PART 1: Overview of your stakeholder group

Overview of the stakeholder group: Outdoor Athletes

This stakeholder group will benefit from the weather app because it tells athletes if the weather is too extreme for outdoor activities to take place, having prior knowledge of this before they set out to start allows them to replan or do alternate indoor training instead of realising too late and having to completely miss out. The opposite of this can also be said, athletes can also look ahead in the week and see optimal conditions for their sport, such as high headwind for windsurfing or cool and sunny for mountain biking, this lets the athlete plan to exercise on this date instead of having to make a best guess on when they will be able to do their chosen activity,

The average age of outdoor athletes is 26 but they can be any age and the average age of Outdoor Athletes has been climbing as people live healthier lives[1]. Athletes are almost always healthy, Regardless the majority of this age group have good experience with technology, and are reliably able to use a computer and/or a mobile phone. Other skills that can be found in this group are, coaching, athleticism, planning and team organisation.

Athletes have benefitted greatly from advancements in technology allowing them to better track their progress as well as making it easier to organise and plan sporting events.[2] As a result of this Athletes have a good relationship with technology and are often familiar with using technology in order to improve their sporting experience. This attitude towards technology makes them a good main stakeholder because it means that they are likely to use the app and see its benefits.

We need to remember that while some outdoor sports can be played in varying weather conditions as long as the weather is not in an extreme and that there are some that require specific conditions in order for them to be conducted in the first place, for example it needs to be sufficiently windy in order for paragliding or for windsurfing. Taking this into account, we know that these users will be expecting reliable and accurate readings which can be seen at least a day in advance to allow the athletes to plan to meet for the sporting activity. Both of these contexts are still suitable when considering how the app can be used. If the athletes chosen sport is one that can be played in varying weather conditions but not extremes (like football) the athletes can use the app to check if a weather extreme is set to occur (for example too hot or heavy rain) and they can also use it to avoid minor poor weather for example if on a Saturday there is rain but on Sunday there isn't, they can choose Sunday instead as the weather is preferable despite both being acceptable. In the other context, the app is even more useful as the athlete can see the specific weather conditions, they need to conduct their sport and plan around it.

Outdoor athletes could participate in their sport every day, or be more of a hobbyist and only have time once a week or less. However, the frequency of the athlete's activity participation will not affect how they use the app, only effecting how often they use the app but the process will stay the same. The more frequently an athlete participates in their sport, the more often they can be expected to use the app. This does mean the stakeholder group could be considered fragmented as some will have more time to devote to being an outdoor athlete than others however, their main characteristics remain the same.

The responsibilities of an outdoor athlete would be to conduct their sport in a safe environment, this is relevant as poor weather could be considered as an unsafe environment to play a sport in, another responsibility would be to organise their match and tell the other participants where and when they need to be, planning this would be made much easier by our app as they will have a better idea of when they can play their sport based on the weather conditions in the coming week.

In this case, they will not need to be concerned about privacy as a weather app will not require a log in to be used instead just allowing the user to see the weather on the screen.

PART 2: Identify and describe wider stakeholders.

Secondary stakeholders

Activity Participants:
One set of secondary stakeholders affected are the activity participants as the actions of the primary stakeholder will affect them. They rely on the primary stakeholder as they use the application to check the weather, their further actions will result in the participants responding to it specifically. For example, if the app shows that it will rain then it will mean that the primary stakeholder will not organise the activity and it will be postponed to another date. This will cause the participants to reschedule their timetable so that they can participate on the new date of the outdoor activity.

Event Organisers:
Another set of secondary stakeholders include event organisers who assist with the primary stakeholders in organising and setting up sports events. They will rely on the primary stakeholders as they will set up the dates in which the events take place where the organisers will set up the event early in the day. The actions of the organisers will depend on what the primary stakeholder does. For example, if the primary stakeholder postpones the event, the event organisers will have to be ready to prepare for the new date as they will have to help set up the event.

Spectators:
Another set of secondary stakeholders include the spectators that attend events. They may not use the app, so they will rely on the primary stakeholder on when to attend the given event. The primary stakeholder checks the weather on the app to see whether the date proposed is good for the event. If the event is postponed due to harsh weather on the given date, then the primary stakeholder will inform the spectators that the event has been postponed meaning that spectators will have to reschedule their timetable so that they can attend the new date of the event happening.

Tertiary stakeholders

Borough Councils:
One set of tertiary stakeholders are borough councils as their property will be used to perform workouts. They do not interact with the application, but they benefit from it due to its success. As primary stakeholders check the app to see the weather for the dates, they can determine whether it is possible to perform these activities outdoors. The actions of the primary stakeholder can affect them, since postponement of outdoor activities can affect the amount of people that come to their grounds. More people that come and engage in their grounds will allow councils to improve their facilities.

Competing Companies:
Another group of tertiary stakeholders are competing companies due to the market that our application will be in. There are companies that have an app like ours and so our application will be competing in the market. By having more users, we can have a dominant position in the market leading to increased revenue and recognition by the public as the number one app for them. This success will affect competing companies as they will lose users due to them shifting to our app. This decrease will force companies to innovate their app in an attempt to regain their users.

Facilitating stakeholders

App Developers:
The facilitating stakeholders will be the people who will develop the application, which in other words is us. We are responsible for maintaining the app so that we can repair any bugs that are found in the weather app and create new features for the application that the primary stakeholders will be able to use and release them via an update at a scheduled time and date. This is to ensure that the app remains reliable for users to use and by adding new features in the app it will continue to maintain interest for the users.

PART 3: Data gathering

Data Gathering Technique:
The data gathering method we have chosen is a simple face to face questionnaire. This was chosen because of the fast response received from the participant when being in front of them and asking a question. This was more effective than sending a digital/physical question sheet as majority of people might ignore it or not give it any real thought that would be helpful for us in terms of user data and how they would use a weather application.

Results:
Here are the questions we asked:
1. Do you use a weather app? If yes, what app/operating system
2. How frequently would you use it within a week?
3. Why do you need to check the weather within that time?
4. What do you like about the app that you use/Why do you use it?
5. Is there something that you don't like about your current app/What would you change?
6. If you could make your own weather app, what would you make sure it had?

We asked 3 different people, and these were their responses:
1) Male – 25
1. Default weather on iOS
2. Every single day
3. I like to go windsurfing, so I need to know the wind speed of the following couple days to pick the best time/day to go for optimal conditions
4. iOS weather has lots of details about air quality which is nice to know
5. Don't like scrolling through a single day's timeline to see how the weather changes
6. A condensed page summarising how the weather of a single day will be without scrolling

2) Male – 19
1. BBC Weather on Android
2. 2-3 times a week
3. I play football with my friends on weekends/occasionally go for morning runs if no rain
4. It conveniently shows the accurate weather for the next 5 days which is enough to plan a football match near the end of the weekdays
5. There isn't that much information such as the humidity level
6. A chart for the temperature which can be changed from a day to a week

3) Female – 31
1. Default weather on Android
2. 1-2 times a week
3. If the weather is nice, I like to go on a picnic to the park with my kids
4. Background of the app changes based on current weather
5. Cluttered user interface, lots of small text
6. Big pictures and less text

In our study we had a varied group of people to get our data from. The first being someone who matched our primary stakeholder group, an outdoor athlete, followed by a casual sportsman who enjoys football. We then included someone outside our focused audience to see what they thought of their weather app. From our questionnaire we have understood that our application should contain more concise information about certain aspects of the weather such as wind, this being wind speed, quality and humidity which would be helpful for windsurfers. Furthermore, the details of each day should remain condensed into a single page which would make it easier to read, whilst having an option in the settings to expand that data should the user prefer it. An optional addition could be to include simple graphics to have a clean yet aesthetically pleasing front page to stand out against our competition like the Android weather app, making the user instantly aware of the current weather with a quick look.

PART 4: Requirements development on your primary stakeholder

Requirements Development Model: Outdoor Athletes

Aims:
The Stakeholder group wants to participate in their sporting activity, a success would be conducting a match of their given sport but could also be training or coaching. They will be dissatisfied if they are unable to partake in these activities due to unforeseen circumstances such as unfavorable weather conditions. The aim from the perspective of the weather app is that they are able to check the weather allowing them to plan around sub-optimal weather conditions. Success is achieved when a session is planned and goes through with the help the app being used to plan around bad weather.

Job Satisfaction:
The Sources of Job satisfaction for the stakeholder comes from training and completing matches of their chosen sport, they enjoy the exercise and the experience that comes from being outdoors. In the case of team sports the stakeholder will find satisfaction in working together as a team. The stakeholder will be dissatisfied if their session is cancelled due to unforeseen circumstances such as poor weather conditions. The app ensures the are more likely to be able to complete activities and therefore increases their satisfaction.

Knowledge and Skills:
The average stakeholder from this group can be considered knowledgeable in sports and fitness, as well as being an avid sportsman and skill in their sport of choice. They can also be expected to have good team working and organizational skills from their experience in organizing and attending training/matches of their chosen outdoor sport. They are also expected to have at least basic technological knowledge so they can operate a phone and access the app, everyone surveyed showed this knowledge.

Work Attitude:

The stakeholder would have a positive attitude to using the app because planning and partaking the sport would become easier. We can also expect them to have a positive attitude towards computer technology because it has been used to improve sporting performance in all sports. They should also be well versed in technology as the average age of an outdoor athlete is 26[1]. Our survey showed they check their weather app at least every 2-3 days and are therefore are already familiar with the concept, however they would prefer clearer displays and more detail.

Work Group Attributes:

Due to the fact that they are outdoor athletes this means weather has a much greater effect on whether they will be able to compete in their sport of choice. This makes the product more acceptable to the stakeholder because forewarning of what the weather is going to be will make organizing when they are going to meet and have a match of their sport. Knowing the weather means they will be able to avoid conditions that are adverse for their sport or make their sport totally unplayable.

Features of Activity:

The frequency for when they will participate in their sport varies between outdoor athletes, some will use it as a hobby or a way to stay fit and therefore may only have time to do so once a week, others may have more free time or even be an outdoor athlete as their job and will therefore do so much more frequently. When it comes to actions within the app mostly users will just be looking at the weather for the day or week ahead, some users may want more detail such as wind speed and humidity.

Responsibilities:

The Stakeholders can be seen as being responsible for their teams and those who may come to see them perform their sport, privacy isn't really a risk here as the outdoor athletes will not be expected to provide any information to use the weather app to check the weather. Another responsibility would be the safety of the athlete and any teammates or training partners, this can be guaranteed if the stakeholder ensures they have optimal weather conditions for their chosen sport. They could also be responsible for setting up the sporting activity.

Work Conditions:

The typical conditions the stakeholder will be using the system in is while planning and organizing an event for their sport or while about to participate in their sport for example the morning of or on their way to the venue. However most commonly it will be while checking when the optimal conditions for their sport are available so during the planning stage.

PART 5: Design

Rationale:

We have decided to make a design that best suits the primary stakeholder based on their ability in using modern technology, in addition to looking at the results that we have obtained from our data gathering. Primary stakeholders are preferably users between 20-30 years, who are generally competent with technology, thus allowing us to have a simple, yet sophisticated, interface. The app will be simple enough to allow primary stakeholders who are not as competent in the use of technology to still use the app without help, ensuring for high usability across all users. Observing the gathered data, all who answered use some type of weather app on a smartphone and on a frequent basis. They use these apps for activities that they perform daily, primarily outdoor activities. The majority of who answered stated they would rather have images representing the weather instead of paragraphs of text. They would prefer if all the information is within one page, so they can check facts quickly. Thus, they prefer simplicity and visual clarity, whilst remaining detailed enough for the user. Our application will be designed as a mobile application that fulfils the requirements of the primary stakeholders and that everyone can use.

Render of first screen of application:

Accessing today's temperature

Accessing today's temperature is very simple. We want to make this application very easy and efficient to use. The user will be able to access today's temperature simply by just opening the app. The first screen that they encounter which is the one that we have shown will contain all the important weather information needed for the day such as the temperature as required and weather conditions.

Features of the today's temperature screen

Menu icon allowing the user to open menu to use other features, eg check weather for other location, set home location and access settings

Will show the current temperature, will also show next to it the maximum and minimum temperature obtained for the day

Will provide a 24 hour insight to the weather conditions, temperature and humidity level from the current time. User can swipe left to access the additional hours and their weather conditions up until the next day

When application checks weather for date of next activity of schedule within 7 days, event index outputs if weather is good for the day or not allowing for the user prepare for any uncertainty

Shows today's date and the current time

This will show the location of where the user currently is

Will tell the user the current weather conditions at the moment

Will provide a 7 day insight to the weather conditions, temperature and humidity up until the next week. For example, if today is Sunday, the app will show the conditions of each day up until the next Sunday as shown

User can quickly view activity schedule from today's weather page and see their schedule, can also edit and add activities

Sunday, 28 March 2021
17:34
Today's Weather
Mile End
12°C High: 14°C
Low: 7°C
Clear

17 18 19 20 21 22 23 00 01
12°C 14°C 13°C 13°C 11°C 8°C 7°C 4°C 4°C
15 12 13 16 10 7 5 4 5

Mon Tue Wed Thu Fri Sat Sun
45 80
12°C 14°C 13°C 13°C 11°C 8°C 16°C
15 12 27 34 10 7 22

Event Index:
Sunny weather forecasted for Tuesday. Good day to perform your outdoor activities!

View your Schedule

Summary

Our application is focused on people who perform outdoor activity, like sporting events and workouts. This application is simple allowing the user to easily obtain information, even on the first screen. The application will come integrated with a schedule that is accessed by the user to add their daily activities. The application will check the weather for the next activity within 7 days and can inform the user if the weather is sufficient for the activities they want to perform. This benefits our stakeholders as it will allow them to quickly access the information they need regarding their activities.

PART 6: Project Roadmap

In the implementation stage of this project, we will have approximately 4 weeks to develop the application. When developing the Weather application, we will be using technologies such as HTML, CSS, JavaScript and React. Our team has experience with the former 3 because we have completed a first-year module going over these 3 technologies, however none of our group members have experience in React hence this will problematic because it could delay our implementation time. Also, it has been a few months since we have been over HTML, CSS and JavaScript so some of us may have forgotten the content, and syntax. Therefore, the solution to this is, we have decided that we will all go over the lab sheets from weeks 1 to 4 as this will help us prepare for the implementation stage and allow us to gain the skills required to efficiently develop the application within the time constraints. This learning of the relevant technologies will be done in the first week of the implementation stage.

To make sure we efficiently develop the application within the time constraint we will be splitting the tasks between team members. According to our design section there will be 5 different screens that need to be developed, the home screen, the menu screen showing the possible options, screen to set the home location, the application access settings and the screen to check the weather for other locations. So therefore, we will allocate around 3 members of our team to develop these screens mainly working on the front end of the application making sure the app is simple to use, as the occasional outdoor sportsman may not be competent with technology will be using this app, also that images represent the weather. This is so we keep in line with the stakeholder requirements.

The other 2 group members will be initially set up the project in a shared environment using the boilerplate code providing. While the other 3 members will be focusing on the frontend, the other 2 will focus on the backend such as finding a good API that will handle the information such as receiving the weather etc. This will be taking up around 2 weeks of the implementation stage. In the final week of the implementation stage we will be finalising the application, fixing and testing the application making sure any bugs found are patched. Any requirements not met will be implemented.

Member Contribution Form

Name of Member:	Alfie Waghorn	Ahsan Ali	Denis Ianev	Rahat Kabir	Hasibullah Ghulamhaidar
Assigned tasks:	Overview of the Primary Stakeholder and Requirements Development on the Primary Stakeholder	Project Roadmap and Member Contribution Form	Design	Data Gathering	Identify and describe wider stakeholders and Design
All assigned tasks completed?	Yes	Yes	Yes	Yes	Yes
Completeness of Final Work	100%	100%	100%	100%	100%
Quality of Work	5 – Very Good	5 – Very Good	5 – Very Good	5 – Very Good	5 – Very Good
Timeliness of Work	5 – On Time	5 – On Time	5 – On Time	5 – On Time	5 – On Time
Active Contribution in Group Sessions	Yes	Yes	Yes	Yes	Yes
Attendance of Meetings and idea contribution	5 - Always	5 - Always	5 - Always	5 - Always	5 - Always
Issues encountered	No	No	No	No	No

References:

Part 1:

[1] Tim Wigmore. (2017). *Why being a professional athlete is no longer a young person's game.* Available: https://inews.co.uk/sport/professional-athlete-no-longer-young-persons-game-43549. Last accessed 9th February 2021.
[2] Ohio University. (2020). *How Technology is Revolutionizing Sports Training.* Available: https://onlinemasters.ohio.edu/blog/how-technology-is-revolutionizing-sports-training/#:~:text=Compared%20to%20whiteboards%20and%20post,communication%20and%20virtually%20eliminating%20injuries.. Last accessed 9th February 2021.

Part 4

[1] Tim Wigmore. (2017). *Why being a professional athlete is no longer a young person's game.* Available: https://inews.co.uk/sport/professional-athlete-no-longer-young-persons-game-43549. Last accessed 20th February 2021.