

Assignment 1: Innovation and Project Management

19 May 2026 12:21

Student Name: Jessica De Schoolmeester

Student Number: (2503086)

Module Name: Changemakers: Creativity and Value Creation

Task 1 - Q.1

19 May 2026 11:50

Innovation

Innovation is the development and application of new ideas, technologies, and methods that create value by solving problems and improving everyday life. Throughout history, innovation has transformed society by changing how people communicate, work, travel, learn, and care for their health. From the discovery of fire and language to the development of computers and smartphones, each major innovation has improved quality of life and enabled society to adapt to new challenges. Unit 1 highlights that innovation is not a single event but an ongoing process that continually reshapes society through creativity and technological advancement [1].

One of the key concepts introduced in Unit 1 is that **innovation is everywhere**. Many everyday activities rely on technologies that were unavailable only a decade ago, including digital payments, cloud storage, wearable devices, online learning platforms, and mobile applications. These technologies have become integrated into daily life because they improve convenience, accessibility, and efficiency. Innovation is therefore no longer confined to scientific laboratories or large technology companies but is embedded within routine activities that support education, communication, employment, and healthcare [1].

The growing role of **digital health** demonstrates how innovation is increasingly focused on improving people's overall wellbeing. The World Economic Forum identifies digital health as one of the technologies transforming society by enabling individuals to access healthcare information, monitor their wellbeing, and receive personalised support through connected devices and mobile technologies [2]. Instead of relying solely on traditional healthcare services, individuals can now take a more active role in maintaining both physical and mental health. This shift highlights how innovation is expanding beyond treating illness to promoting prevention, healthy habits, and long-term wellbeing.

Creativity is another essential component of innovation. Unit 1 challenges the assumption that creativity is limited to artistic fields, explaining that it is a skill anyone can develop [1]. Modern society increasingly values people who can recognise patterns, understand user needs, and design meaningful solutions to complex problems—skills that go beyond technical expertise [3]. Creativity can be strengthened through curiosity, experimentation, and continuous learning, helping individuals generate new approaches to problem-solving [4]. These ideas are especially relevant in software engineering, where creating effective digital solutions requires both analytical thinking and imaginative problem-solving to meet user needs and deliver valuable experiences.

Many global challenges now require solutions that combine technological capability with an understanding of human behaviour and wellbeing. Innovation is increasingly aimed at improving quality of life and supporting healthier habits rather than focusing only on efficiency. This aligns with international perspectives that emphasise innovation's role in addressing societal needs and enhancing wellbeing [5]. This shows how software engineering can contribute to both technological progress and positive social impact.

As healthcare continues to evolve alongside advances in software engineering, new opportunities are emerging to design digital tools that promote healthier lifestyles, support behavioural change, and make wellbeing resources more accessible to diverse populations [2], [6].

Q.2

19 May 2026 12:06

Ideation

A range of project ideas were explored with a focus on creating value for society through software-based solutions. Each idea was evaluated based on its potential impact, relevance to user needs, and considered in terms of associated risks.

Idea 1: Medication Reminder Application

A mobile application designed to support users in managing their medication routines more reliably. The app would allow individuals to set personalised reminders for each medication, track doses taken, and receive alerts when it's time for the next one. By providing a clear schedule and simple tracking tools, the application helps reduce missed doses and minimises the chance of taking medication incorrectly. This improves day-to-day health management, especially for users with complex prescriptions or busy lifestyles. The overall aim is to make medication routines easier to follow and to promote better personal wellbeing through consistent adherence.

Idea 2: Budget Management Application

A personal finance application designed to help users monitor their spending, set achievable savings goals, and manage their budgets more effectively. The aim is to give users a clearer understanding of their financial habits while supporting long-term stability. Over time, the app encourages consistent financial awareness and helps users make informed decisions about their money. By offering simple tracking tools and goal-focused features, it can guide users toward major milestones such as saving for a home, planning future expenses, or building an emergency fund. The overall purpose is to empower users to take control of their financial wellbeing.

Idea 3: AI Health Chatbot

An AI health chatbot designed to give users general, non-diagnostic information about minor symptoms and everyday wellbeing concerns. The system would allow users to describe how they feel and receive basic guidance, such as whether self-care might be appropriate or if their situation may require professional medical attention. While this type of tool can improve accessibility to health information, it also carries significant risks. AI can misinterpret symptoms, provide overly general responses, or unintentionally give advice that users treat as medical instruction. This raises ethical concerns, as relying on automated guidance could delay proper diagnosis or treatment. Because of these risks, the chatbot must clearly communicate its limitations, avoid offering medical decisions, and consistently encourage users to seek qualified healthcare support when needed.

Idea 4: Mindfulness and Mental Wellbeing Application

A mobile application centred on supporting users mental wellbeing through simple, accessible tools such as guided breathing exercises, short meditation sessions, and mood-tracking features. The aim of the app is to help users build healthier emotional habits by encouraging regular reflection and providing calming techniques that can be used throughout the day. By allowing users to record their mood patterns over time, the app can offer insights into triggers, routines, and behaviours that may influence their wellbeing. The overall focus is on creating a supportive digital space that promotes mindfulness, reduces stress, and encourages users to engage in consistent self-care practices.

Selected Idea

The mindfulness and mental wellbeing application was chosen because it aligns strongly with the

growing need for accessible mental health support in everyday life. Among all the proposed ideas, this concept offered the most meaningful balance between user benefit and realistic development scope. It provides a chance to create a tool that can genuinely support users through features like guided breathing, meditation, and mood tracking, without introducing the high ethical risks associated with medical or diagnostic systems. Its technical demands are achievable for a solo developer while still offering room for creativity and impactful design. Overall, it presents the most suitable and responsible direction for the project.

Selected Project Title

NeuAura: A Mobile Application for Mindfulness and Mental Wellbeing Support

Aim

To design and develop a mobile mindfulness application that helps users manage stress and improve mental wellbeing through guided mindfulness activities, breathing exercises, and emotional awareness features.

SMART Objectives

- **Specific:** To design and develop a prototype mindfulness application while developing the relevant software development skills needed to create user interfaces.
- **Measurable:** To produce a working prototype demonstrating key features such as navigation between screens, a basic mindfulness exercise (e.g. breathing or meditation timer), and simple mood tracking input.
- **Achievable:** To use development tools such as React native alongside online learning resources to gradually build the technical skills required for mobile application development.
- **Relevant:** To improve my understanding of software engineering practices and gain practical experience in designing and developing a mobile application that supports mental wellbeing and stress management.
- **Time-bound:** To complete the learning process, design work, and initial implementation, alongside a reflective evaluation of the skills gained.

Project Description

NeuAura is a mobile mindfulness application designed to support users in managing stress, anxiety, and overall mental wellbeing through accessible digital mindfulness practices. The prototype will focus on implementing core features such as guided breathing exercises (including box breathing), guided meditation, mood tracking to encourage users to build healthy daily habits and improve emotional awareness.

The application is designed with scalability in mind, providing a strong foundation for future enhancements as technical skills develop and user requirements evolve. While the initial prototype will focus on core mindfulness features, there is significant scope for the application to grow through the addition of more advanced functionality.

Q.3

19 May 2026 12:07

Research

Listed below are the sources that will be used throughout the project to support the successful development of the **NeuAura** mindfulness app and achieve the project objectives. These courses and resources will help build technical skills, enhance understanding of app development, and support the overall product development process.

- **React Native Tutorial for Beginners – Build a React Native App (YouTube)** [Bing Videos](#)
A beginner-friendly tutorial that provides practical guidance on building mobile applications with React Native
- **React Native Essential Training (LinkedIn)** [React Native Essential Training Online Class | LinkedIn Learning, formerly Lynda.com](#)
Develop React Native skills and learn best practices for app development.
- **Figma for UX Design (LinkedIn)** [Figma for UX Design Online Class | LinkedIn Learning, formerly Lynda.com](#)
Learn how to design and prototype the NeuAura app with a user-friendly interface.
- **TypeScript Tutorial (W3schools)** <https://www.w3schools.com/typescript/index.php>
Learn the fundamentals of TypeScript, including syntax, data types, functions, and object-oriented programming to support React Native development.

Task 2 - Q.1

19 May 2026 11:50

Project Scope

This project will focus on the initial implementation of NeuAura, a mindfulness mobile application designed to support users' mental wellbeing through features such as guided meditation, breathing exercises, mood tracking, and personalised mindfulness content.

Proposed Solution

Digital mental health and wellbeing applications are rapidly growing in today's modern world, gaining increased attention from healthcare professionals, support services, and individuals. These applications have become successful in providing convenient, flexible, and accessible support whenever it is needed. [7]

In a world where accessible wellbeing apps already exist, the solution is to ensure **NeuAura** improves on current applications by incorporating more personalised experiences and enhanced mood tracking. The app will allow users to monitor their emotional wellbeing through visual mood graphs, helping them identify patterns and track progress over time. By using this information, NeuAura can provide more tailored mindfulness activities based on the user's needs, preferences, and wellbeing goals. This personalised approach aims to create a more engaging and effective mindfulness experience compared to existing generalised solutions.

Required Technologies/Resources

The project will use Visual Studio Code as the development environment, Figma will be used to design and prototype the user interface, React Native for app development, and TypeScript as the programming language while Expo Go will support testing. Online learning resources from YouTube, LinkedIn Learning and W3Schools will support technical development.

Project Timeline and Task Schedule

Project Stage & key tasks	Start Date & End Date
Idea Selection	19/05/2026 – 02/06/2026
Aim & SMART Objectives	02/06/2026 - 09/06/2026
Gathering Resources and Tools to be used for the project	02/06/2026 -16/06/2026

Risk Analysis	16/06/2026-18/06/2026
Design implementation	18/06/2026-23/06/2026
Prototype/initial implementation Development	23/06/2026-30/06/2026
Feedback on initial implementation	30/06/2026 - 07/07/2026

Gantt Chart

A Gantt chart was created to organise project tasks, allocate timeframes, and monitor progress throughout the development process. A Gantt chart helps ensure that milestones are achieved on schedule and the layout provides clear overview of the project's timeline and workload.



Q.3

Tuesday, June 09, 2026 4:14 PM

Risks & Challenges

Below are the risks and challenges identified throughout the project. The table presents each potential risk on the left, the possible impact it may have on the project in the middle, and the mitigation strategies used to reduce or manage these risks on the right. This structure helps clearly highlight how each issue could affect progress and what actions were taken to minimise disruption. When requirements are vague, incomplete, or poorly organised, the project becomes far more vulnerable to misunderstandings, delays, and technical risks. [8]

Development delays	Medium	Create a realistic schedule using Gantt chart and monitor progress
Resources	High	Relevant resources will be found and used to develop skills to complete the project, before and during project process
Technical issues	Medium	Conduct regular testing and review code throughout development
Scope creep	Medium	Focusing on requirements and feedback and not running out of scope
Lack of user Feedback	High	Gather feedback from test users during development
Users relying on the app instead of seeking professional advice	High	Including clear disclaimers stating the app is not a medical device and does not provide professional diagnosis or treatment.

Task 3 Q.1

Thursday, July 09, 2026 4:44 PM

Development method

The development method chosen for the NeuAura mindfulness app is Agile, as it divides the project into manageable tasks and supports continuous improvement throughout the development process. Agile enables quick changes and adaptations, making it a highly flexible approach that suits projects where requirements may evolve over time. This flexibility is particularly valuable for NeuAura, as wellbeing-focused applications often require iterative refinement based on user feedback and behavioural insights. Agile is also widely adopted by major technology companies due to its adaptability and strong emphasis on client-focused development, demonstrating its effectiveness in delivering high-quality digital products [9].

For a wellbeing-focused application like NeuAura, this flexibility is essential, as features such as guided breathing sessions, mood tracking, and personalised reminders often require iterative refinement to ensure they remain effective and user-friendly.

To organise and track progress, a Kanban board will be used, which visually represents tasks in columns such as “To Do,” “In Progress,” and “Completed.” This makes it easy to monitor workflow, prioritise tasks, and ensure steady progress without becoming overwhelmed. [10] Kanban complements Agile by supporting continuous delivery and helping maintain clarity throughout development.

Although the Agile methodology is commonly used by large teams, its emphasis on adaptability, responsiveness, and user-centred design makes it equally valuable for individual developers. For NeuAura, this approach ensures a flexible, structured, and user-focused development process. [9]

Q.2

Thursday, July 09, 2026 4:46 PM

Design Work

For this project, a flowchart and a low-fidelity wireframe were used to create the main design, as they are the most suitable for developing a wellbeing app like NeuAura. The flowchart outlines the user journey and shows how key features - such as mood tracking, breathing exercises, and meditation features connect logically throughout the app. The low-fidelity wireframe provides a simple visual layout of each screen, helping plan navigation and interface structure without focusing on detailed styling. Together, the design tools chosen support clear planning which is essential for developing a mindfulness app.

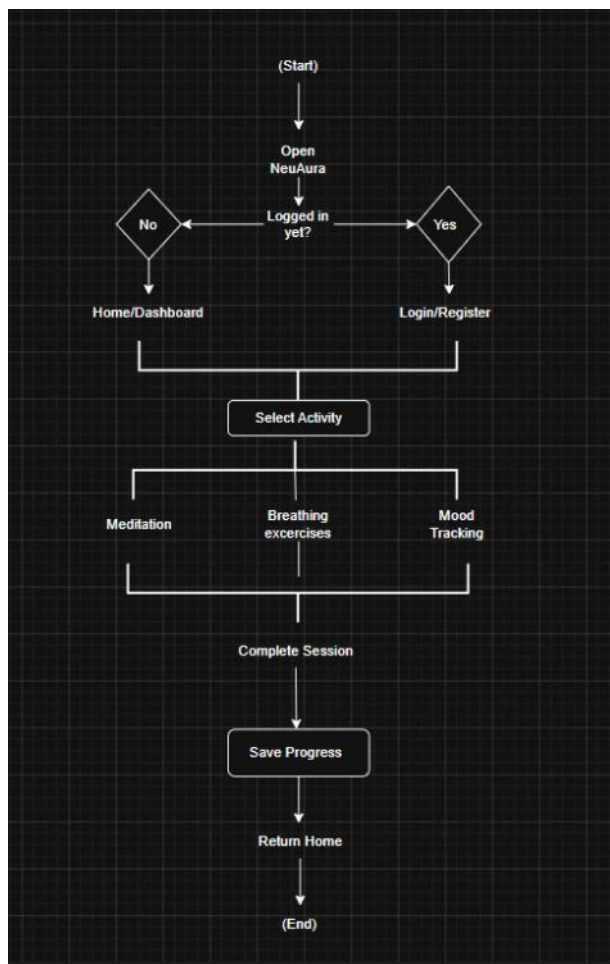


Figure above showing flow chart designed on draw.io

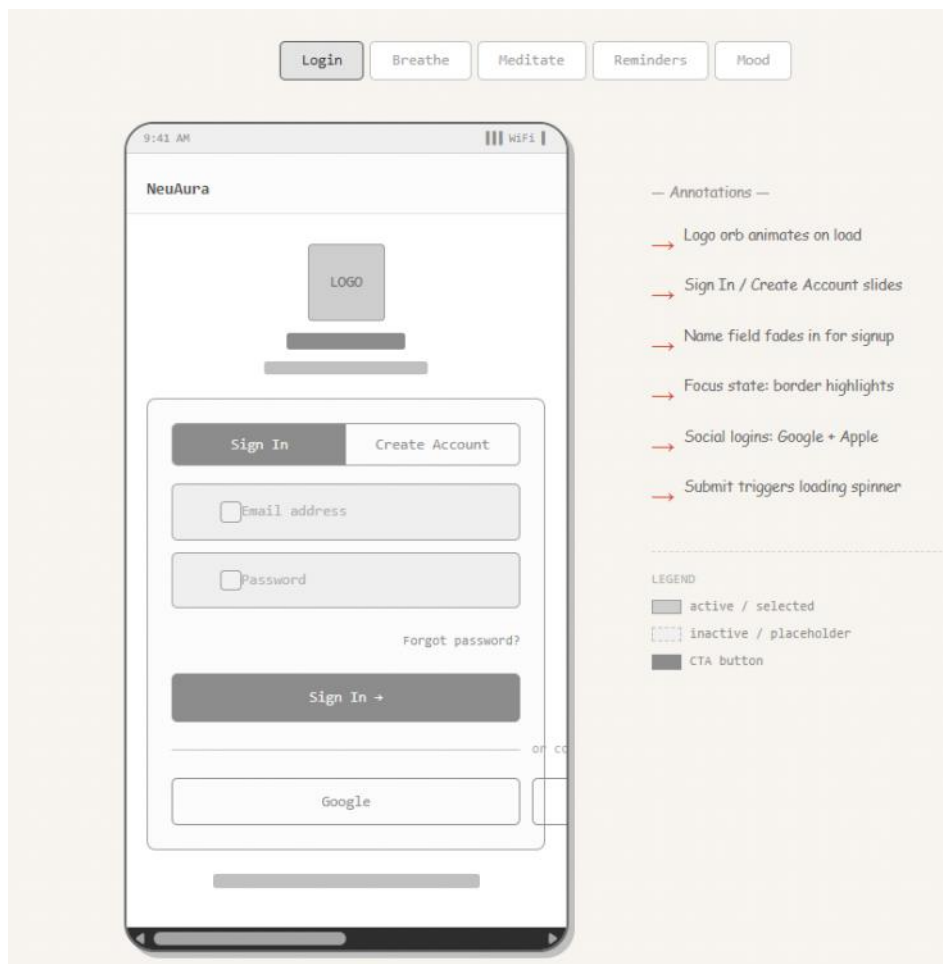


Figure showing wireframe created in Figma

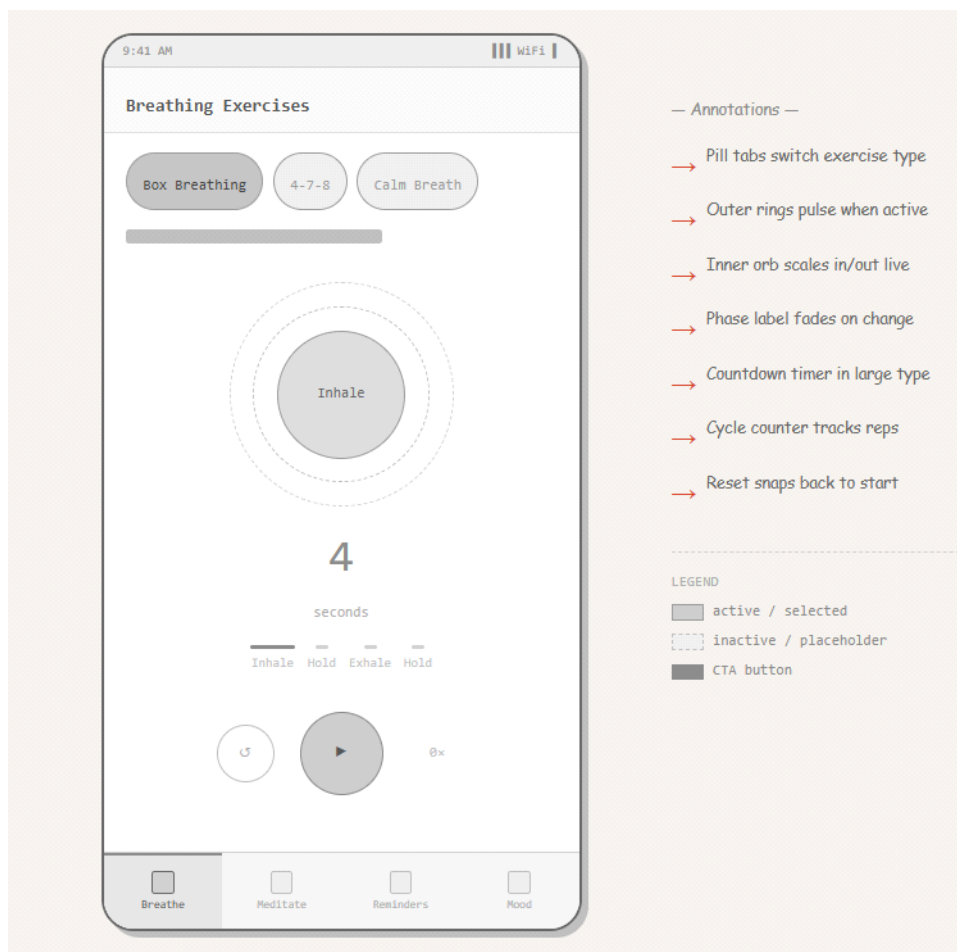


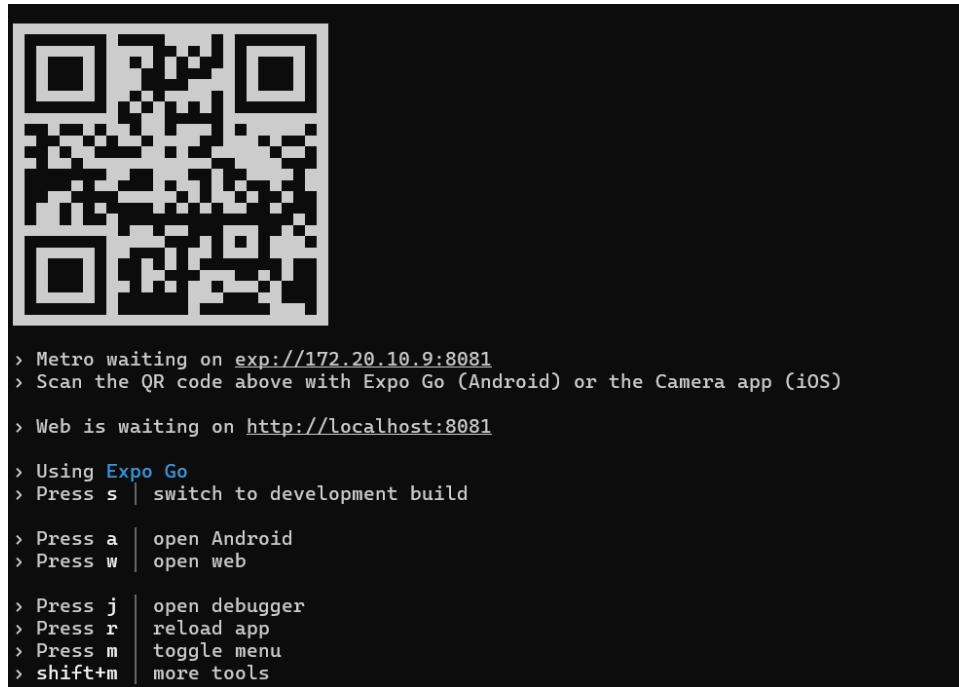
Figure showing breathing exercise page layout

Q.3

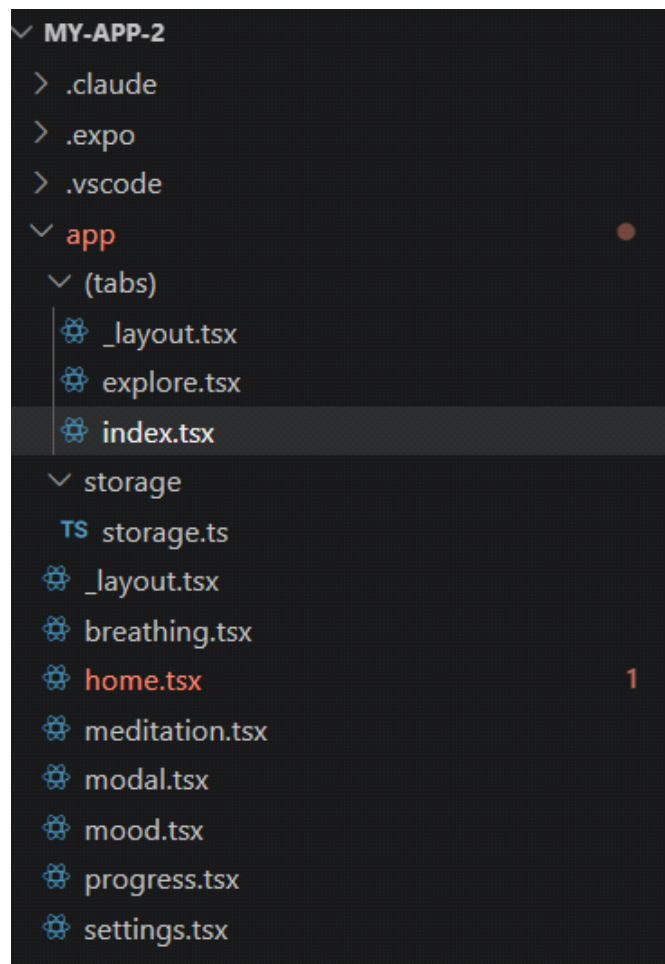
Thursday, July 09, 2026 4:46 PM

Initial practical implementation

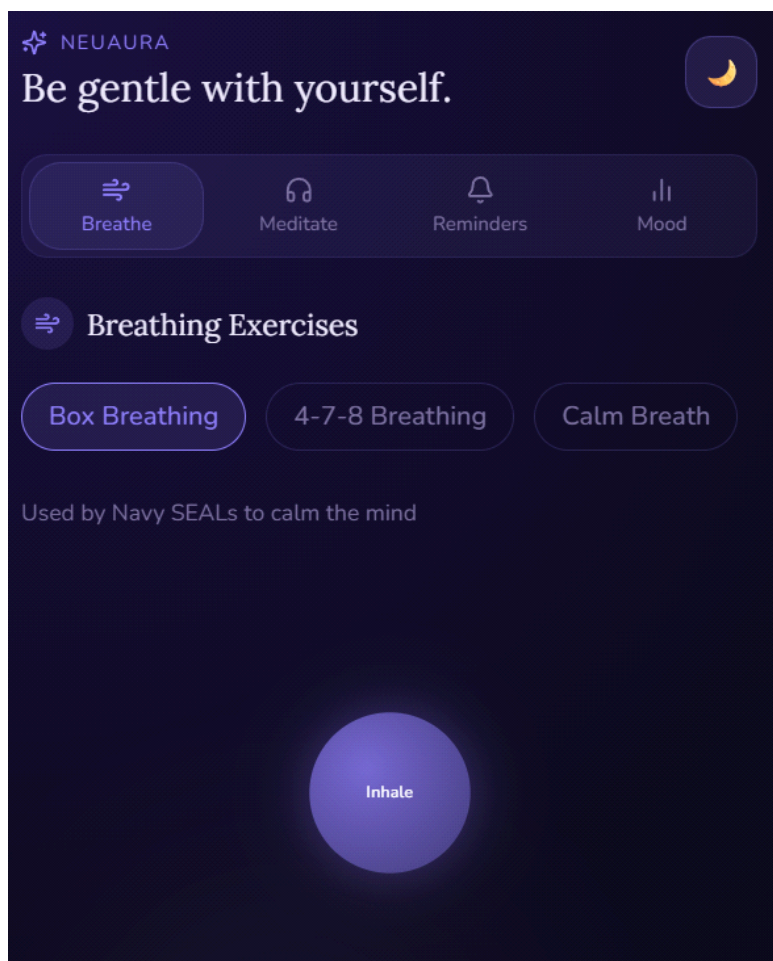
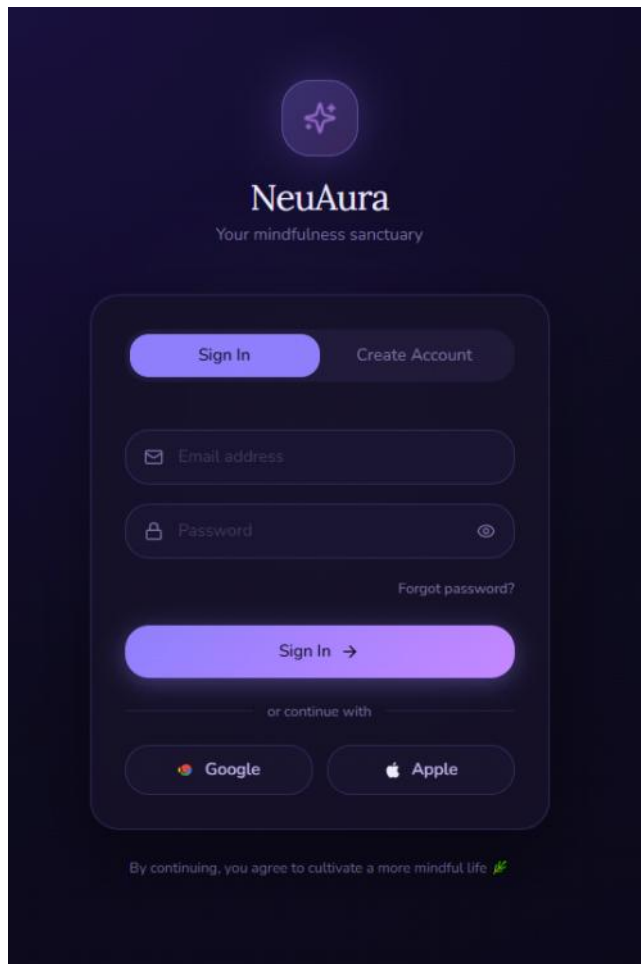
The image below demonstrates the implementation of **Expo**, a development platform used to build, test, and debug the NeuAura application. Expo enables developers to preview the app on a mobile device or emulator, allowing features to be tested in real time, bugs to be identified, and improvements to be made efficiently throughout the development process before deployment.



Below shows the development environment set up in Visual Studio Code, with all pages linked to the components that will be implemented within the app.



Figma was used to create and test the user interface (UI) design, allowing different layouts and warm colour schemes to be explored. This helped establish a visually appealing and consistent design that aligns with the calming and relaxing purpose of the application.



The initial implementation of the code was completed during this stage, focusing on developing the foundation of the application and beginning the creation of the Login page using Typescript.

```
5 import { useState } from "react";
6 import { Pressable, StyleSheet, Text, TextInput, View }
7
8
9 export default function LoginScreen() {
10   const [email, setEmail] = useState("");
11   const [password, setPassword] = useState("");
12   const [isLogin, setIsLogin] = useState(true);
13
14   return (
15     <LinearGradient
16       colors={['#0B0719', '#120A2A', '#1A0F3D']}
17       style={styles.container}
18     >
19       /* Header */
20       <View style={styles.header}>
21         <View style={styles.logoBox}>
22           <Ionicons name="sparkles" size={28} color="#1A78BF
23         </View>
24         <Text style={styles.title}>NeuAura</Text>
25         <Text style={styles.subtitle}>Your mindfulness sanctu
26       </View>
27       /* Card */
28       <BlurView intensity={25} style={styles.card}>
29         /* Toggle */
30         <View style={styles.toggleRow}>
31           <Pressable
32             onPress={() => setIsLogin(true)}
33             style={styles.toggleBtn, isLogin && styles.active
34           </Pressable>
35         </View>
36       </BlurView>
37     </LinearGradient>
38   );
39 }
```

References

19 May 2026 14:21

[1] Unit 1 – “What’s the Problem? Innovation is Everywhere,” Changemakers: Creativity & Value Creation Module, University Learning Materials, 2026. [Accessed: May, 2026]

[2] “Deep Shift: Technology Tipping Points and Societal Impact,” 2015. Available: <https://www.weforum.org/publications/deep-shift-technology-tipping-points-and-societal-impact/>. [Accessed: June, 2026]

[3] T. R. McDaniel and D. H. Pink, “Review of A Whole New Mind: Why Right-Brainers Will Rule the Future,” vol. 81, no. 3. in The Clearing house, no. 81, vol. 81. Heldref, Washington, pp. 141–142, 2008. doi: 10.3200/TCHS.81.3.141-14 [Accessed: June, 2026]

[4] T. Kelley and D. Kelley, Creative confidence : unleashing the creative potential within us all. London: William Collins, 2014. [Accessed: June, 2026]

[5] OECD, The Innovation Imperative: Contributing to Productivity, Growth and Well-Being. Paris, France: OECD Publishing, 2015. [Accessed: June, 2026]

[6] K. Schwab, The Fourth Industrial Revolution. Geneva, Switzerland: World Economic Forum, 2016. [Accessed: June, 2026]

[7] L. Murase, “10 Apps to Get You Started with Digital Mental Health - eMHprac,” Apr. 06, 2025. Available: <https://www.emhprac.org.au/news/10-apps-to-get-you-started-with-digital-mental-health/>. [Accessed: July, 2026]

[8] “10 Software Development Risks [+ Expert Mitigation Strategies].” Available: <https://clockwise.software/blog/software-development-risks/>. [Accessed: July, 2026]

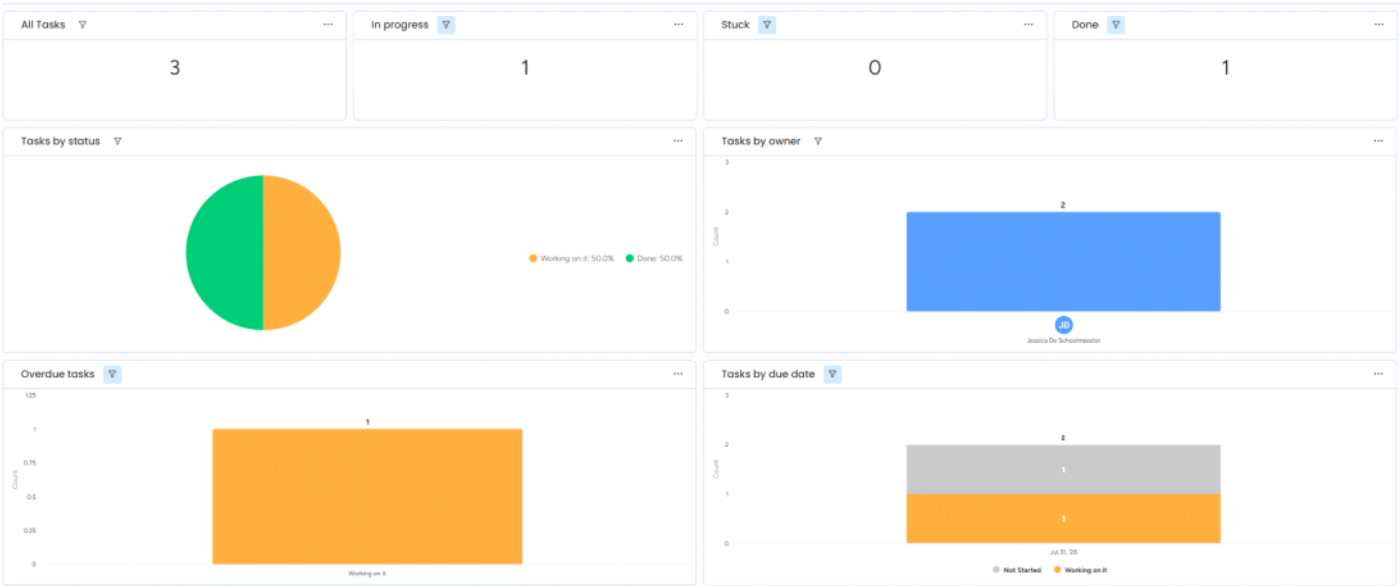
[9] “Agile Methodology,” Dec. 13, 2023. Available: <https://www.geeksforgeeks.org/software-testing/what-is-agile-methodology/>. [Accessed: July, 2026]

[10] “What is Kanban Board? Definition and Overview,” Feb. 07, 2024. Available: <https://www.geeksforgeeks.org/software-engineering/what-is-kanban-board/>. [Accessed: July, 2026]

Appendices

19 May 2026 14:18

Kanban board



NeuAura Mindfulness App | 📅 monday 📁 Main workspace

▼ To-Do

Task	Owner	Status	Due date	Files	Notes	Timeline	Priority	Dependent On	Due Date Un...	Board File Un...	+
Design and Development		Working on it	Jul 31				High				
+ Add task			Jul 31								

Tasks by owner

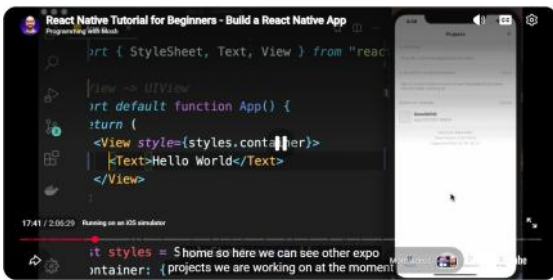


NeuAura Mindfulness App | monday | Main workspace

To-Do

Task	Owner	Status	Due date	Files	Notes	Timeline	Priority	Dependent On	Due Date Un...	Board File List	+
Project Planning and Requireme...	Jessica De Schootmeester	Done	Jun 16				High				
Design and Development	Jessica De Schootmeester	Working on it	Jul 31				High				
+ Add task			Jun 16 - Jul 31								

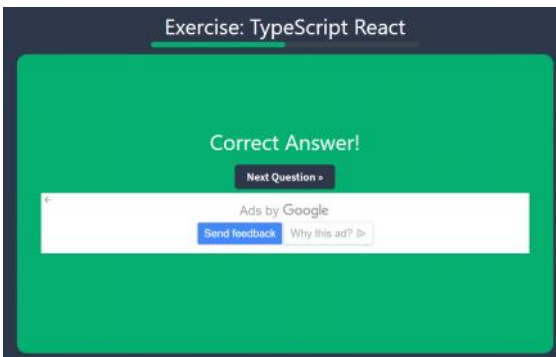
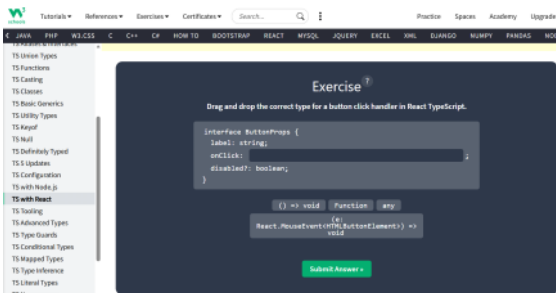
YouTube Tutorial for React Native and how to build an app



React Native Tutorial for Beginners - Build a React Native App

YouTube | Programming with Mosh | 3.7M views | May 11, 2020

Using W3Schools to learn TypeScript



Showing progress of Figma for UX Design course on LinkedIn Learning

