### Team 20 M2 Submission

### S2 Ranking

#### Criteria

S2 ranking (20%)

- 1. There is a single ranked list for S2 submissions. Tutor generally agrees ranking is reasonable based on the tutor's judgment of the work done
- 2. The overall criteria used to rank have been clearly set out and followed to make the rankings fair
- 3. Individuals who have done better or higher quality work are more highly ranked than those who have done less quality work.
- 4. Justification to each rank is clearly set out (~100 words each)
- 5. Justification to each rank gives useful feedback to the team member about performance.

### Agile Estimation of Cards

- 1. Units:
  - follows an agreed unit
  - similar enough to the agreed unit
  - different to the agreed unit
- 2. Reasonable estimation:
  - reasonable relative to other estimations
  - high/low relative to other estimation
  - estimation unreasonable: too large/too small
- 3. Subject of Kanban cards:
  - clear references to persona, feature and mockups
  - some indirect link to project elements
  - unclear link to app elements
- 4. Practicalities in Kanban estimation:
  - uploaded in the agreed format/boards/cards
  - not in the agreed format/boards

### Tech Report

- 1. Format:
  - follows an agreed format/layout
  - · similar enough to the agreed format
  - different to the agreed format
- 2. Specific to project:
  - links clearly and well to the team's project
  - report fits well within the project
  - unclear link to the project
- 3. Agreed topic:
  - report on agreed topic
  - different topic than agreed
- 4. Independent work:
  - report clearly developed independently
  - mostly developed independently
  - relies heavily on found information
- 5. Within page limit:
  - one page report
  - more or less than a page
  - well over or well under the limit
- 6. Benefit of report:
  - very useful: excellent analysis, relevant to to project, reduces research and development time for whole team
  - somewhat useful: relevant to only some of the team or some development work
  - not useful or generic information
- 7. Contribution to quality:
  - provides clear guidelines on quality of code contributions
  - some relevant quality of code contributions
  - not useful information on quality contribution

### Tech stack/CI

- 1. Usefulness of the contribution to MVP:
  - Excellent, useful contribution to MVP
  - Basic, generic contribution to MVP
  - No contribution to MVP
- 2. Commits messages:
  - Useful and clear commit messages
  - Unclear or generic commit message
  - Blank commit messages
- 3. Commits Practicalities:
  - Evidence of commit to correct repo/agreed file(s), using SSH
  - Not in the agreed format/repo/file

	1.Units	2.Reasonable estimation	3. Subject of Kanban Cards	4. Practicalities in Kanban estimation	1.Format	2. Specific to Project	3. Agreed Topic	4. Independent Work	5. Within Page Limit	6. Benefit of report	7. Contribution to quality	1. Usefulness	2. Commits messages	3. Commits Practicalities	Total
Aadil	3	3	2	2	2	2	2	3	3	2	1	3	3	2	35
Ismail	2	3	2	2	3	3	2	2	3	2	1	2	3	2	32
Kris	3	3	2	2	2	2	2	1	3	2	1	2	2	2	29
Zeerak	3	3	2	2	2	2	2	2	3	2	1	2	2	2	30
Lakhminder	3	3	2	2	2	1	2	3	3	2	1	2	3	2	31
Simon	3	3	2	2	3	2	2	2	3	2	2	2	3	2	33
Meghna	3	3	2	2	2	2	2	1	3	2	1	2	3	2	30

S2-Ranking was determined using the set out marking criteria given to us as a guide. Then we used the bullet points as a point scheme where the higher score means more bullet points met. Then the scores were added together and used to rank each of our submissions. Where there were ties in the score further marking and explanations were given to choose who ranked higher. Using this method ensured there was no equal rankings and there was a standardized method of ranking everyone's S2 submissions.

#### 1. Aadil - 35

Aadil has done well in his S2 Submission scoring the highest out of all submissions. His Kanban cards were the best out of everyone's submissions including a description and more details about the task and with a time estimation being shown on the cards. In his tech report about security, he detailed the issues and the steps that need to be taken to prevent issues, for example the access controls. However, with his submission we felt the practicality side needs to be improved as he could have explained the libraries and API's he included.

#### 2. Simon - 33

Overall, Simon's S2 submission was of a high quality. He submitted a thoughtfully written tech report which provides great detail about what Angular entails and the benefits it would have not only in general but specifically to the team project, such that anyone who is a complete novice would know the basics of Angular. Although he provided some code in his report, it lacked some guidance on the implementations and the practicalities of Angular. His commit messages were very comprehensible, detailing the specific changes that have been made. His Kanban estimations were straightforward, and the tasks were equally assigned.

#### 3. Ismail - 32

Ismail has completed his work to a good standard. His technical report about APIs was beneficial to the rest of the team and everyone was able to understand what an API is and how it will be useful in our system. He provided useful links in his technical report for anyone who needed more information and support on understanding and implementing APIs. His commit messages were straightforward and very clear to the rest of the team and he started a basic formatting of the home page to mirror the mockup. Overall, a solid contribution from Ismail.

### 4. Lakhminder – 31

Lakhminder's work was well-structured. The Kanban card lacked references to a persona and mock-up, however the tasks demonstrated clear links to the project elements and requirements. The Kanban card showed practicality in terms of tasks and estimation, the estimation was in the agreed units and reasonable relative to other estimations. Lakhminder's tech report followed a clear and easy to follow format for readers without knowledge on the agile development process, specific links to the project were required for a higher mark, as a result the report was found to be less useful, and the submission ranked lower as a whole.

#### 5. Zeerak - 30

Zeerak has completed his S2 submission to a reasonable standard. His agile estimation of cards was simple but limited in detail, his kanban cards were in the agreed upon format and had some link to the project however they lacked further detail such as mockups and detailed features. His tech report followed an easy-to-read format and fitted well within the development of the project. However, the report lacked specific instructions, which gave it a lower mark relative to others, but was more in-depth than others, hence the ranking. Zeerak's commit was fine but lacked detail hence the lower ranking, however it did not lack key information.

### 6. Meghna - 30

The overall S2 submission from Meghna was clear, concise and well-put-together. Although the detailing on the tech report could have been of a higher standard, the information provided was never redundant nor irrelevant. Preferably, some code and detailed instructions could have been provided in the actual report and not in the external links. Her agile estimation of the kanban cards was also concise but lacking in further detail such as mockups and a brief description. Her contribution to the tech stack was minimal, but her commit messages were always clear to the team of what had been done.

#### 7. Kristupas - 29

The work that Kristupas submitted was not his finest; it lacked attention to detail. Even though his Kanban cards met the criteria of the entire team, he lost most of his points during the creation of the tech report and the tech stack. The information supplied by Kristupas does not appear to be particularly helpful for the development of this project. The data he gathered seemed pointless and repetitive. Also, he did a respectable job of preparing his tech stack, yet he could have included more information in his commits. Overall, the team decided Kristupas's work to be the worst.

### Walking Skeleton/ MVP

Walking skeleton/MVP (50%)

- 1. A report (between 2-3 pages) of the MVP, and ChatGPT free.
- 2. MVP feature(s) have been well-defined and justified the feature should gives a good idea of the app's purpose. (MVP feature does not not have to be final implementation)
- At least one
   Sophisticated feature that span all three layers implemented (front-end, back-end and database).
- 4. MVP should be deployed to the VM instead of running locally. A valid URL should be provided.
- 5. All team members must participate in developing the MVP feature(s), and the workload should be equal.
- GDPR policy displayed in the MVP.

Community+ is a dynamic web application designed to provide users with up-to-date crime alerts, community events and activities, emergency response information, and more. Our priority is to provide a user-friendly interface that is easy to navigate and use so anyone can access important information efficiently and easily. We are using JHipster as our tech-stack generator, and a Postgres database to store data for the various pages of our site.

Users can create profiles, using email registration, and log in to gain access to the more vulnerable information on our page such as crime alert details, community messages and more.

### **Login Details:**

Username: user Username: user

Password: oL3Cy\*kLpQKoH6 Password: 8yUH^^hfvz7bo3

URL of our MVP: <a href="https://www.communityplus.live/">https://www.communityplus.live/</a>

Our users will be welcomed with a home page. The home screen will initially welcome the user and provide them with the details of the website, how to use it and how to get started. This will be the face of the system where you can access all aspects of our system through simple navigation. The navigation bar will be at the top of the page with a clear logo to reassure you are using our trusted web application. The navigation bar will contain the following headings: Home, Crime Alerts, Emergency Stations, Community, Lost and Found and the Emergency Guide. All these pages can be visited from the home and those pages can redirect you back to the home page. This will be the initial state of the home page when visited by a user. Very simple and clear at the start.

On a registered account on our website, you will be greeted with a confirmation message to inform you that you have been signed in successfully. It will also display who you are signed in as for reassurance. Your dashboard will be displayed to show your widgets so you can display all the desired information in one place. These can be moved around, changed, or deleted to allow personalisation of your home page. Anyone can also create an account with our web application for a similar experience.

One of the features of our web app is the emergency stations which comprises of an interactable map where users can search and browse for emergency stations such as police stations, hospitals, pharmacies, fire stations, etc. This is fitting for our web app because it ensures the safety of the community knowing/having easy access to the locations of emergency stations around them should they require a service. The page consists of a straightforward and easy to understand title, so users know exactly what the function of the page is. For an increased ease of access, users can also use the filter feature where they can filter the search results on the map to just display a certain type(s) of station, or radius from searched location, etc. Additionally for convenience, users have the ability to use the locate button which zooms to their current rough location given they have location enabled. This is so that they can instantly see emergency stations nearby instead of having to search and find their location slowly which can be time consuming, especially in "emergency" situations. For accessibility purposes, users can also use the voice search feature when they are unable to use their hands to type at that point in time.

Another feature of our web application, Community+, is the Community page. This is where users can view local events in their community via a carousel on the page. They are also able to chat with members of the local community in different rooms. These rooms will be based on local events in the area to which members can add as well as businesses in the local area to perhaps contact them if you need a particular service. In addition, the page will also contain a map which allows the user to view the locations of local events and businesses in their area. This will be useful for the user as they can see events close to their own location and makes them more likely to use our website. For the Community page, this will be a sophisticated feature that will span all layers. It will be using the Postgres database to store information such as the chat messages, the chatrooms, the events, and businesses. It will also use the back-end spring boot to control how the user is connected to the server and have messages sent to the right room so all users can see the messages at the same time. It will also use the front-end angular to display the community page as well as connecting to the APIs created for the database in order to display messages and information from the database. Furthermore, Sean Parkins a plumbing business owner, one of our persona's will make good use of this site as it will allow him the opportunity to advertise his business to the community and could allow him to increase his business with other areas by recruiting more plumbers. This feature is still in development with only a basic layout of the page completed as the next steps will be to implement the back end so that the chatrooms are able to function.

The Crime Alert page, which is the main site of our website, allows visitors to observe, share, and discuss crimes that are taking place nearby. The website receives the crimes through the police API, and users may also report the crimes they saw. To store all the crimes, a standard Postgres database is going to be utilized with fields for title, description, date, latitude, and longitude. Every crime will also have a crimeID record, and the website will periodically update and add all the crimeID entries from the API that are not already there. Users' reported offences crimeID entry will be -1. There will be a discussion for each crime where individuals may discuss what happened. It means that a new database for conversation and comments will exist. Moreover, a map with pins will be included on this website to aid with navigation. We will program the website to get the latitude and longitude from the database and utilise leaflet dependencies to create pins on the map that, when clicked, will provide further details about the incident. Moreover, a list view option that contains the necessary information will be accessible. For this, a button to switch between a list view and a map view would be included. This website will have a notification bar so users can see if they were referenced in a conversation or get alerts about violence in certain neighbourhoods (if selected by them). There will be a different notification database for that, which will keep track of which people receive what notifications. The whole page will have a consistent, modern design, which will be like the other pages of the website. As the development continues more features will be added to this page.

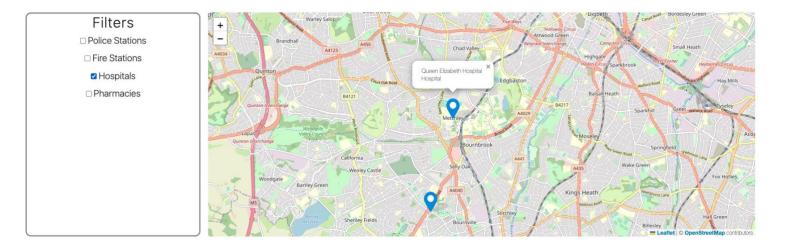
The Emergency Response Guide page is, as in its name, one of the most informative pages on our website, and provides a myriad of useful advice, tips and much more on how to deal with different emergency situations. One main features of this page is the "Panic Button" which will provide immediate access to relevant emergency response information and tips for incidents of utmost urgency. Upon clicking the button, though functionality still in-progress, you will be redirected to a carousel of emergencies that require fast response times, e.g. CPR, how to stop bleeding etc. The page includes a brief introduction named "Our eMergency Guide" (a play-on-words with "OMG" making it catchy for users). There will also be a carousel for displaying further various emergencies and their relevant response information, as well as a search bar to be redirected to said relevant information, which are still under development. Further information on this page will include sections called "should I call 999?" and "Useful Hotlines", which are as the names indicate. As most of the information on this page is static, further time and research on

emergency response itself will be needed to complete this page, and we plan to take extra care into not providing any falsities.

The Lost and Found page allows users to find any lost belongings. The page provides a centralized location where users can report any items that have been lost or found. The page allows users to search through an updated catalogue of lost and found reports, with more information present once a report box has been selected to view. This information can include: a description of the item, location in which it was lost/found, the date it was lost/found, an image of the item, and contact details of the person who lost/found the item. This information can then be filtered through a dedicated. Relevant filters can also be used to narrow down the search to contribute to the general goal of reducing the time and effort it takes people to find their lost belongings. In an effort to make the web application user-friendly, a dedicated messaging platform will be added specifically for lost and found queries, therefore easy communication can be achieved between users so lost belongings can be identified and returned safely. To develop these features, JHipster will be used as the development platform which will create a Springboot back-end, a database will be made in PostgreSQL to store important information such as messages and reports. For the front-end, angular will be used and APIs will be integrated for features such as the chat and filtering.

#### Our sophisticated MVP feature

So far, our sophisticated MVP feature is our map. This can be utilised by the user in the Community, Emergency Stations and Crime Alert sections of our web application. This map displays a user-friendly interface for users to locate any places of interest such as police stations, hospitals and businesses. This is connected to a database where locations are stored as a pin with their longitudinal and latitudinal values to pinpoint the exact location of that landmark. This ensures accuracy and that our web application can be trusted when pinpointing these locations.



### GDPR Policy & DPIA form

GDPR policy & DPIA form (10%)

- 1. GDPR policy has a limited timeline (how long will store the data).
- 2. Clearly explain what information will be collected, how it will be collected and why.
- 3. Clearly explain where the data/information is going to be stored.
- 4. GDPR timeline, data collection and storage is reasonable and aligned with the project aims.
- 5. Real contact details for the team.
- 6. Cookie policy included.
- 7. A completed DPIA form with all the required information, with reasonable risk analysis and mitigation.

### **GDPR Policy**

Community+ Privacy Policy, this was generated using the template on the GDPR.eu website following advice from the website to create our own privacy policy for our website.

### Community+ Privacy Policy

This privacy policy will explain how our organization uses the personal data we collect from you when you use our website.

### Topics:

- 1. What data do we collect?
- 2. How do we collect your data?
- 3. How will we use your data?
- 4. How do we store your data?
- 5. What are your data protection rights?
- 6. What are cookies?
- 7. How do we use cookies?
- 8. What types of cookies do we use?
- 9. How to manage your cookies
- 10. Privacy policies of other websites
- 11. Changes to our privacy policy
- 12. How to contact us
- 13. How to contact the appropriate authorities

### What data do we collect?

Community Plus collects the following data:

- Personal identification information (Name, email address, phone number, address, occupation and bio)
- Business names and locations
- Communications
- GPS location

### How do we collect your data?

You directly provide Community Plus with most of the data we collect. We collect data and process data when you:

- Register online for our service
- Voluntarily complete a customer survey or provide feedback via email.
- Use or view our website via your browser's cookies.

### How will we use your data?

Community Plus collects your data so that we can:

- Ensure features are presented correctly for your purpose and use
- Ensure the most up to date and accurate information is displayed

Ensure the safety of others by confirming your identity

### How do we store your data?

Community Plus securely stores your data at cloud-based location, secured with certificates and passwords secured with hashes.

Community Plus will keep your data for 1 year i. Once this time period has expired, we will delete your data by removing all your messages and details entered by you.

### What are your data protection rights?

Community Plus would like to make sure you are fully aware of all of your data protection rights. Every user is entitled to the following:

**The right to access** - You have the right to request Community Plus for copies of your personal data. We may charge you a small fee for this service.

**The right to rectification** - You have the right to request that Community Plus correct any information you believe is inaccurate. You also have the right to request Community Plus to complete information you believe is incomplete.

**The right to erasure** - You have the right to request that Community Plus erase your personal data, under certain conditions.

**The right to restrict processing** - You have the right to request that Community Plus restrict the processing of your personal data under certain conditions.

**The right to object to processing** - You have the right to object to Community Plus's processing of your personal data under certain conditions.

**The right to data portability** - You have the right to request that Community Plus transfer the data that we have collected to another organization, or directly to you, under certain conditions.

If you make a request, we have one month to respond to you. If you would like to exercise any of these rights, please contact us at our email: <a href="mailto:communitypluslive@gmail.com">communitypluslive@gmail.com</a>

### What are cookies?

Cookies are text files placed on your computer to collect standard Internet log information and visitor behavior information. When you visit our websites, we may collect information from you automatically through cookies or similar technology.

For further information, visit <u>allaboutcookies.org</u>.

### How do we use cookies?

Community Plus uses cookies in a range of ways to improve your experience on our website, including:

- Keeping you signed in
- Understanding how you use our website
- Identity theft protection

### What types of cookies do we use?

There are several different types of cookies, however, our website uses:

- Functionality Community Plus uses these cookies so that we recognize you on our website and remember your previously selected preferences. These could include what language you prefer and your current location. A mix of first-party and third-party cookies are used.
- Advertising Community Plus uses these cookies to collect information about your visit to our website, the
  content you viewed, the links you followed and information about your browser, device, and your IP address.
   Community Plus sometimes shares some limited aspects of this data with third parties for advertising purposes.
   We may also share online data collected through cookies with our advertising partners. This means that when you
  visit another website, you may be shown advertising based on your browsing patterns on our website.
- Security Secures information about your user so that if someone was to steal your cookie it would reject them from accessing your profile.

### How to manage cookies

You can set your browser not to accept cookies, and the above website tells you how to remove cookies from your browser. However, in a few cases, some of our website features may not function as a result.

### Privacy policies of other websites

The Community Plus website contains links to other websites. Our privacy policy applies only to our website, so if you click on a link to another website, you should read their privacy policy.

### Changes to our privacy policy

Community Plus keeps its privacy policy under regular review and places any updates on this web page. This privacy policy was last updated on 13 March 2023.

### How to contact us

If you have any questions about Community Plus's privacy policy, the data we hold on you, or you would like to exercise one of your data protection rights, please do not hesitate to contact us.

Email us at: <a href="mailto:communitypluslive@gmail.com">communitypluslive@gmail.com</a>

### How to contact the appropriate authority

Should you wish to report a complaint or if you feel that Community Plus has not addressed your concern in a satisfactory manner, you may contact the Information Commissioner's Office.

Email: accessICOinformation@ico.org.uk.

Address Inforation Access Team
Information Commissioner's Office
Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

# Community+ DPIA

### Step 1: Identify the need for a DPIA



Explain broadly what project aims to achieve and what type of processing it involves. You may find it helpful to refer or link to other documents, such as a project proposal. Summarise why you identified the need for a DPIA.

The project aims to help protect communities by making crime data publicly available to the communities as well as providing services such as lost and found and emergency services. The app collects sensitive personal information such as name, address, phone number, email, and location data, which could potentially be misused if not properly safeguarded, to identify and report crime in the community.

Given the sensitivity of the data involved and the potential risks to individuals' privacy and rights, a DPIA is necessary to identify and reduce any potential risks related to the processing of personal data. The DPIA will help to ensure that the processing of personal data by the app is lawful, fair, and transparent, and that personal data is kept safe.

# Step 2: Describe the processing: how will you collect, use, store and delete

data? What is the source of the data? Will you be sharing data with anyone? You might find it useful to refer to a flow diagram or other way of describing data flows. What types of processing identified as likely high risk are involved?
To collect data, we will rely on user input to our website and any feedback given for our website, the data collected from users will only be used for the functions of our website. To store the data we will use a database stored on a cloud machine. To delete the data a user will need to put in a request to the website email. This data will not be shared with anyone else.
<b>Describe the scope of the processing:</b> what is the nature of the data, and does it include special category or criminal offence data? How much data will you be collecting and using? How often? How long will you keep it? How many individuals are affected? What geographical area does it cover?
The data stored is personal information from users, it also uses information from the Uk's crime API which contains data of criminal offences but does not contain any personal information. The user information will be held for a year from the last time a user used the website. The individuals affected by this data are all citizens in the Birmingham geographical area.

the individuals? How much control will they have? Would they expect you to use their data in this way? Do they include children or other vulnerable groups? Are there prior concerns over this type of processing or security flaws? Is it novel in any way? What is the current state of technology in this area? Are there any current issues of public concern that you should factor in? Are you signed up to any approved code of conduct or certification scheme (once any have been approved)?
The relationship with the individuals is that they are from the same Birmingham community. They will have the ability to add information to the website and can request to delete their information from the system. They are expected to use the data in the way we have outlined in our system.
<b>Describe the purposes of the processing:</b> what do you want to achieve? What is the intended effect on individuals? What are the benefits of the processing – for you, and more broadly?
The data processed will be used to show various information about the Birmingham community such as local events, crime alerts and emergency information. The benefits of the data processing will inform users of our website information about the Birmingham community.

Describe the context of the processing: what is the nature of your relationship with

### Step 3: Consultation process

**Consider how to consult with relevant stakeholders:** describe when and how you will seek individuals' views – or justify why it's not appropriate to do so. Who else do you need to involve within your organisation? Do you need to ask your processors to assist? Do you plan to consult information security experts, or any other experts?

In development, it is ideal to seek feedback from potential users as they will be the ones who would use the app. The best time to seek individuals' views are after we have come up with the initial mock-up design, and when the front-end elements and UIs are complete. This is because these are the end of a design stages, otherwise there will nothing to review as the web app will not have a structured appearance. It is ideal to consult information security experts as security is essential to comply with laws and legislations.

### Step 4: Assess necessity and proportionality

**Describe compliance and proportionality measures, in particular:** what is your lawful basis for processing? Does the processing actually achieve your purpose? Is there another way to achieve the same outcome? How will you prevent function creep? How will you ensure data quality and data minimisation? What information will you give individuals? How will you help to support their rights? What measures do you take to ensure processors comply? How do you safeguard any international transfers?

Our lawful basis is to ensure the public and the users themselves are protected from any harm in their local area. Therefore, taking their personal details such as where they are located can help enforce their safety and the safety of others. Data will not have to be provided as it is their right to share such personal data. However, our web application may not be as beneficial to them as they would like it to be. An alternative would be to make our system general to a location, but this can be tedious and inefficient for users to continuously put in their location so sharing their details with us can make their experience simpler. Details such as crimes that have been reported near their registered location will be shared with the user for their benefit. Any new plans to update the system will be shared with users to give them the option to withdraw their information. This can help prevent function creep and will make users aware of how their data will be used in the updated system. To support user's rights, data can be withdrawn, updated, requested and removed from our system at any time. A user can contact the ICO at any time to ensure safe transfer of their data and any queries or problems they may have with their data.

Step 5: Identify and assess risks

Describe source of risk and nature of potential impact on individuals. Include associated compliance and corporate risks as necessary.	Likelihood of harm	Severity of harm	Overall risk
<ol> <li>Risk of unauthorized access:         Personal data of users might be accessed by unauthorized individuals or entities, such as hackers or malicious insiders.</li> <li>Risk of data breaches: The application might be vulnerable to data breaches, resulting in unauthorized access, disclosure, alteration, or destruction of user data.</li> <li>Risk of inaccurate or incomplete data: The application might collect inaccurate or incomplete data, resulting in incorrect or misleading crime reports, community posts or alerts.</li> <li>Risk of discrimination or bias: The application might perpetuate or exacerbate existing biases or discrimination, either intentionally or unintentionally, in its crime reporting, community posting or alerting.</li> <li>Risk of inappropriate use: The application might be misused by users or administrators for inappropriate purposes, such as stalking or harassment.</li> <li>Risk of user error: Users might unintentionally provide inaccurate or misleading data, resulting in incorrect or misleading crime reports, community posts or alerts.</li> <li>Risk of system failure: The application might experience technical issues or failures, resulting in the loss or corruption of user data or the inability to provide accurate or timely crime reports, community posts or alerts.</li> </ol>	Remote, possible or probable  1. Remote  2. Remote  3. Probable  4. Possible  5. Possible  6. Possible  7. Remote	Minimal, significant or severe  1. Significant  2. Severe  3. Minimal  4. Significant  5. Severe  6. Significant  7. Significant	Low, medium or high  1. Low  2. Low  3. Low  4. Medium  5. High  7. Medium

### Step 6: Identify measures to reduce risk

# Identify additional measures you could take to reduce or eliminate risks identified as medium or high risk in step 5

Risk	Options to reduce or eliminate risk	Effect on risk	Residual risk	Measure approved
4. Risk of discrimination or bias	To reduce the risk of discrimination or bias, development should aim for impartial crime reports and other applications of the software. Furthermore, alerting, reporting and posting could be reviewed by a panel of judges within regular intervals to ensure there is no discrimination from the application.	Eliminated reduced accepted Reduced	Low medium high Medium	Yes/no Yes
5. Risk of inappropriate use	One measure that could be established to reduce the risk of users or administrators misusing the application for inappropriate purposes would be setting up distinguished levels of access, as a result of this only relevant and trusted individuals would have access to higher level and more sensitive data. Another measure to reduce this risk would be the monitoring of user activity in the event of any anomalies, inaccurate data or feedback/reports against inappropriate use such as stalking or harassment.	Reduced	High	Yes
6. Risk of user error	To reduce the risk of user error, crime reports could be filtered for common errors and removed after review. Another method that could be used would be random reviews of reports from users to ensure accuracy.	Reduced	High	Yes

system ailure	failure, one measure that could be taken would be to think ahead and have established plans in cases of possible issues that may arise, for instance, the regular backup and storage of important data to avoid any loss or corruption, this would in turn help in the optimisation of capacity and resilience of the application. Furthermore, to reduce any chances of a system failure, optimal precautions should be taken including power and			
;	•	failure, one measure that could be taken would be to think ahead and have established plans in cases of possible issues that may arise, for instance, the regular backup and storage of important data to avoid any loss or corruption, this would in turn help in the optimisation of capacity and resilience of the application. Furthermore, to reduce any chances of a system failure, optimal precautions should be	failure, one measure that could be taken would be to think ahead and have established plans in cases of possible issues that may arise, for instance, the regular backup and storage of important data to avoid any loss or corruption, this would in turn help in the optimisation of capacity and resilience of the application. Furthermore, to reduce any chances of a system failure, optimal precautions should be	failure, one measure that could be taken would be to think ahead and have established plans in cases of possible issues that may arise, for instance, the regular backup and storage of important data to avoid any loss or corruption, this would in turn help in the optimisation of capacity and resilience of the application.  Furthermore, to reduce any chances of a system failure, optimal precautions should be

## Step 7: Sign off and record outcomes

Item	Name/date	Notes				
Measures approved by:	Mohammed Ismail Mahroof	Integrate actions back into project plan, with date and responsibility for completion				
Residual risks approved by:	Kristupas Jakubonis	If accepting any residual high risk, consult the ICO before going ahead				
DPO advice provided:	Mohammed Ismail Mahroof	DPO should advise on compliance, step 6 measures and whether processing can proceed				
Summary of DPO advice:						
All measures are in place, and are reasonable and achievable.						
DPO advice accepted or overruled by:	Meghna Jagadeesh	If overruled, you must explain your reasons				

Comments:		
None.		
Consultation vocanonas	Cimon Lucas	If your decision departs from
Consultation responses reviewed by:	Simon Luong	If your decision departs from individuals' views, you must explain your reasons
Comments:		
None.		
	,	
This DPIA will kept under review by:	Aadil Ahmad	The DPO should also review ongoing compliance with DPIA

### Meeting Diary

Meeting diary (10 %)

- 1. The meeting diary should include general information for each meeting: date, time and venue
- 2. Attendees have a clear role in the meeting and the roles alternate between meetings (e.g. secretary, chair)
- 3. Each team should provide evidence of regular meetings (at least 4 meetings up 22.02.23).
- 4. Most entries should summarise the key points discussed in the meeting.
- 5. Most entries reflect the agreed points and decisions made as a group.

The meeting diary is shown below with all the following details for the meetings:

- Who attended;
- Who had what role in the meeting;
- The subject of the meeting;
- Notes taken in the meeting;
- Decisions made;
- Any issues fixed or raised
- Resets to the VM or major changes to the repo
- Responsibilities for each team member
- Allocation of tasks
- Feedback/advice from our tutor

# **Meeting Diary - Team 20**

Group Meeting 1 - 06/02/2023

Tutor Meeting 1 - 09/02/2023

Tutor Meeting 2 - 13/02/2023

Group Meeting 2 - 13/02/2023

Tutor Meeting 3 - 20/02/2023

Group Meeting 3 - 20/02/2023

Tutor Meeting 4 - 27/02/2023

Group Meeting 4 - 27/02/2023

Tutor Meeting 5 - 06/03/2023

Group Meeting 5 - 06/03/2023

Tutor Meeting 6 - 13/03/2023

Group Meeting 6 - 13/03/2023

### Group Meeting 1 - 06/02/2023

### Introduction to teammates/Register:

Aadil, Ismail, Zeerak, Simon, Meghna, Kris, Lakhminder(absent due to family emergency)

Shared role: all lead on ideas

Main subject of the meeting: Brainstorming/Deciding on an idea

Venue: Lower ground seating in Computer Science building

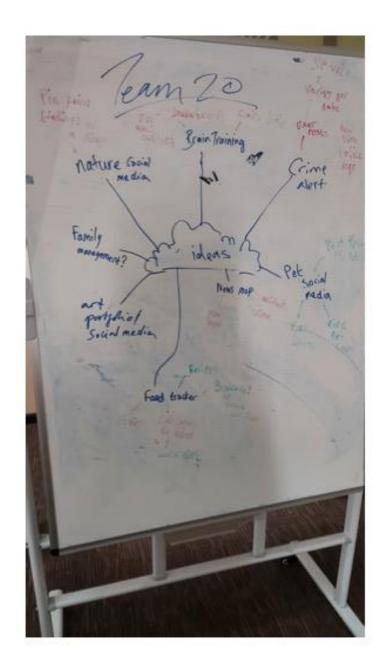
Accessibility Evangelist: Ismail

### Listing Ideas and comments:

 an app that matches up language learners for conversation and practise - Can get quite complicated

- · nature foraging website Sharing nature with others on a forum.
- · personal finance tracker too common...
- groceries/calorie app Scan items and keep a virtual fridge, reciepes and calorie information etc.
- digital CV/Resume App Allow you to produce your CV and guide you
- · Crime web Alert app Alerting communities and locals of crime in their area
- Invoicing Web App Making writing invoices easier
- Braintraining app Minigames to help people and train their mind. Leaderboards and competetiton can be added

### Brainstorm:



### Ideas we like:

- · Crime Alert App
- Brainstorming

### Potentials on Crime Alert App:

- An app which alerts about crime from police api and from users. You can follow either and area or specific police station. People can see when the alert was made by user or by police.
- · A map with different markers which mark where the incidents happened.
- A live discussion, where people can talk about what happened.
- A page which directs to nearest police station by location or entering a postcode/address
- Police stations can have their own separate account and post what they like(?)
- Ability to view crime statistics and trends in a specific area.
- A panic button to quickly notify police in case of emergency.
- Option to provide anonymous tips to police regarding ongoing investigations.
- A lost and found section where people can post about lost or found items.
- A rewards system for people who provide useful information leading to the arrest of a criminal.
- Upvotes and downvotes for user posted incidents

#### Potentials on Braintraining:

- Website provides 4-5 minigames for people.
- People can earn points for each game and people with the most points get on the leaderboard.
- · You can have friend list and chat with friends.
- You can invite friends and compete between each other.
- People can bet their points and the game winner takes it all.
- You can offer more points for completing certain challenges or milestones, such as reaching a certain score in a minigame, or playing for a certain number of days in a row.
- You can also offer bonus points for referring new users to the website, or for completing a set of minigames in a specific order.

- You can offer limited-time point bonuses for playing during special events or holidays.
- Offer additional points for completing surveys or sharing feedback about the website.

Not sure on which one is the one to go for but narrowed it down to two.

Next tutor meeting: 09/02/2023

Next group meeting: 13/02/2023

### Tutor Meeting 1 - 09/02/2023

### Register:

Christian (Chairman)

Aadil, Ismail, Zeerak, Simon, Meghna(ill), Kris, Lakhminder(absent due to family emergency)

Venue: Room 217 in the Computer Science building

Main subject of the meeting: Finalising the idea

- · Met our tutor Chrisitan
- · Explained Lakhminder's absense
- · Asked him about which idea is better

### Verdict:

 Braintraining is very common. Lots of mini games like it people have on their phone already.  Crime Alert, better idea, not too many apps, only a few like it. Potential to grow and be worldwide and can enforce better communities. Only a couple of apps like this: Nextdoor and Citizen.

#### Further Notes:

- Uses Figma for the final mockup, better variety and looks more professional
- · Do mockup on paper first and Balsamiq Wireframes if possible
- · Do a calendar of timings and who does who
- · 1 persona per person
- · Crime alert can sell more than braintraining, braintraining is quite common.
- · Both ideas (crime and brain training) are great ideas
- · Have to come up with a way to counter fake news for crime alert
- · Could verify news with evidence
- · Need to consider confidentiality
- Maybe have users verify themselves when making an account? (Helps stop fake news and bots)
- · When coming up with ideas, could use features from existing apps
- Idea suggestion: a map that pinpoints incidences or illness reports on public transport

To do by next session: Mockups of pages on paper at least.

#### After meeting agreements:

Home: A dashboard displaying the latest crime alerts, crime statistics and trends, community events and activities, and personal notifications. The home page would also include quick links to the other sections of the site, such as the Crime Alerts, Community & Lost & Found, User Profile, and About Us pages. We can doa widget system on the home page too.

Crime Alerts: A page showing real-time crime alerts from the police API and user submissions. The page would include a map view that marks the location of each crime incident, allowing users to easily visualize the crime activity in their area. The page would also include a live discussion section, where users can share information and discuss the crime incidents.

Community & Lost & Found (split into two different pages): A page that combines the functionality of both the Community and Lost & Found pages. The page would allow users to post about local events, lost and found items, and other community-related topics, with a map view. Users can also search and view posts made by others in their area.

User Profile: A page where users can manage their personal information, customize their profile, change their password, and manage email notifications. This page would give users complete control over their user experience, allowing them to tailor the site to their preferences and needs.

About Us: Information about the Crime Alert Web app, its mission, and team. This page would provide users with background information on the site, its goals, and the people behind it.

Emergency Response Guide: A page providing users with information and tips on how to respond in various emergency situations, such as fires, natural disasters, and medical emergencies. The page would include a section for each type of emergency, with information on what to do, what to bring, and who to call. It would also include a panic button that users can activate in the event of an emergency, which would provide them with immediate access to the relevant emergency response information and tips.

Police Stations: A page that displays the nearest police stations based on the user's location or entered postcode/address. The page would also include information about each police station, such as its address, phone number, and hours of operation. This page would make it easy for users to find the police station nearest to them and get the help they need in case of an emergency.

### Page allocation for mockups:

Ismail - Home

Kris - Crime Alert

Aadil - Community

Zeerak - User Profile

Meghna - Emergency Response PageSimon - Police Stations

Lakhminder - L&F

About Us

### Personas for everyone:

Ismail - Police Officer

Kris - Elderly

Aadil - Business Owner

Zeerak - Teacher

Meghna - Mother

Simon - Student 18+

Lakhminder - n/a

Next tutor meeting: 13/02/2023

Next group meeting: 13/02/2023

### Tutor Meeting 2 - 13/02/2023

### Register:

Christian (Chairman)

Aadil, Ismail, Zeerak, Simon, Meghna, Kris, Lakhminder(absent due to family emergency)

Venue: Room 118A in the Computer Science building

Main subject of the meeting: Showing mockups and personas. Sharing our ideas with Chrisitan

#### Notes:

- Personas are very good, keep them different from each other with potential different user access
- · Think about how your app will be used by users
- Pleased with the pages. Explained that everyone will be responsible for a page and each page will essentially have sub features
- Need to think about the confidentiality of the app too, how to hide anything unpleasant and how we are going to implement any identity authentication.
- · Virtual Machine and Git should be out soon.
- We are ready for S1 submission
- · Need to finish any touchs on mockups and git commit them when we can.
- Figma is the best thing to do M1 mockups.

Next tutor meeting: 20/02/2023 Next group meeting: 13/02/2023

### Group Meeting 2 - 13/02/2023

Main subject of the meeting: Setting grounds and details for the web app. Finalising things like layout, features and name.

Venue: Lower ground seating in Computer Science building

#### Register:

Aadil, Ismail (Chairman), Zeerak, Simon, Meghna, Kris (Secretary), Lakhminder(absent due to family emergency)

### Decided format for the navigation bar:

- 1. Home
- 2. Crime Alerts
- 3. Emergency Stations (name changed)
- 4. Community
- 5. Lost and Found
- 6. Emergency Guide
- 7. Profile
- 8. About Us (decided it will go on the bottom)

### Decided standard layout:

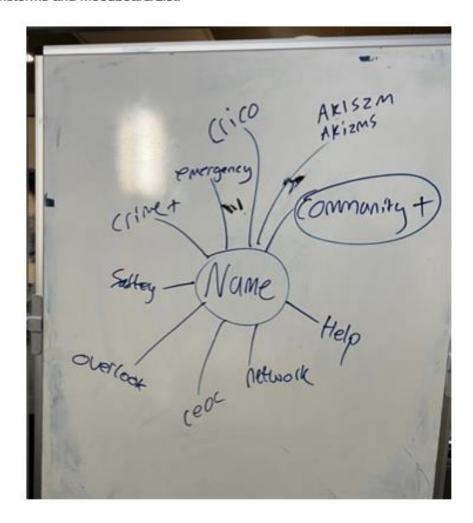
- Home layout will have Logo, Name, Nav Bar and widgets below
- Other pages will have the Bar at the top and the remaining page at the bottom below it. Logo can be smaller in the corner of the bar

### Name Ideas:

- · Can combine our initials for a name?
- VigilantX
- SafeCity
- AlertMe
- CrimeClue
- SafeEye
- VigilantEye

- · VigilEyes (vigilante + Eyes)
- GuardDog
- EyeSpy
- EyeOnCrime
- EagleEye
- TrackDown
- StreetEye

### Brainstorms and Moodboard/List:



Meeting Diary - Team 20 11



Name we decided on: Community+ (Community Plus)

Logo Ideas:



- · All agreed on the bottom one.
- All agreed on using Meghan and Aadil's template for the Persona (they used the same one)
- · Agreed content of pages on PDF on Teams

Next Meeting: All to have made Figma mockups to show, Personas on the same format, S1 ranking and uploaded necessary documents to gitlab.

Next tutor meeting: 20/02/2023

Next group meeting: 20/02/2023

### Tutor Meeting 3 - 20/02/2023

#### Register:

Christian (Chairman)

Aadil, Ismail, Zeerak, Simon, Meghna, Kris, Lakhminder(absent due to family emergency)

Venue: Room 105 in the Computer Science building

Main subject of the meeting: Showing Figma mockups and agreed persona templates. Sharing our ideas with Chrisitan and recieving feedback

#### Notes:

- Figma mockups look very professional and aesthetically pleasing
- · Very well co-ordinated with one another
- Just be wary of giving us too much to do. Potential way of tackling that is to decide on some pages that can be dismissed if it gets too much.
- . In terms of Lakhminder, N/A on his S1 Ranking
- · Persona template is very good
- · We do not need to include Lifestyle as a whole section on the persona
- · Better to have it in the bio and keep it concise
- · Need to decide on headings for persona so we have coherent personas
- · Format of S1 Ranking can be anything as long as you provide it

#### Tasks we need to do before M1:

· Ensure all personas are coherent

- · Export Figmas mockups
- S1 Rankings
- Cl Pipeline
- · Overall nearly ready for M1 Submission just need to brush up on a few things

## Ismail responsible for meeting diary.

Next tutor meeting: 27/02/2023 Next group meeting: 20/02/2023

## Group Meeting 3 - 20/02/2023

## Register:

Aadil, Ismail, Zeerak (Chairman), Simon, Meghna (Secretary), Kris, Lakhminder(absent due to family emergency)

Venue: Lower ground seating in Computer Science building

Main subject of the meeting: Declaring persona headings, S1 Rankings, Kanban Cards, CI Pipeline Test and plans for submission

#### Notes:

- All agreed that we liked the personas with the heading "How this person will use the app" and it was vital to keep it in the persona
- · Needs was kept in the persona headings too
- · We established the following headings:
  - o Criteria for success

· How will this person use the app

Needs

Values

Fears

· Estabilished a ranking matrix to rank everyones work against the S1 Ranking

Guide. Members work was then ranked in order of the scores

We then wrote <100 words about everyones work.</li>

Kanban cards were looked over and edited ready for M1 submission.

The concept was written up by the group explaining the purpose of our solution and its features and who its target audience is.

Meeting Diary will be exported to a PDF ready for M1 Submission.

Aadil agreed to be responsible to upload M1 submission for the rest of the

team

Next tutor meeting: 27/02/2023

Next group meeting: 27/02/2023

Tutor Meeting 4 - 27/02/2023

## Register:

Christian (Chairman)

Aadil, Ismail, Zeerak, Simon, Meghna, Kris, Lakhminder

Venue: Room 105 in the Computer Science building

Main subject of the meeting: How was M1 submission, Meeting Lakhminder and finding out his status, sharing our next plans with Christian and what we should be aiming for in S2.

### How was M1 submission?

- · Overall very good
- · All read and were happy with the document produced
- A little bit confused on S2 at first but the documentation released in the annoucement helped a lot.
- Aadil successfully joined all our documents together and uploaded them and everything went smoothly.

## Meeting Lakhminder and finding out his status

- Met our team member Lakhminder who has been abscent since before this meeting
- · Explained his situation to us, he has informed welfare
- Waiting to hear back on his situation from welfare and how much work he is required to do
- We have allocated a page to him so he would be ready to do tasks should welfare say he needs to do them
- · Informed him about where the team are now
- Ready to proceed with the work and catchup

## Sharing our next plans with Christian/what we should aim for in S2

- · To focus on the S2 submission now
- · All to reserach a part of our project (the technical aspect of it)

17

- Christian advises us to choose topics that we belive will be most beneficial to us and most relatable to the project such as API integration.
- Chrisitan advises us to make sure the documents can be used by all members of the group.

Next tutor meeting: 06/03/2023 Next group meeting: 27/02/2023

# Group Meeting 4 - 27/02/2023

## Register:

Aadil (Secretary), Ismail, Zeerak, Simon, Meghna, Kris (Chairman), Lakhminder

Venue: Lower ground seating in Computer Science building

#### Main subject of the meeting:

- · Ensuring Lakhminder is most up to date
- Resetting the university VM
- · What tech report everyone will be doing
- · Looking at how long everyones feature will take
- · Getting everyone set up on Jhipster

## Ensuring Lakhminder is most up to date

- · Lakhminder informed of us his situation
- · We told him as a group what we have done so far
- · Where to find documents if he needs help
- · Told him how we communicate when we are not meeting in person (teams)

- What he should focus on now whilst he waits for welfare to respond (parts left for him).
- Walked him through setting up git on his laptop so he can commit to the repo
- · Exampled a git commit for him
- · Quick overview of gitlab

## What tech report everyone will be doing

- · Looked at the potential tech reports given in the announcement
- Listed the feature in our program and decided which ones would be most beneficial.
- · In terms of APIs, we will have:
  - o a map API
  - crime API
  - verification API
  - widget API

## Tech reports decided on:

- · Library/API Integration Ismail
- Spring Boot Kris
- · Angular Simon
- Database Zeerak
- · Security Aadil
- Testing Meghna
- · Development processes Lakhminder

All the tech reports that everyone is doing is somewhat relevant to their own page and documentation will be written so that anyone can pick up each others tech report and benefit from it.

Looking at how long everyones feature will take

· All looked at our own kanban card at roughly estimated how long it would take to

complete

· Then compared all our times with each other

All times in hours roughly average 18

· Some members estimated a higher time however technical ability in the team

ranges so some may finish early and be able to help others.

Getting everyone set up on Jhipster

Everyone installed either IntelliJ or Visual Studio Code (personal preference)

· All performed Jhipster installation following the documentation on Jhipster

website

Some installations differed because of everyones individual machines

All successfully built the website in their IDE using the terminal command./mvnw

· All successfully loaded the website up onto their browser

All helped each other out since everyone is running different OSs

All to at least produce their tech report before the next tutor meeting

Next tutor meeting: 06/03/2023

Next group meeting: 06/03/2023

Tutor Meeting 5 - 06/03/2023

### Register:

Christian (Chairman)

Aadil, Ismail, Zeerak, Simon, Meghna, Kris, Lakhminder

Venue: Room 225 in the Computer Science building

## Main subject of the meeting:

- · Progress on tech report
- · Feedback for M1 and what to be weary of for next submissions

#### Notes

- · All briefly explained how far they were on their tech report
- All explained how they think their tech report will be beneficial to the rest of the team
- · Christian provided feedback for our M1 submission
  - · All sections were done extremely well
  - Concept of the project was explained very well
  - Very clever and clear matrix ranking for s1 rankings
  - · Meeting diary was detailed and produced to a good standard
  - Where we lost marks: Personas were placed in the document but not really explained. Also some features were not in the mockup that were mentioned.
  - Something to be weary of in future submissions: make sure to explain all
    assets of our project, even if it is with a brief description because this can
    justify why you have used this persona/feature or any other asset from your
    web app.
- Question about tech report: can i include code in it? A: Yes if it will be beneficial for your web app

 Overall, smooth progress so far and continue working at this pace for a really good mark at the end of the project.

Next tutor meeting: 13/03/2023 Next group meeting: 06/03/2023

## Group Meeting 5 - 06/03/2023

## Register:

Aadil, Ismail (Secretary), Zeerak, Simon, Meghna, Kris, Lakhminder (Chairman)

Venue: Lower ground seating in Computer Science building

## Main subject of the meeting:

- · Progress on tech report (quick glances)
- · Lakhminder status
- · Any help needed?
- · Clarifying any loose ends
- · Plans after S2

#### Notes:

- All glanced over each others tech report, some were more complete than others but some people hadn't finished theirs which is understandable and there is quite a lot of time left for completion.
- Lakhminder has emailed welfare and they advise he contacts the module lead to find out what he should complete.
- Simon needed help building and running the website on his machine so we helped him out.

- All discussed the tech stack/CI submission and what to include, based on the announcement made on canvas to clear up what everyone should include in their submission.
- Since there is sometime after S2 before our tutor meeting. After S2 submission, everyone should try and briefly design their database element for their page and then we can all join them together to make one big database. This should make producing the database/web app easier and relationships can be defined in the next meeting too.
- Overall, a short, concise meeting to ensure everyone is on track for S2 submission.

Next tutor meeting: 13/03/2023

Next group meeting: 13/03/2023

# Tutor Meeting 6 - 13/03/2023

## Register:

Christian (Chairman)

Aadil, Ismail, Zeerak, Simon, Meghna, Kris, Lakhminder

Venue: Room 225 in the Computer Science building

## Main subject of the meeting:

- · How was S2 submission?
- · What marks should we focus on attaining the most?
- · What to focus on in M2 submission?

### Notes

- All expressed how we felt about S2 submission. Overall, good submission, some struggled with understanding the tech stack/ci but got there in the end. Harder for some than others for example: was harder to demonstrate testing on our system yet because there isn't much to test. But overall, everyone managed to upload something useful to rank.
- · Christian explained what we should focus on the most:
  - giving detailed explainations for our screenshots or kanban cards rather than just placing them in the M2 document
  - Providing the Venue in the Meeting Diaries, small detail missed and useful addition
  - What feature we should put in: Map or a useful API which shows some sort of functionality, doesn't have to be finished but should demonstrate some sort of sophistication
- Christian walked through the rubric and explained each bullet point to us, what we should aim to include in the M2 submission.
- Most of the bullet points we had done so we are in a good position
- Focus on providing detail to the marker on how and why a feature needs to be implemented and how you will manage your time when doing so
- Advice given for the report: if you were to give another group your report they should be able to pick up from where you left off and understand how and why you implemented your features. Therefore, you should make you report as technical and sophisticated as possible.
- Question: what is the S3 submission? A: You will have to provide features that
  you have implemented into your web application. They should be at lest 60-90%
  developed and should show you have contributed to your team.

Next tutor meeting: 20/03/2023

Next group meeting: 06/03/2023

# Group Meeting 6 - 13/03/2023

#### Register:

Aadil, Ismail, Zeerak (Chairman), Simon, Meghna, Kris (Secretary), Lakhminder

Venue: Lower ground seating in Computer Science building

## Main subject of the meeting:

- · Fix any technical issues
- · Discuss what we have for M2 already and what needs to be done
- Splitting tasks between us for M2
- Ensuring everyone has S3 tasks and fair allocation
- · Writing any M2 documents we need to write up now

#### Notes:

- · Zeerak fixed his entities during the meeting and pushed them to git
- We troubleshooted with the broken map on the emergency station and crime alert page and figured out that the image for the map wasn't loading but some functionality for the map is there
- The map could be our sophisticated feature for M2 that we put on the MVP report if we can fix it. Otherwise we can express what we know is wrong and how we are thinking of fixing it, unless there is another sophisticated feature we can upload.
- Lakhminder still hasn't had a reply from welfare.
- We completed S2 rankings using our matrix from previous ranking. We all
  contributed to the ranking and writing the description for each person.
- GDPR and DPIA form was looked at and changed to match our solution. The DPIA has 7 sections and so was split between the group to fill out before the deadline. The allocations are below:

#### 1. Zeerak

- 2. Aadil
- 3. Simon
- 4. Ismail
- 5. Kris
- 6. Lakhminder
- 7. Meghna
- Everyone agreed on the deadline for the S3 submission: 16/04/23. This gives
  everyone plenty of time (in the holidays too) to implement their page/features to
  a high standard.
- Meeting Diary is being done by Ismail. 98% up to date obviously apart from the
  meeting currently in progress. That will be put into the M2 submission by himself.
   Venues have been added in this meeting too. Tutor sent an email of location
  every week so backtracked and added the venue into the meeting diary.
- Everyone looked at the JDL file in our repo and agreed to place entities in their to make it easier rather than having trouble pushing jdls since Zeerak's wouldn't show for some reason.

M2 submission is on teams so everyone will add to the document and one person can upload it

Next tutor meeting: 20/03/2023

Next group meeting: 20/03/2023

## S3 Task Allocation and Planning

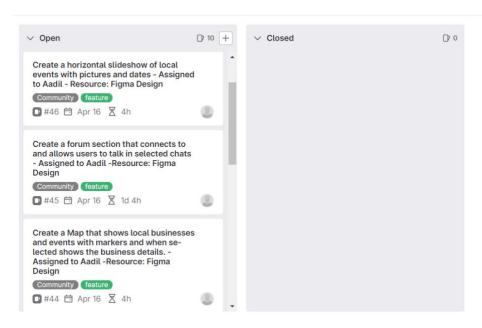
S3 task allocation & planning (10%)

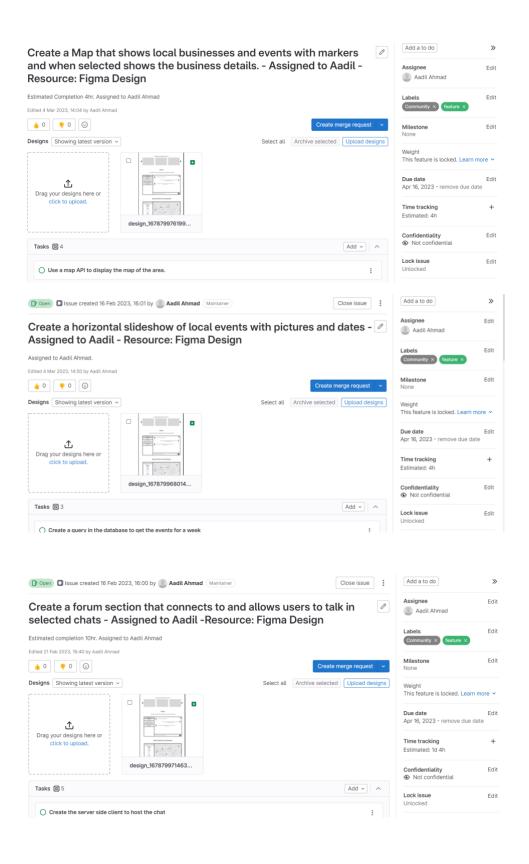
- 1. A Kanban screenshot with the cards.
- 2. Each card should have a brief introduction, a due date and the resource(s) needed.
- 3. Kanban should have at least two columns: e.g. Processing and Done.
- Each feature should be at least associated with one card.
- 5. Task allocation should be reasonable and equal.

#### Kanban Cards

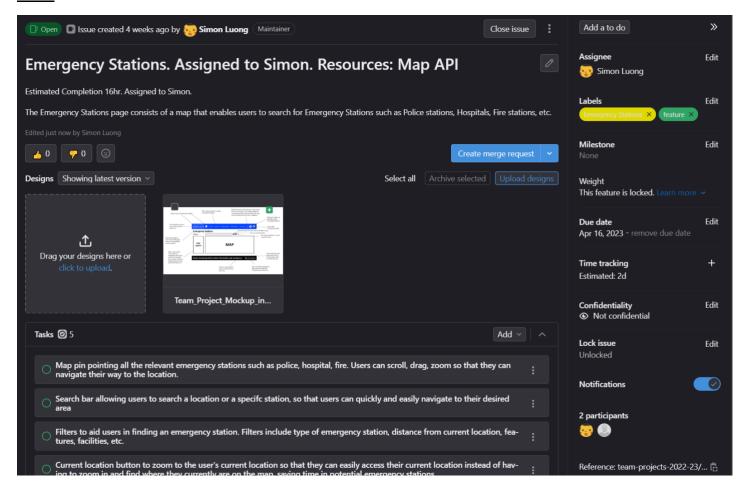
Here is our Kanban board shown as having two columns Open, Closed with a brief description of the feature, who it is assigned to and the resource for the feature which is linked in the Kanban card. It also contains the due date which we decided as a team and the agile estimated time it will take to complete each card. Below you can also find the further details of the Kanban cards regarding everyone's status on their tasks, how long it will take and their responsibilities during the process. So far, S3 tasks have been allocated to team members and swift progress is being made.

#### Aadil

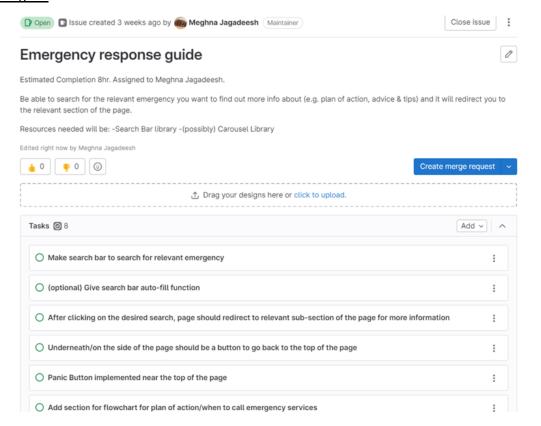


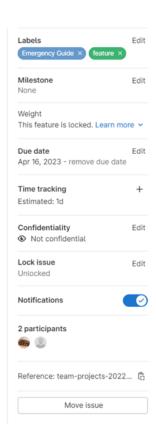


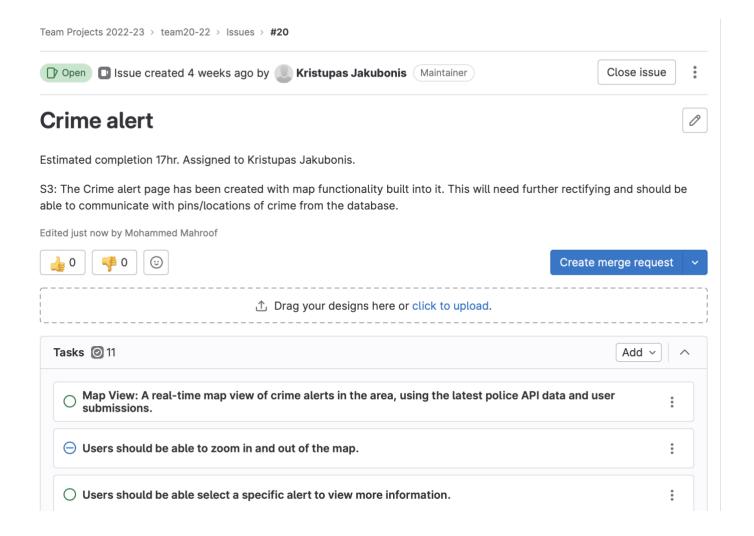
#### Simon



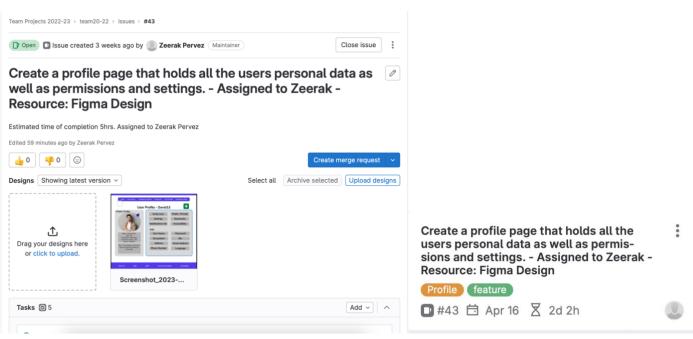
## Meghna



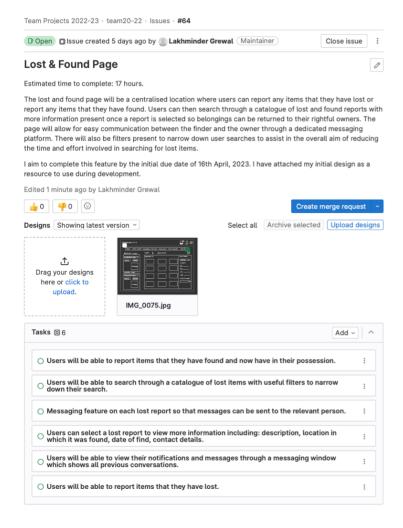


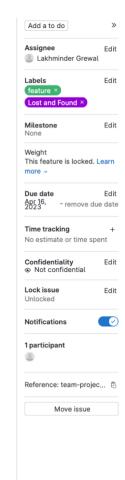


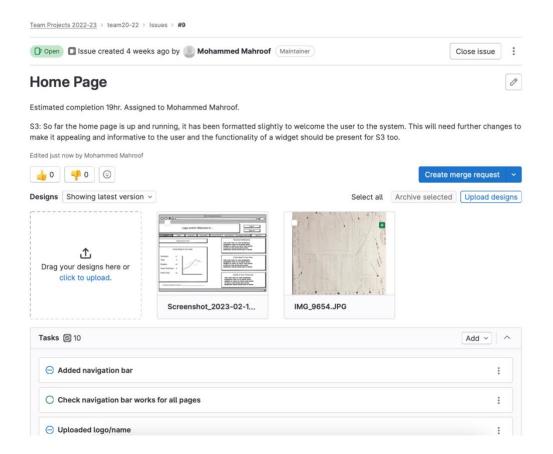
## <u>Zeerak</u>

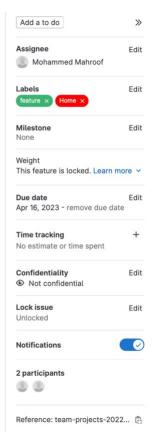


#### Lakhminder









Each team member has tasks for S3 submission and the due date for their tasks has been clearly specified. Each team member has tasks that all roughly average a similar time. However, completion of tasks earlier can be used to help other members of the team who may have less technical knowledge and need further support. This makes completion of work efficient and on track to meet deadlines which ensures a successful project.