Risk Assessment Key

The Matrix interprets values for the severity of the risk (a) and likelihood of occurrence (b)  
(taking into account the frequency and duration of exposure) on a scale of 1 to 5,   
then multiply them together to give the rating band:

|  |  |
| --- | --- |
| Hazard Severity (a) | Likelihood of Occurrence (b) |
|
| 1 – Trivial (eg formatting issue, no impact on functionality or users) **2 – Minor** (eg may impede functionality)  **3 – Moderate** (eg minor security hazard or may cause build to break)  **4 – Serious** (eg project security vulnerability or build will break)  **5 – Fatal** (eg important sensitive information leaks, or multiple above) | **1 – Remote** (almost never)  **2 – Unlikely** (occurs rarely)  **3 – Possible** (could occur, but uncommon)  **4 – Likely** (will likely occur)  **5 – Very likely** (will occur) |

The risk rating (high, medium or low) indicates the level of   
response required to be taken when designing the action plan.

**Trivial**

**Minor**

**Moderate**

**Serious**

**Fatal**

|  |  |  |
| --- | --- | --- |
| Rating Bands (a x b) | | |
| **LOW RISK**  **(1 – 8)** | **MEDIUM RISK**  **(9 - 12)** | **HIGH RISK**  **(15 - 25)** |
|  |  |  |
| Continue, but review periodically to ensure controls remain effective | Continue, but, if possible, implement additional reasonably practicable controls where possible and monitor regularly | Implement additional controls wherever possible – handling this risk determines the quality of product. |

**Remote**

**Unlikely**

**Possible**

**Likely**

**Very likely**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1** | **2** | **3** | **4** | **5** |
| **2** | **4** | **6** | **8** | **10** |
| **3** | **6** | **9** | **12** | **15** |
| **4** | **8** | **12** | **16** | **20** |
| **5** | **10** | **15** | **20** | **25** |

| # | Risk Description | Cause | Risk Event | Severity  A | Likelihood  B | A x B | Additional controls required |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | **Computer use**  Eye strain, RSI, etc. | Spending long times working on a computer may cause minor health issues, particularly when personal media consumption is increased due to quarantine. | Repetitive Strain injury / Eye strain / other conditions may occur by spending too much time seated, working on a screen. | 2 | 3 | 6 | Ensure workplace is appropriate for spending large amounts of time – appropriate seat & adjustable monitor height. |
| 3 | **Lack of Time** | With many deadlines piling up, time management will be the number 1 determinant factor on the outcome of this project. | Poor time management will result in lack of functionality or features, whether it is in the product or documentation. | 4 | 5 | 20 | Make a work plan, ensure KANBAN board is used & functional. Set reasonable MVP and focus on completing it before moving on to other aspects of the project. Employ MoSCoW principle to identify tasks worth investing time into. |
| 4 | Lack of technical understanding | With many different technical methods, and little time to practice them, employing them correctly under the immense time pressure will be challenging. | Failure to implement methods correctly may result in long term build incompatibilities & failures, security hazards or loss of functionality. | 3 | 3 | 9 | Consult experts where needed – ensure MVP is in line with technically less challenging concepts. |
| 5 | Burnout/Personal health | Quarantine and intense schedule affects everyone’s mental fortitude. Burnout can happen easily with the factors associated with heavy deadlines, little social contact and limited exercise. | Burnout will result in a complete lack of time management, and given that it is an individual project, this will result in a drastic drop in completion of the product. | 4 | 2 | 8 | Exercise regularly, socialise virtually and ensure a healthy work-life balance. |
| 6 | Covid-19 | Currently in the midst of the Covid-19 pandemic, which is heavily disruptive to way of life. | May put stress on online services or disrupt functionality through other unforeseen side effects. | 3 | 1 | 3 | The situation seems to be under control and the software development industry is largely unaffected in comparison to others. |
| 7 | Security & data safety | it is important to ensure no personal information is leaked, and that the system is safe from intrusion. | MySQL GCP instances are frequent subject to hack attacks. GitHub repository is set to public, so information is readily accessible to anyone. | 2 | 2 | 4 | Ensure GitHub only shares harmless information – back up data in order to be able to reinstate database in case of hack attack/error. |
| 8 | No significant additional risks were identified during the procedure of the project. |  |  |  |  |  |  |

Post-project Risk analysis

| # | Risk Description | Cause | Risk Event | Severity  A | Likelihood  B | A x B | Post-Project evaluation |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 2 | **Computer use**  Eye strain, RSI, etc. | Spending long times working on a computer may cause minor health issues, particularly when personal media consumption is increased due to quarantine. | Repetitive Strain injury / Eye strain / other conditions may occur by spending too much time seated, working on a screen. | 2 | 3 | 6 | This risk was minor and I did not suffer any serious side effects. Using dark mode was helpful to reduce eye strain. |
| 3 | **Lack of Time** | With many deadlines piling up, time management will be the number 1 determinant factor on the outcome of this project. | Poor time management will result in lack of functionality or features, whether it is in the product or documentation. | 4 | 5 | 20 | This risk was correctly identified as major risk at the start of the project by many people. The areas that suffered on the project were certainly due to a lack of time, despite the deadline being extended by two days. A long weekend caused by bank holiday contributed to the lack of time. |
| 4 | Lack of technical understanding | With many different technical methods, and little time to practice them, employing them correctly under the immense time pressure will be challenging. | Failure to implement methods correctly may result in long term build incompatibilities & failures, security hazards or loss of functionality. | 3 | 3 | 9 | This risk was relevant in both shaping the project MVP and implementing it. I acquired help from Jordan where necessary, however there are parts of the code which require maintenance for long-term sustainability. |
| 5 | Burnout/Personal health | Quarantine and intense schedule affects everyone’s mental fortitude. Burnout can happen easily with the factors associated with heavy deadlines, little social contact and limited exercise. | Burnout will result in a complete lack of time management, and given that it is an individual project, this will result in a drastic drop in completion of the product. | 4 | 2 | 8 | This risk was more major than anticipated – many people, including myself showed symptoms of burnout over the past 1-2 weeks, both caused by the quarantine and heavy workload. It likely affected my time management. |
| 6 | Covid-19 | Currently in the midst of the Covid-19 pandemic, which is heavily disruptive to way of life. | May put stress on online services or disrupt functionality through other unforeseen side effects. | 3 | 1 | 3 | Having lived with the pandemic for a long time now, this risk was correctly identified as minor, although the potential of getting infected should have been included. Despite this, it had little influence on the project, and its main threat was the impact on mental health. |
| 7 | Security & data safety | it is important to ensure no personal information is leaked, and that the system is safe from intrusion. | MySQL GCP instances are frequent subject to hack attacks. GitHub repository is set to public, so information is readily accessible to anyone. | 2 | 2 | 4 | The database was backed up using a sql injection file, so the data was at no risk of being lost. Changing the git repository to public in the midst of the project did reveal my VM IP address and user details, however, which I should have remedied by storing them in a config file instead. |