all users.

## **Prototype Components:**

### **1. User Profiles:**

Users can create personalized profiles to track their progress and preferences.

Profile customization options include setting goals, preferences for activity types, and viewing past achievements.

Progress tracking charts and visualizations provide users with a clear overview of their mental wellness journey.

### **2. Questionnaire:**

A user-friendly questionnaire interface guides users through assessing their mental state accurately.

The questionnaire is structured to avoid overwhelming users with an excessive number of questions.

Clear language and instructions are provided, with tooltips available for clarification on specific questions.

### **3. Recommendation Engine:**

The recommendation engine analyzes questionnaire responses and historical data to generate personalized recommendations.

Recommendations include tailored breathing exercises, physical activities, and meditation techniques based on the user's needs and preferences.

Users can explore and customize their recommendations, with options to filter activities based on intensity, duration, and personal interests.

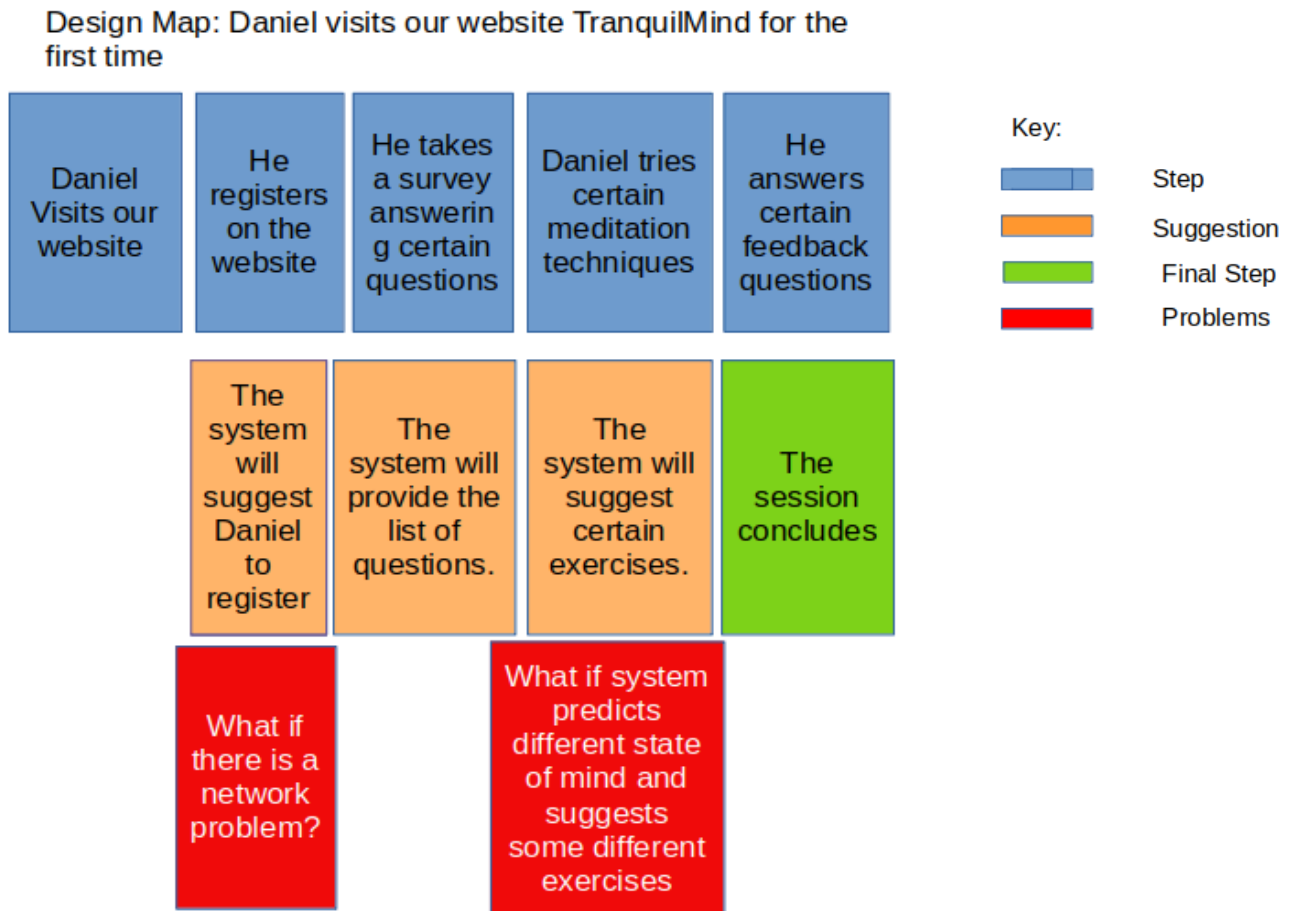
### **4. Progress Tracking:**

Progress tracking features enable users to monitor their mental wellness journey over time.

Visualizations showcase trends, achievements, and areas for improvement, motivating users to continue with recommended practices.

Goal-setting functionality allows users to set targets and milestones, with progress indicators and notifications to celebrate achievements.

## Design Map:



The various steps, suggestions, problems, and ideas are put in boxes coloured as per the key. The right way to read is from left to right and top to bottom in each step.

## Wireframe Sketches:

The hand drawn sketches for our website TranquilMind. It consists of the first page, Questionnaire, Exercise page.

## Home Page:

Home

Survey

Activity

" Some Quote "

## Questionnaire Page:

Question 1

☐A ☐B ☐C ☐D

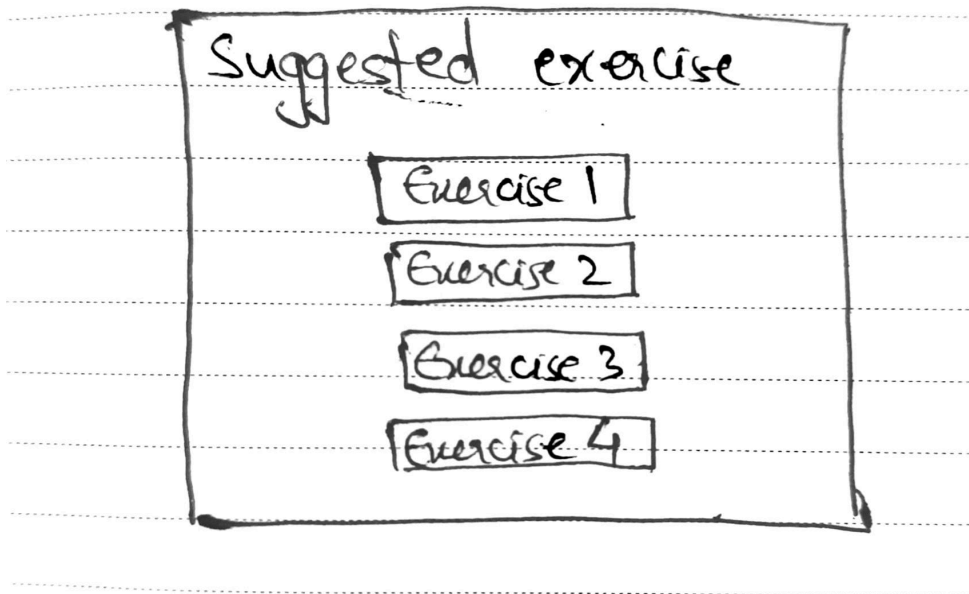
Question 2

☐A ☐B ☐C ☐D

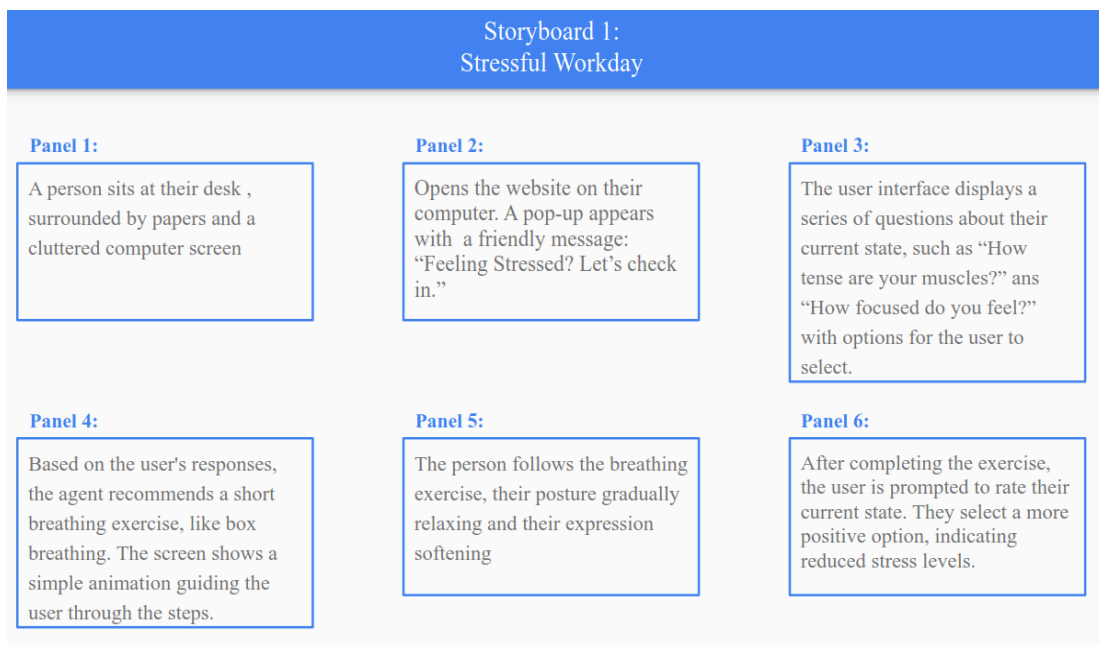
Question

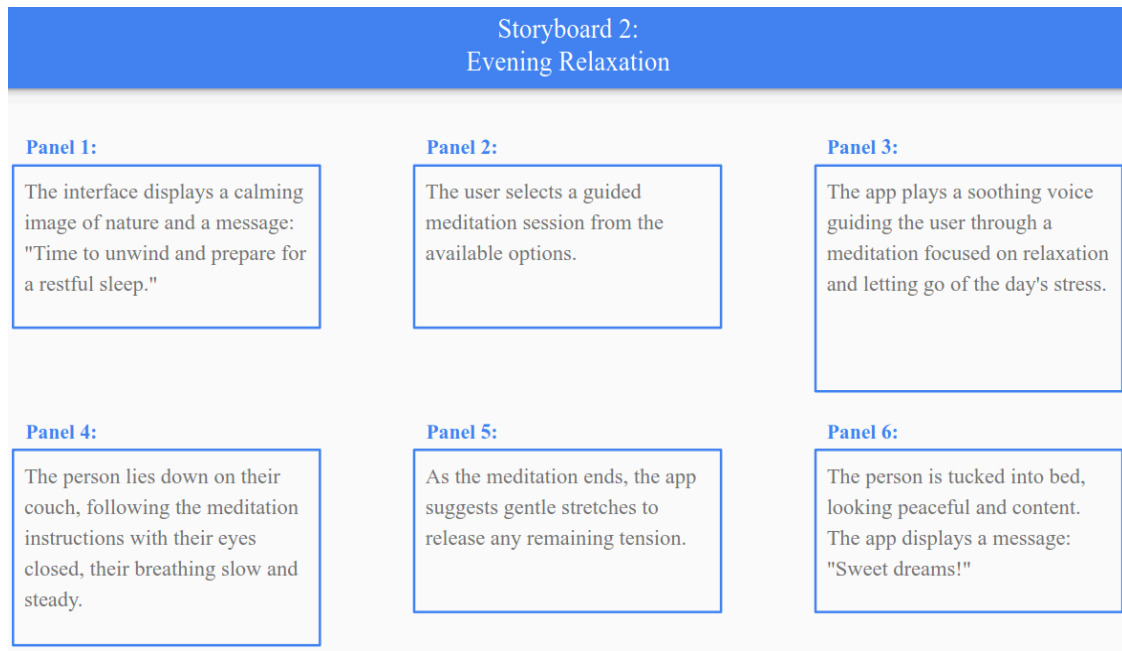
☐A ☐B ☐C ☐D

## Exercise Page:



## Storyboard:



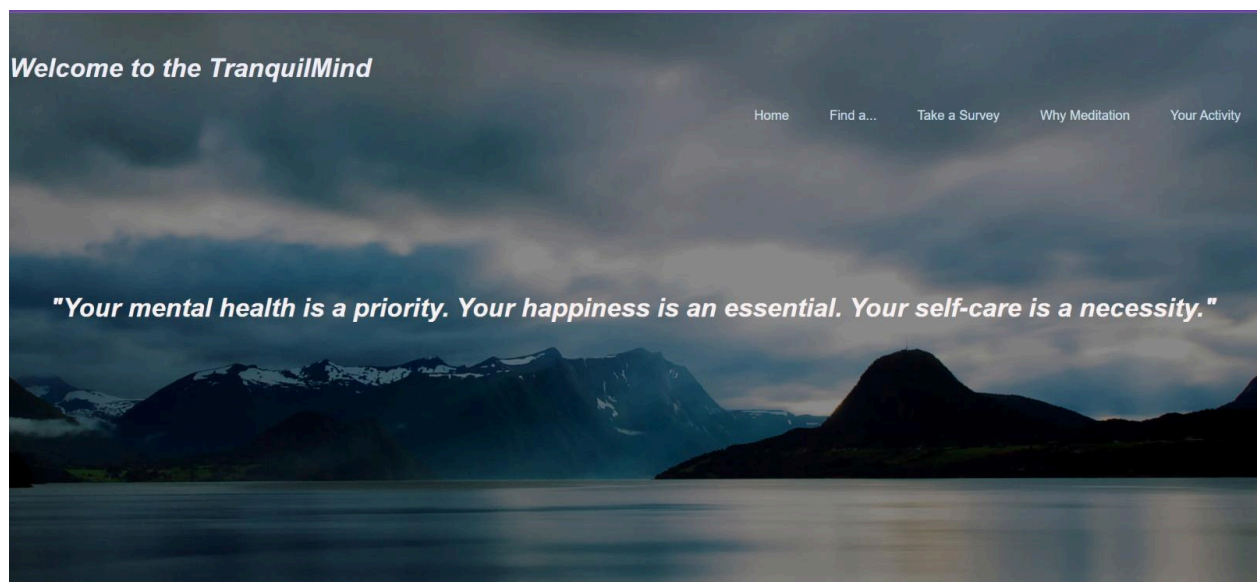


## High-fidelity Prototype:

This section includes the High - fidelity prototype with our website The TranquilMind. All important pages have been prototyped with limited functionality. Here are the screenshots of the pages.

This prototype can be accessed through the following link:

<https://gangaramsiddam.github.io/Tranqilmind.github.io/>





Welcome to the *TranquilMind*

[Home](#)   [Find a...](#)   [Take a Survey](#)   [Why Meditation](#)   [Your Activity](#)

Music

Wisdom

Videos

*"Your mental health is a priority. Your happiness is an essential. Your self-care is a necessity."*

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*"Your mental health is a priority. Your happiness is an essential. Your self-care is a necessity."*

NUTRITION

✓ Evidence Based

## 12 Science-Based Benefits of Meditation



Medically reviewed by  
Marney A. White, PhD, MS,  
Psychology — By Matthew  
Thorpe, MD, PhD and  
Rachael Ajmera, MS, RD —  
Updated on May 11, 2023

Meditation has been shown to offer many benefits. Although it's well known as a technique to reduce stress and anxiety, research shows that it may also help enhance your mood, promote healthy sleep patterns, and boost cognitive skills.

Meditation is the habitual process of training your mind to focus and redirect your thoughts.

The popularity of meditation is increasing as more people discover its many health benefits.

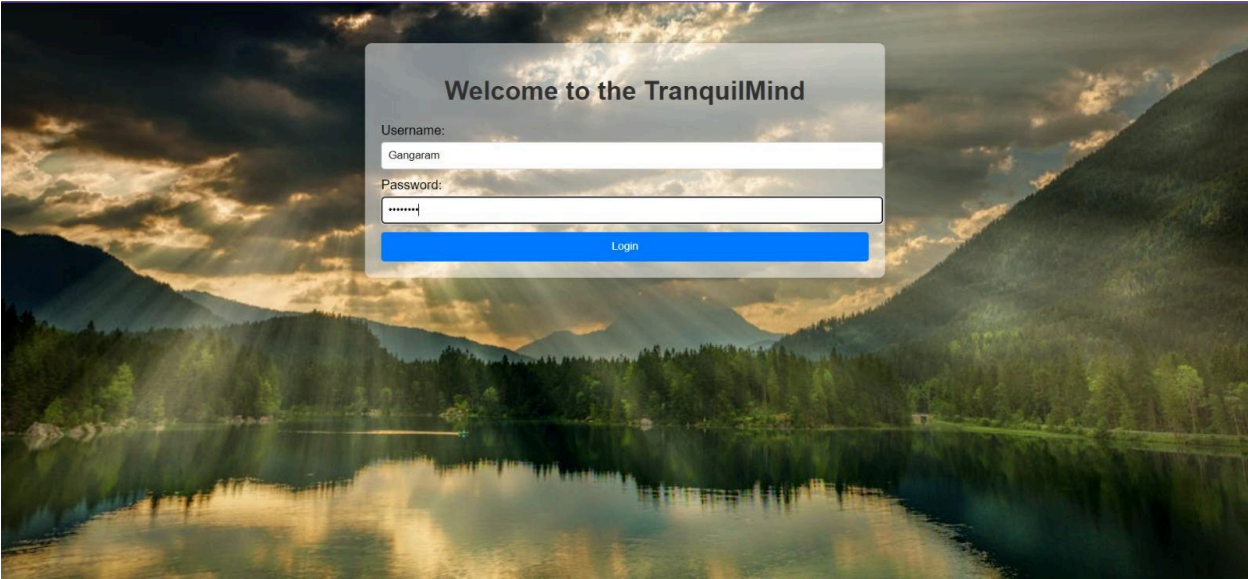
You can use it to increase awareness of yourself and your surroundings. Many people think of it as a way to reduce stress and develop concentration.

People also use the practice to develop other beneficial habits and feelings, such as a positive mood and outlook, self-discipline, healthy sleep patterns, and even increased pain tolerance.

Welcome to the *TranquilMind*

[Home](#)[Find a...](#)[Take a Survey](#)[Why Meditation](#)[Your Activity](#)

*"Your mental health is a priority. Your happiness is an essential. Your self-care is a necessity."*



6. I frequently experience Increased heart rate and blood pressure	1	2	3	4	5
7. I frequently experience Muscle tension or stiffness, particularly in the neck, shoulders, and/or back.	1	2	3	4	5
8. I frequently experience Shallow or rapid breathing.	1	2	3	4	5
9. I frequently experience Gastrointestinal issues such as stomachaches or nausea	1	2	3	4	5
10. I frequently experience Headaches or migraines	1	2	3	4	5
11. I frequently experience Sweating or clammy palms	1	2	3	4	5
12. I frequently experience Tremors or shaky hands	1	2	3	4	5
13. I frequently experience Dizziness or lightheadedness	1	2	3	4	5
14. I frequently experience Chest pain or tightness	1	2	3	4	5



10. I frequently experience Headaches or migraines

1 2 3 4 5

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1 2 3 4 5

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1 2 3 4 5

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1 2 3 4 5

14. I frequently experience Chest pain or tightness

1 2 3 4 5

15. I frequently experience Memory problems or forgetfulness

1 2 3 4 5

16. I frequently experience Decreased libido or sexual dysfunction

1 2 3 4 5

17. I frequently fall ill

1 2 3 4 5

Submit

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1 2 3 4 5

Submit

*Practice the Following:*

10 minutes yoga

Anulom - Vilom

Pranayama

15 Minutes  
meditation



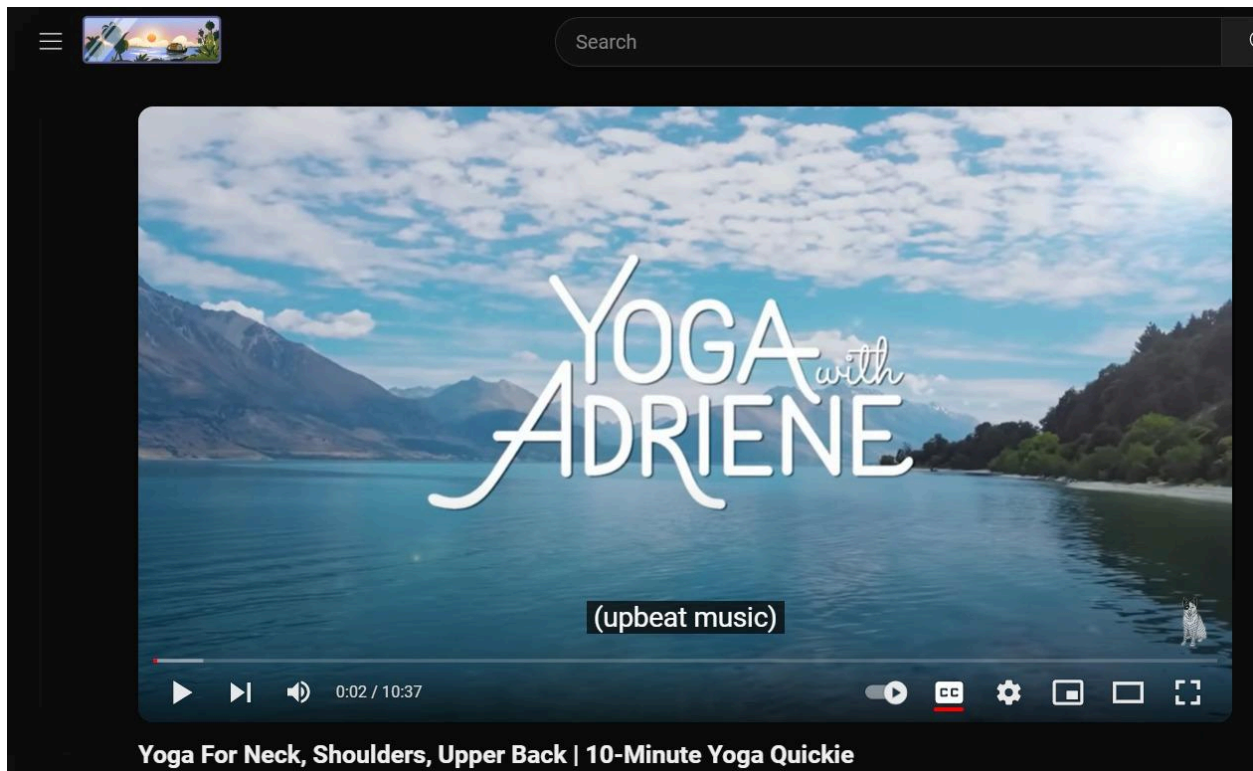
Practice the Following:

10 minutes yoga

Anulom - Vilom

Pranayama

15 Minutes  
meditation



The image shows a YouTube video player interface. At the top left is a hamburger menu icon and a small thumbnail of a yoga practice. To the right is a search bar with the text "Search". The main video area displays a scenic landscape with mountains and a lake, overlaid with the text "YOGA with ADRIENE" in a large, white, stylized font. Below the title, a black box contains the text "(upbeat music)". At the bottom of the video area is a progress bar showing "0:02 / 10:37" and various control icons (play, pause, volume, full screen, etc.). Below the video player, the video title "Yoga For Neck, Shoulders, Upper Back | 10-Minute Yoga Quickie" is displayed.

Search

YOGA with ADRIENE

(upbeat music)

0:02 / 10:37

Yoga For Neck, Shoulders, Upper Back | 10-Minute Yoga Quickie

Practice the Following:

10 minutes yoga

Anulom - Vilom

Pranayama

15 Minutes  
meditation

Menu YouTube Search

Welcome to Yoga with Adriene.

0:00 / 10:57

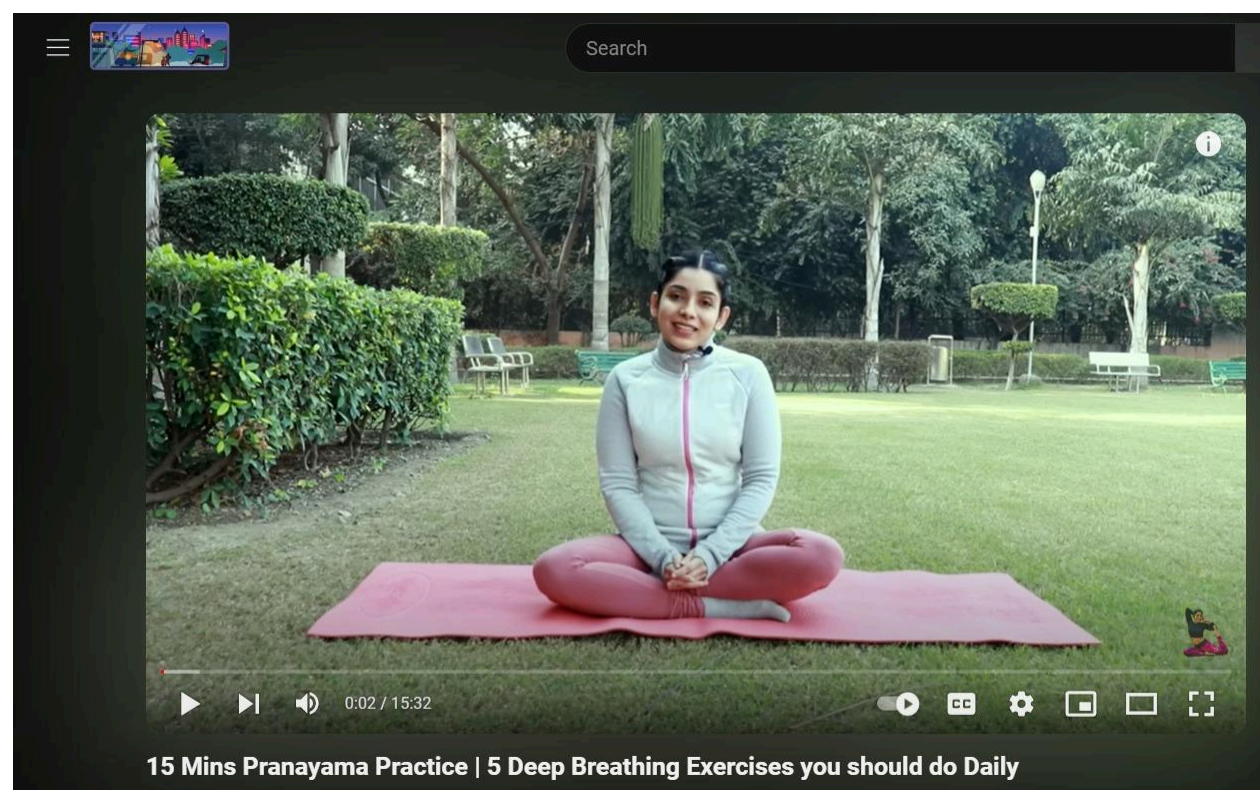
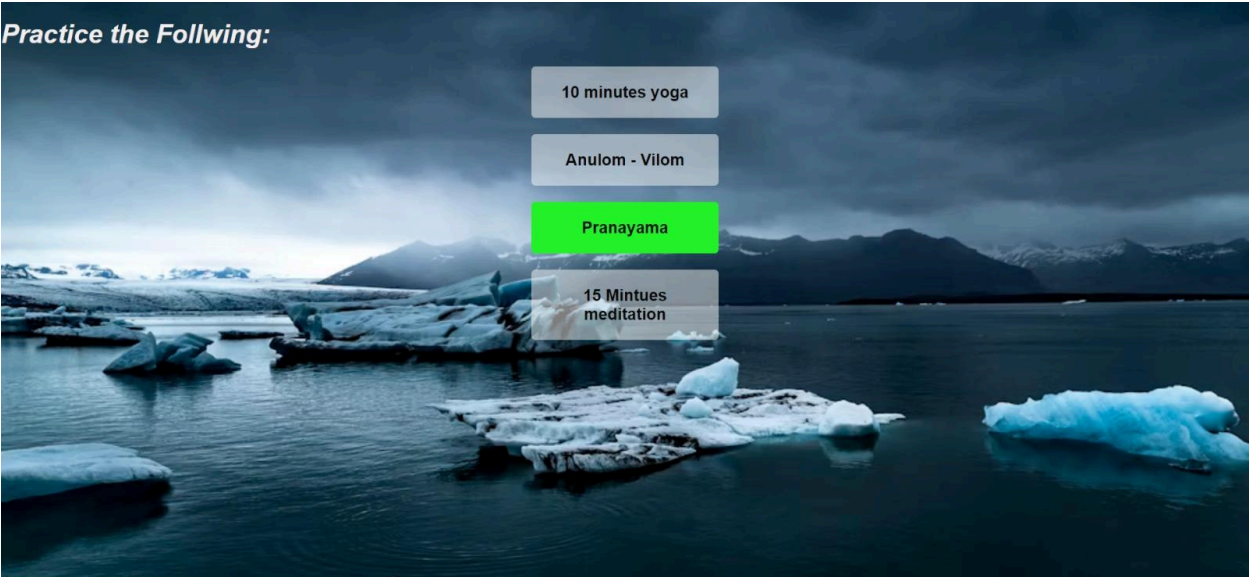
Yoga Breathing | Alternate Nostril Breathing

Yoga With Adriene 12.6M subscribers

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Practice the Following:

10 minutes yoga

Anulom - Vilom

Pranayama

15 Minutes  
meditation

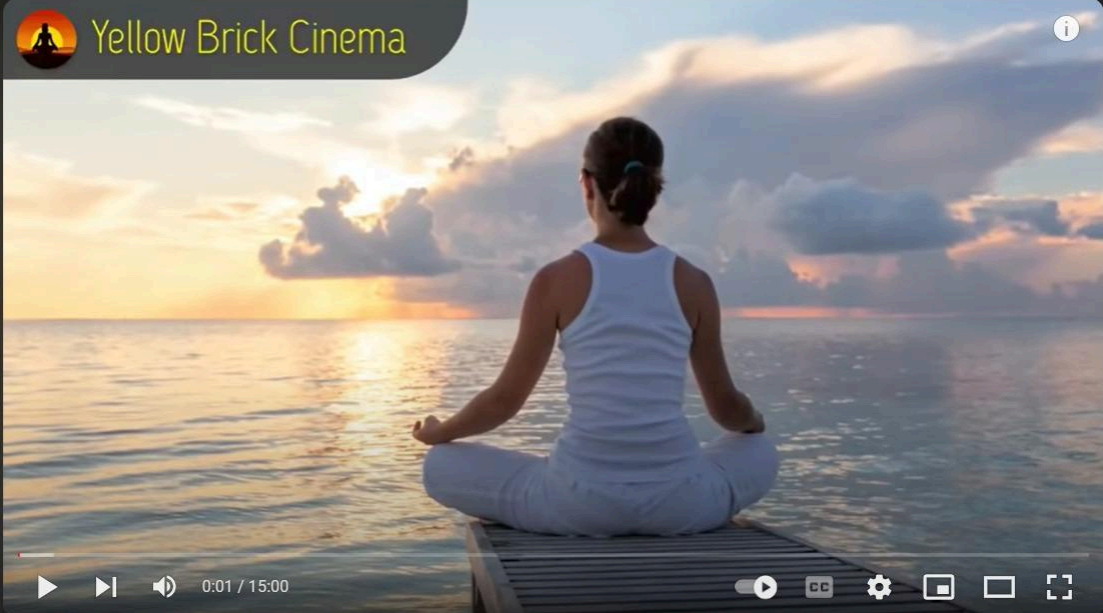
Menu icon: ☰

Search bar: Search

Yellow Brick Cinema

15 Minute Super Deep Meditation Music: Relax Mind Body, Inner Peace, Relaxing Music, 2563B

Video player controls: Play, Next, Volume, 0:01 / 15:00, Full Screen, CC, Settings, Download, Share

A person with their hair in a bun, wearing a white tank top and white pants, is sitting in a lotus position on a wooden pier. They are facing away from the camera, looking out at the ocean. The sun is setting on the horizon, creating a golden glow on the water and sky. There are some clouds in the sky. The video player interface is visible at the bottom, showing the title '15 Minute Super Deep Meditation Music: Relax Mind Body, Inner Peace, Relaxing Music, 2563B' and various control icons.

