UNIVERSITY OF YORK

DEPARTMENT OF COMPUTER SCIENCE

ENG1 Group Assessment 1
Team 1

Auber

Risk1.pdf - Risk Assessment and Mitigation

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For our project's risk assessment, we have decided to use the following categories of risk to identify which part of the project was threatened by each risk:

- Product
    - Risks affecting the quality or completeness of the final product.
- Project
    - Risks affecting the project schedule and/or the resources of the project.
- Technology
    - Risks which involve something going wrong with hardware and/or software, either on the team's end or the customer's end.
- Customer
    - Risks affecting the customer that we're developing the product for.
    - Traditionally, this category is called 'business', but in our case, 'customer' is more accurate.

We also decided that each risk does not necessarily have to fit into one of these categories, it could be in several at once.

We decided to use these categories as they are widely used in industry and cover pretty much every area we'll need during this project [1], so it'd be good to get used to them now before applying them in a real world situation.

Our scale of likelihood is rated as one of the following:

- Low
    - Risks that are unlikely to occur.
- Medium
    - Risks that have equal chance of occurring as not occurring.
- High
    - Risks that are likely to occur.

We have also rated each risk on a severity scale, as follows:

- Low
    - A risk that would have a minor impact on the project, but we could easily resolve.
- Medium
    - A risk that may delay the project plan by a few days/weeks, but we'd be able to recover from.
- Critical
    - A risk that would have a major impact on the project, severely delaying the deliverability of the project.

We believe that having the three level approach to both likelihood and severity is the best way forward as it allows us to have a sufficient level of detail to understand and interpret each of the risks involved, without the risk of having unnecessary detail - more levels may mean that we spend longer trying to choose the likelihood and severity of each risk than actually working out how to mitigate them.

We have presented our risks, categorisations and mitigations taken below in Table 1. We've also provided extra detail for each risk as to why we chose their positions on the likelihood and severity scales, for justification purposes.

Table 1 - Tabular Presentation of Risk Assessment, Categorisations and Mitigations

Risk ID	Risk Type	Description	Likelihood	Severity	Mitigation
R1	Project / Technology	Libraries or engines might have unexpected bugs	Medium [All code is prone to bugs, it's unlikely that our libraries / engines have none]	Medium [This may stop us from being able to implement features if the bug renders it impossible, though a bug like this is unlikely to occur]	Use common libraries that are likely to work, as they're widely used in the industry
R2	Project	Team member may become ill and unable to work on the project	High [Given the current events, it is likely that a team member will get ill and not feel up to working on the project]	Medium [This will mean that the member won't be able to work on their tasks. However, the rest of the team should be able to cover for this]	Make sure that more than one person knows what's happening with something, so we can keep working if someone's ill
R3	Project	Team member leaves or becomes otherwise permanently unavailable	Low [It is unlikely that any members of our group will leave the project group]	Medium [If this did happen, the remaining project work would be distributed between the rest of the group]	Ensure someone else is ready to take over whatever they were working on
R4	Project	A team members computer stops working and they're unable to replace it	Low [Everyone's computer seems pretty reliable or they have a backup machine, so it's not likely that they'll be left unable to access a computer]	High [If this were to occur, then this would have a strong impact if they had saved files locally and hadn't backed them up, as we'd need to do them all again]	Keep a backup of all project files - if a computer dies with unshared work then it's lost. Most of our project files will be saved in either Google Drive or GitHub to ensure everything's saved.
R5	Project / Technology	A tool becomes no longer available	Low [We're using	High [If tools did	Use industry standard tools and libraries to

			industry standard tools which are unlikely to go anywhere]	become unavailable, then this would have a high impact as it may mean that what we've made already isn't able to be used]	minimise risk of them disappearing
R6	Project	We get one of the requirements wrong and we need to change it	Medium [Although we've tried to get all the requirements down correctly, it's inevitable that we've misunderstood one somewhere along the line]	Medium [A change to the requirements shouldn't be too bad as we'll be able to correct it, but if it's a big change then it may delay the project somewhat]	Read the assessment sheet carefully and discuss requirements in detail at a team customer meeting
R7	Technology	One of our tools isn't supported on the client's pc	Low [As we're using industry standard tools, it's unlikely that the customer's computer won't be able to run it]	High [If the customer was unable to run the product, this would render the product unusable and have a huge impact on the project]	Use standard tools that will be compatible on all computers, have everything together in one JAR executable
R8	Customer	The customer may get ill or be otherwise unavailable, and may not be able to meet with us or answer questions quickly	High [The customer is a person too - they're just as likely to get ill as us, and at the moment, that's quite likely. They're also a person with their own life, so they might not be able to respond as quickly as we would like]	Medium [The customer being unavailable could delay the project if we can't clarify what we're doing. However, as long we don't leave everything last minute then this shouldn't have too big of an impact]	Try to get everything outlined clearly to begin with so we are able to get on with the project, even if we can't get in touch with the customer

References

[1] S. Jena, "Different types of risks in Software Project Development", GeeksforGeeks, 2020. [Online]. Available: https://www.geeksforgeeks.org/different-types-of-risks-in-software-project-development/. [Accessed: 12- Nov- 2020].