Group 5 - Tick 3
Joshua Chen, Alex Newsham, Tabatha Black, Brace Godfrey, Kacper Michalik

SlopeScope - Hi-fi Prototype

Usability Evaluation

We have used heuristic evaluation to evaluate our hi-fi prototype.

User control and freedom

- The navigation bar remains at the bottom of the screen regardless of which screen the users are looking at, so users can always easily return home if they perform the wrong action by mistake.

Consistency and standards

- Our navigation bar is at the bottom of the screen, as is common with a lot of applications. Clicking on the icons toggles between the screens as expected.
- Our search bar is at the top of the screen which is again common. Suggested locations appear when a string is searched, and these can be selected as expected. This makes our design intuitive for users who have used other applications before.
- We use a heart icon to add or remove a location from favourites. An improvement would be to have this icon next to locations on the search bar, so it is clear which locations have been favourited and which haven't. As it stands, it does suggest favouriting something, but is not totally clear what has been favourited.

Aesthetic and minimalist design

- We have used a blue and white colour scheme to correspond with our target audience of skiers and snowboarders (colours of snow, mountains, the sky etc.)
- We have selected relevant weather features to display based on our user research, so no extra irrelevant information is shown on screen. The design of our app with a summary weather screen and a more detailed screen also allows users to see the current weather at a glance more easily if they choose.

Recognition over recall

- Our button bar on the detailed screen automatically puts the current day of the week at the start so users do not need to recall what day it is.
- The location is always displayed at the top so the user is never in doubt which location is being used.

Flexibility for efficient use

- Our app does not have any hidden shortcuts, but does cater for both inexperienced and experienced users by providing three different screens.
- Inexperienced users may find it easier to refer to the home screen for current weather information, and the detailed screen for future weather information because they are displayed in a grid layout in a self-explanatory way.
- Ideally, more experienced users may prefer to additionally use the weather visualiser feature to visualise a specific feature they are interested in to get more information about how it varies in their surroundings. This requires more interaction than simply

viewing the home screen as the controls to manipulate the map are more complicated. However, we were unable to implement this in time.

Visibility of system status

- Our app could potentially show slightly outdated information. This is because our data provider only provides information every 15 minutes.
- A future improvement to our prototype would display how long ago the weather forecasts were computed.

Match between system and real world

- The map and home icons match to the real world so users understand what they represent.

Error prevention

- We initially did not have any error prevention in place, so we changed our design to force users to select from a list of suggested options that appear when they type a location into the search bar, or to enter a valid pair of latitude / longitude coordinates. This prevents users from entering place names that do not exist or can't be understood by our system.
- An improvement to our system would have these suggested options as the user types into the search bar, not just after the whole place name has been entered.

Help users recover from errors

- When the user enters a location that doesn't exist, they are told 'No Location Found' and encouraged to try again. This helps users understand that they might have mistyped rather than the system not working properly.

Help and documentation

- We don't currently have any documentation for our application, but there are very limited controls for the home and detailed pages, so this might not be needed.
- If the map was fully implemented, documentation for the more complicated map controls would be ideal.

From our heuristic evaluation, we learnt that our app does some factors well but can be confusing to new users, particularly on how to interpret the map. With extra time, our app could improve to fix these issues - for example, providing help on how to interpret the app, or using a standard heart icon instead of a checkbox.

Deviation from Lo-Fi Design

In our lo-fi design we included the time displayed in the top right corner of the app, but we decided not to include this. This is because it is typically already displayed at the top of a mobile phone when apps are open.

There are other factors that differ from our Lo-Fi Design, mostly because of the lack of time to implement them rather than a design decision. This includes that the home page only

shows information at the current time rather than a range of times, and the heart icon being on the main screen instead of next to locations on the search bar.

The main deviation between our app and the Lo-Fi Design is the map page. We had to reduce the number of features on this page due to the lack of time to implement. We did not have time to implement selecting weather features for the app, moving around, or changing the current time. There is also no legend for the map right now, which makes it very difficult to interpret - this is something that would be treated as a priority if we had more time.

There are also some minor cosmetic changes, for example, no sun on the home page since this doesn't really go with the snow theme.