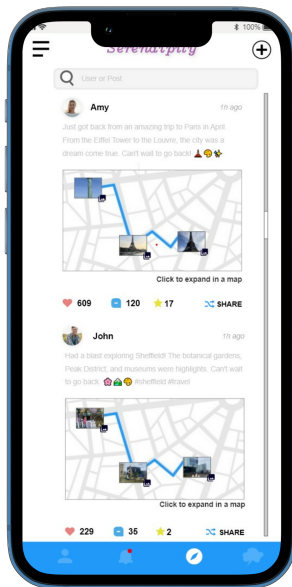


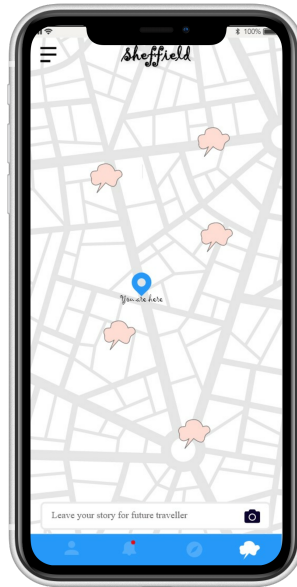
2.2 Secret Mood Hunting

Geocaching (2023) is an app encouraging users to find containers called ‘geocaches’ using GPS-supported devices, and users can take ‘treasure’ when they find a container. However, they must put in a new one for the next participant. The ‘hunting’ rules inspire our app, but we exchange the physical ‘treasure’ with travellers’ text or photos showing their travelling mood in that location. This function will encourage people to go outside and explore the hidden beauty around us and express the beauty they found in their own words, which may promote the tourism industry for small cities.

3. Visual Mockups



3.1 Community



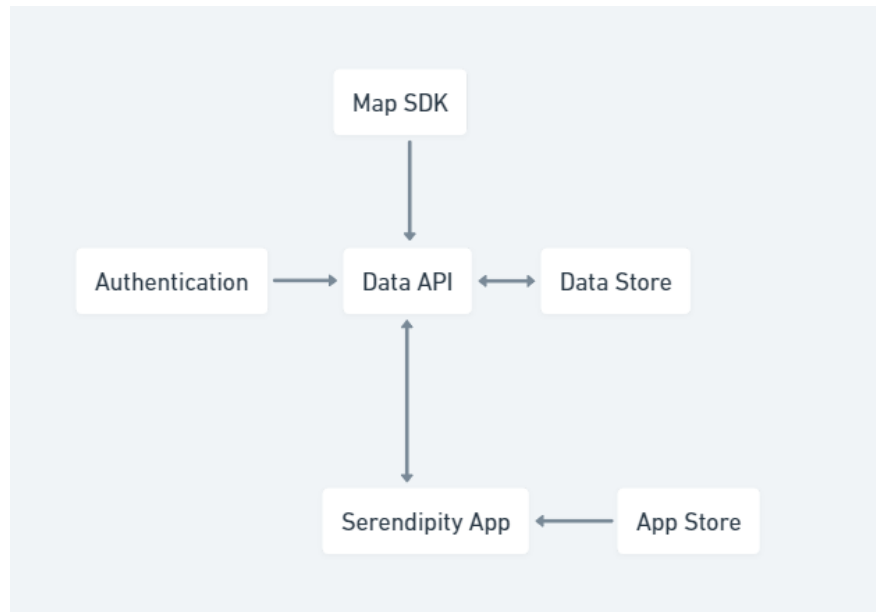
3.2 Secret Mood



3.3 Post Editing Page

4. User Interface Design Choices

When designing the user interface for the Serendipity app, we followed the minimalist principle, which emphasises the use of blank space to create a sense of openness and simplicity while highlighting the essential functions of the product (Justinmind, 2016). The interface features a minimalist colour scheme of white, black, blue, and grey. Moreover, all clickable buttons are in black to enhance the usability and coherence of the page (Jakob Nielsen, 2012). This section presents and explains our app's three essential visual mockups: the community page, the secret moods



5.1 Technical Architecture

6. User-Centred Design

The user-centred design method needs designers to pay attention to users' needs at every stage and comprehensively analyse and apply users' requirements to improve the product design (Ekaterina Novoseltseva, 2022). In the initial design stage, after settling on the essential functions for this app, the design team build up a UI demo. A group of users participated in our first user requirement design, and below are some of the critical feedback for further modification. Then this process will be iterated during the different designing stages.

6.1 Methodology

Blink Test (Five-Second Test):

- Question 1: What could you remember after seeing the page for 5 seconds?
What is the most impressive part for you?
User 1: The Community logo.
User 2: There are routes on the map.
User 3: The letter 'Sheffield' at the top of the page.
- Question 2: Has anyone noticed there is a switching button for 'secret mood'?
User 1, 2 & 3: No.

Expectancy Test:

- Question 1: What will happen after clicking the upper left (profile) icon?
User 2: Bring up the account information, profile something, and maybe change the password.
- Question 2: What will happen after clicking the 'three bar icon' on the upper right?
User1: Bring up other less important functions, maybe changing the map style and showing the contact list.
- Question 3: What will happen after clicking the 'Write Mood' icon in the middle of the bottom?
User2: I didn't see the letter 'write mood' below the icon, but after seeing it, I thought it might be creating my travel route or writing my post or something.
- Question 4: What is it for the 'Secret mood (on)' on the lower right-hand side?
User 2: No idea.

6.2 Modification

The "secret mood" switch design is not clear enough. Firstly, users can hardly notice this button; secondly, they need help guessing the function of this button. Therefore, we improved the UI design of this element in the subsequent progress, changed its style, moved the switch to the bottom of the screen and placed it in a similar position with other functional buttons to enhance the recognition, which is also concordant with the 'law of proximity'. Moreover, the difference between the "Create Route" and "Write Mood" buttons on the same page is not noticeable, so we separate them into two pages to classify them.

7. Issues of Data Ethics

Our app uses Google SDK to imply map view with user-generated content; we will follow Google's related services, including usage restrictions, licensing, and intellectual property provisions. To protect user credentials as possible, we use OAuth to enable users access. So we will also follow the integrated platforms' terms of service, such as Instagram and Google.

We follow the CC BY-NC license standard to protect user-generated journey diaries, allowing non-commercial remixing, adaptation, and building upon others' posts on