Risk Assessment:

Team 14

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5) a) As a team, risk management was one of the first conversations we had as we understood the importance of having a grasp on all possible setbacks that can occur during the planning and execution of a project. A risk in this context refers to a future event that may occur that can have a negative impact on the project and risk management is the process of monitoring, mitigating and identifying new risks.
There are four main types of risks that you will come across when developing a project, these are “Project”, “Product”, “Project and Product” and “Business”. A project risk refers to a risk that could potentially affect the project schedule or resources for example tool unavailability or a change in management. A product risk is a risk that affects the completeness of the product and its quality, an example of this would be flaky libraries or tool bugs. Project and product risks are risks that impact both of the previously mentioned areas, a risk that affects the schedule of the project and the completeness of the final product. Examples of this would be if the requirements were changed or there were specification delays. Finally a business risk is something that relates to the organisation that is developing the software for instance if a piece of technology is made obsolete or if there is an issue with another organisation that rivals yours.
When it comes to risk management the process can be broken down into four simple steps that if we follow as a group, we will not have any issues when dealing with potential risks and will be prepared for a multitude of scenarios that could come our way. These steps are “Risk Identification “, “Risk Analysis”, Risk Planning” and “Risk Monitoring”. Risk identification is the process of discovering all possible risks to the project. This could include team brainstorming, manager experience and literature review, as a team we have brainstormed for any possible risks to the project and believe we have compiled a very complete list of risks to the creation of the software. This process can also include the elimination of less significant risks that have an easy fix and minor consequences. The next step is risk analysis, in this step we assign each step a likelihood and severity. These are generally categorised as “Low/Moderate/High”. We have made a team judgement on each of these risks to place them in the appropriate category of likelihood and severity giving them the labels “L/M/H” referring to low, moderate and high along with an appropriate easy to follow colour scheme to allow for easy identification of the importance of each risk. Next we have the risk planning stage. During this stage we begin to develop: avoidance strategies, which are strategies with the goal of avoiding the occurrence of a risk in the first place; mitigation strategies which refers to preparation for and reduction in the risks faced by the organisation and finally contingency plans which are plans to fall back on if all else fails which ensures you are not clueless on how to proceed if you face an unexpected disaster. The final step is risk monitoring. This is the act of checking the status of and constantly reassessing the likelihood of all risks in the project. This is crucial as it is easy to miss a severe risk that has occurred if you are not checking for it. As a team we will be vigilant when it comes to regularly checking for risks and their likelihood and reporting on the status of each risk.
Something that can make the management of these risks a lot easier is a risk register. In our case this is a register that contains seven columns “ID”, ”Type”, ”Description”, ”Likelihood”, ”Severity“, “Mitigation” and “Owner”. I believe these cover all the information necessary about each risk in order to assess them and identify how to react to them. Most columns have been explained previously however to clarify “Mitigation” refers to how to reduce the risk of the problem occurring and “Owner” refers to who should take steps to mitigate the risk.

b)

ID	Type	Description	Likelihood	Severity	Mitigation	Owner(s)
R1	Project	GitHub outage, GitHub is temporarily inaccessible due the GitHub servers being down meaning we cannot access our project.	L	M	Always keep a copy of the latest version of the code you are supposed to be working on on your computer so you are able to continue work while GitHub is down for the time being.	Main coders (Harry and Johnathon)
R2	Project and Product	Malware uploaded to GitHub, GitHub does not scan for viruses so if files with a virus gets uploaded to the repository a virus could affect all other files in the repository.	L	H	Always perform code scanning or automated code analysis while downloading the repos from a public repository.	Main coders (Harry and Johnathon)
R3	Business	People who are not part of the group could gain access to the repository.	L	M	Make sure no one leaves their computer or laptop unattended so people cannot grant themselves access.	Everyone
R4	Project	People in the organisation could not all be available for meetings at the same time.	H	L	Organise meetings with a lot of advance notice. If it is impossible to have everyone in one meeting, hold meetings with as many people as possible and make sure to keep everyone informed. Next meeting should be with the members who could not attend to make sure they are kept in the loop.	Everyone
R5	Product	The risk assessment could not be a complete analysis of the risks of the project.	L	M	Have the team help to look over the risks that are being monitored and have everyone agree on the severity levels	Rayan

					and likelihoods.	
R6	Product	The requirements could not be an accurate or complete list of requirements for the given project brief.	L	H	Have everyone in the organisation make a list of requirements and discuss which requirements should be in the final list and which shouldn't. This should make sure that everyone agrees on the final list and is much more likely to be a complete analysis of the problem	Josh
R7	Project and Product	A member of the team could be affected by an unforeseen circumstance and be unable to complete the section that is assigned to them	L	M	Make sure that there is a constant open communication between all members of the team to make sure that other members are able to pick up the slack of members who are unable to meet the deadlines of tasks assigned to them.	Everyone
R8	Product	The material in the website could not be easily accessible by any user.	L	M	The website should be peer reviewed by a friend outside the group and they should be able to easily find every aspect of the website.	Harry and Callum
R9	Project	The work could not be divided equally between all members of the team	L	M	Ensure that all team members are consulted when the work is divided and there is a fair amount of work assigned to each member. We should only proceed with the project when everyone is happy with what they have	Everyone

					been assigned	
R10	Project	Unrealistic deadlines could be set which could create an unrealistic timeline for the project which in turn could result in deadlines not being met.	M	H	Make everyone look over the deadlines set for each task and agree with the time assigned to it. We should also have a flexible plan to finish a fair amount of time before the deadline to allow for any unexpected roadblocks so we can adapt the timeline if necessary.	Callum
R11	Product	Code could be misinterpreted during implementation which could lead to code being incorrectly explained.	M	M	Avoided by having the coders comment their code clearly and concisely. Also have coders look over implementation to make sure that nothing is not interpreted as intended.	Main Coders (Harry and Johnathon)