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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 | 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 | 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 |
| SQL Prepared Statements | Speed is an important factor when it comes to performance therefore ways to increase it should always be looked at.  SQL injection can also be a problem e.g. Sony were affected | Prepared statements can help you avoid repetition of statements as you can chage parameters and increases speed of execution. Hence performance  Prevents SQL injection | This will be explained in the improvements section in my presentation as this could have been an improvement regarding speed and security | high | high | low |
| 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 life IMS functions | Although the spec is for simple CRUD functionality to all 3 tables it is important to remember that in an actual IMS there are certain features a client would appreciate and would prevent a non realistic entry into your database. | The strategy is to try and implement some realistic features such as invalid name entry’s and special characters being in a phone number  Also making use of the stock/quantity column in an items table. It should decrease if being reserved/ordered by someone | My aim was always to have fully functioning CRUD operations as per the spec. Only then will I go about possibly implementing these features by relying on my good understanding of Java and SQL. | low | medium | low |