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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Identification** | | | **Analysis** | | | | **Planning** | | **Monitoring** | |
| **Hazard** | **Category** | **Type** | **Outcome** | **Probability** | **Timing** | **Severity** | **Avoidance** | **Contingency** | **Analysis Indicators** | **RPN\* (PxSxAI)** |
| Underestimating how much time the project will take | Product | Estimation | Web application won’t have as much features as planned | Moderate | After planned software methodology | Serious | Plan aims that I believe I would have the time to complete | Build in increments so the project can still be considered functional after each increment | The amount of time left versus how many increments left to be developed | 252 (6x6x7) |
| Underestimating the skill needed for the project | Product | Requirements | Quality of the web app won’t be as good as I hope | Moderate | During software implementation | Catastrophic | Plan aims I feel I could complete & continue to practise the skills needed | Rollback to a previous version without the attempt of the feature from the git repository | Current skill compared to current aims | 160 (4x8x5) |
| Features implemented don’t actually fit the aim or is extremely broken and it is difficult to remove | Product | Requirements | Extra time is taken to try to remove the features | Low | During software implementation | Catastrophic | Plan aims I believe are useful & constantly test code to find problems early | Use and frequently commit to a git repository so it is easy to revert to working version of the code | Test Results | 72 (3x8x3) |
| Poor methodology combination choice | Project | People | Organisation of the project is messy | Low | During software methodology | Serious | Fully think out the methodology choice before applying it | Fully think out a back-up methodology choice | Current progress using the current methodology | 70 (2x5x7) |
| Unable to find users to help test my project | Project | People | Can’t perform my planned Guerrilla Usability Testing | Low | During software testing | Tolerable | Try to ask for assistance way in advance | Put more focus on other types of testing to compensate | Number of confirmed testers and their well-being | 63 (3x3x7) |
| Requirements are lackluster to want is needed or doesn't end up fitting the project | Project | Requirements | Quality of the web app won’t be as good as I hope | Moderate | During software implementation | Tolerable | List all possible requirements that should be implemented, thinking them out first | Update requirements if possible | Current progress with the current requirements | 60 (5x3x4) |
| Overestimating how much time the project will take | Project | Estimation | Have to implement new features which I didn’t take account for | Moderate | During software methodology | Tolerable | Plan aims that I believe is enough for the time I have | Draft up more requirements for the project | The amount of time left versus how many increments left to be developed | 56 (4x2x7) |
| Hardware failure leading to a loss of work and time | Project | Technology | Time taken to get new hardware or redo/get back work | Low | During software methodology | Catastrophic | Take care of hardware being used | Back-up to a separate storage location (e.g. cloud, USB) with a spare computer to move work to quickly | Hardware current performance | 32 (2x8x2) |
| Pusher’s services are down/removed so I can’t send Pusher Events | Project | Tools | Users can’t communicate in real-time | Low | During software methodology | Catastrophic | Keep up-to-date with the current Pusher status to known what is happening | Have a back-up service that is set-up to quickly transfer use to | Pusher’s current service status | 2x8x2 |
| Laravel’s services are down/removed so I can't build the base | Project | Tools | Can’t use Laravel to build the project | Low | Before first software implementation | Catastrophic | Build project as soon as possible using Laravel | Use different tools to create the project e.g. Java Back-end | Laravel's current service status | 16 (1x8x2) |
| Software tools don’t work together well i.e. Laravel/CSS Bootstrap | Project | Tools | Can’t use the corresponding tool combination | Low | During software implementation | Serious | Practise using CSS Bootstrap to make sure that this is the right choice | Deal without using CSS Bootstrap or find an alternate tool if possible | Web page visuals from CSS files | 16 (2x4x2) |

\* Risk Priority Number is based on the probability of the risk occurring from 1-10, the severity of the risk from 1-10, and how obvious the risk could occur before each increment based on the analysis indicators from 1-10