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| Risk | Risk Statement | Response strategy | Objectives | Likelihood | Impact | Risk Level |
| GitHub | Any source code pushed to GitHub could potentially contain information that hackers would find useful when trying to a maliciously alter the project. The source files could potentially contain hard-coded login credentials which could allow for data leaks. | Use stronger passwords and usernames than just “admin” or “root”, and keep them regularly updated. | Reduce the likelihood of hacking and data leaks. | Medium | High | Medium-to-High |
| Illness/Covid 19 | The situation with Coronavirus means anyone is at risk of falling ill and it is unpredictable. This could mean work not getting done or being out of action for a short or considerable amount of time | The government have set rules and guidelines on the best protective measures. Making responsible choices in your personal life e.g. self isolating, social distancing. This could be key in making sure you are able to work to your full ability and capacity. | Reduce the likelihood of illness or coronavirus in order to complete project to best ability | medium | high | Medium-high |
| Time constraints | With individual work it can be very easy to leave things last minute or to think you are on track and suddenly it reaches the end and you have little or no contingency harder this time as front end also involved and a week of training | Allow for contingency time by first using the guideline (project spec) or creating your own. Then try and surpass this rather than bare minimum. This could help finish ahead of schedule and check work | Reduce chances of running out of time or not leaving contingency time to double check or even improve code. Make use of evenings and weekends needs to be done | medium | high | Medium-high |
| Losing track | During the project there will be changes to the code and situations where you have to make some or many changes. We must make use of Git as it there to keep track of changes. Important to remember this at all times | Regularly commit your changes with helpful messages so you can revisit and understand | Keep track of progress and look on changes and know exactly what you did and were trying to achieve | medium | medium | medium |
| GCP backups for your instance | There is a chance that you could lose your tables on your instance or accidentally change them in a way you did not intend. Once you have everything set up as close to perfect create a back up manually and rename it. This helped me twice | Open your gcp every now and then to check your app is working and also keep an eye on any changes | To help make sure database tables are ready for when I present and demonstrate my application. Also given that you have allowed all IP addresses puts you at risk | medium | high | medium |
| Getting enough test coverage | The more test coverage you have in an on-site situation the more confidently you can explain and show results to the client  It also allows you to spot errors and mistakes | The strategy is to run the tests covered in lectures and demos and during our spring lecture there was very good examples to apply to our own project | The aim of course is to use SonarQube however intellij also allows you to see coverage so you get a rough idea | high | high | high |
| Getting enough test coverage | The more test coverage you have in an on-site situation the more confidently you can explain and show results to the client  It also allows you to spot errors and mistakes | The strategy is to run the tests covered in lectures and demos and to also see Chris’ example for his IMS demo. | The aim of course is to use SonarQube to see where test coverage is lacking and to use necessary lectures and demos to implement in our own | high | medium | high |
| Making the product realistic to real front end | Minimum of three tables and crud functionality therefore chance of backend going wrong and not coming through on front end. | The strategy is to take small steps start even with one table and really get the hang of back to front end and simply follow the process. Expect lots of frustration but each mistake is a step closer | My aim was always to have fully functioning CRUD operations as per the spec. Only then will I go about possibly implementing extra features. | high | medium | low |
| Tests not compiling properly | The more packages and classes you have the more you have to remember regular commits so you don’t leave behind any files. This can cause Jenkins to keep failing as I found out toward to the end my main class and player repository never even made it to git | Use intellij and its useful way of easily committing and changing branches etc without even going into Git. This can help you see exactly where you are regarding progress and on what branch | My aim was to commit far more regularly then the last project rather than work in big chunks which I believe I have achieved this time round but still fell to bad habits towards the end | high | medium | medium |
| Stricter measures regarding the MVP | Due to some of the recent ongoings there were changes to the specifaction to make things more manageable however this means that what is left now must be adhered to as strictly as possible to ensure the best grade possible | Strategy should be to get all extra features or ideas out of my head and strictly achieve the MVP and then build on that foundation that way you have a much stronger foundation and reassurance you have met targets | My aim was always to one way or another have 3 tables with crud functions and 80% coverage I knew that once this was done the rest was just about a simple front end nothing fancy and docs in order | medium | medium | high |
| New Technologies | This project as the last involved even more new technologies such as spring which is very different compared to manual sql statements and although easier it is still something that needs getting used to hence it feels difficult especially foreign key implementations actually working | My strategy was to use the lectures and a mock example that I could go along with during lectures so learn by doing. In terms of mapping I still struggled but my solution was to one way or another still be able to crud my three tables and have a working front and back end | Learn spring as quickly as possible using examples to make sure I take It in better and to implement it in my project while it is fresh in my memory and again remember to commit frequently. | medium | high | medium |
| GCP to SPRING | In the last project the only thing to worry about with gcp was the idea of it being hacked however this time round it was the case of even establishing a connection to it in the first place using spring | Strategy is to use all available online resources and understand the importance of dependencies in the pom.xml file. The right dependencies and application.properties file is all it takes to make or break the connection | Find the best tutorials and speak to colleagues who have already achieved this and see what I am doing right as well as wrong. | medium | high | medium |