Project Risk Assessment and Management

Code Cracking: Who Murdered The Somerton Man

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This document includes the risk OH&S and Project Risk assessments and risk management strategies.

Risk Assessment

A detailed risk management analysis has been completed for the lifecycle of this project. Both

Occupational Health and Safety (OHS) and Project Risks were taken into account, and their potential

impact on the project was measured. As well as this, risk management strategies have been devised

to ensure their impact on the project is kept to a minimum.

For the purposes of brevity in the tables to follow risk occurrence and severity are categorised

below.

CATEGORY	DESCRIPTION
Almost certain	There is an expectation that an event/incident will occur.
Likely	There is an expectation that an event/incident could occur but not certain to occur.
Slight	This expectation lies somewhere in the midpoint between "could" and "improbable"
Unlikely	There is an expectation that an event/incident is doubtful or improbable to occur
Rare	there is no expectation that the event/incident will occur

Figure 1 Likelihood of Hazard Occurrence

CATEGORY	DESCRIPTION
Severe	Injury resulting in death, permanent incapacity
Major	Injury requiring extensive medical treatment, hospitalisation, or activities could result in a Notifiable occurrence.
Moderate	Injury requires formal medical treatment (hospital outpatient/doctors visit etc), activities could result in an Improvement Notice.
Minor	Injury requires first aid
Negligible	Injury requires minor first aid (e.g. bandaid), or result in short term discomfort (e.g. bruise, headache, muscular aches, etc)

Figure 2 Severity of Hazard

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Risks were assessed using the matrix provided in the Final Year Project documentation.

Likelihood	Consequences				
	Negligible	Minor	Moderate	Major	Severe
Almost Certain	Medium	High	Very High	Very High	Very High
Likely	Medium	Medium	High	Very High	Very High
Slight	Low	Medium	High	High	Very High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Medium	Medium

Figure 3 Hazard Assessment Matrix

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Occupational Health and Safety Risks

Occupational Health and Safety (OH&S) hazards are those that could potentially cause injury or ill health to any of the team members in the course of the project. By taking into account the likelihoods and severities of of such hazards occuring we can assess the risks and take measures to control them.

This project will take place mostly within the provided undergraduate facilities within the University of Adelaide such as the computer labs so much of the risk management has be completed by the university prior to this project. We need simply to abide by the *University's OH&S Rules* as these will adequtely minimise the risks of physical hazards. As such, the analysis included will be brief and cover only the major catagories.

	Hazard	Likelihood	Severity	Risk Estimate
Physical Hazard	Electric Shock	Rare	Moderate	Low
	Physical Injury	Rare	Minor	Low
Biological Hazard	None			
Radioactive Hazard	None			
Chemical Hazard	None			
Ergonomic Hazard	Repetition	Almost Certain	Negligible	Medium
Psychological Hazard	Work Related Stress	Slight	Minor	Medium

Physical Risks (Low)

As previously mentioned, the University's OH&S policy already in place should be sufficient to minimise the physical risks.

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Repetition (Medium)

The ergonomic risk listed above has a high management priority as it comes in as a medium risk. As this risk cannot be eliminated, some administrative procedures will be taken into account. The [University of Adelaide Workstation Ergonomics guidelines](#)[1] give good proceduraul information on how to arrange our workstations and will be taken into account to minimize ergonomic risks.

Work Related Stress (Medium)

Psycological risks, most commonly stress related to workloads, are difficult to manage as they cannot be eliminated. This is not a physical injury and as such is difficult to gauge. The management of this risk will consist of monitoring the team members throughout the project. If this risk becomes a problem other management methods will be considered.

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1 http://www.adelaide.edu.au/hr/ohs/hazmanagmt/workstation.html

Project Risks

Project risks are those which could cause delay of deliverables or cause deadlines to be missed. As such effort must be taken to make sure these risks are assessed and plans devised to manage them. An assessment of project risks has been made in the table below, with a more detailed analysis following.

Hazard	Likelihood	Severity	Risk Estimate
Under/ Overestimated Time Allocation of a Task	Almost Certain	Major	Very High
Limited Availability of Group Members	Likely	Moderate	High
Conflicting Uni Schedules	Likely	Moderate	High
Case Is Solved	Rare	Major	Medium
Inability To Locate Software	Slight	Moderate	High

Underestimated / Overestimated Time Allocation of a Task (Very High)

This project involves many different aspects including programming, 3d modelling and research. It is likely that some of these tasks may entail fine details that are not apparent on the surface.These make initial scheduling and timetable management difficult. This risk cannot be removed. Accounting for this possibility in our scheduling will significantly mitigate this risk. Additional time (slack) will be given to add a buffer and we will consult with our supervisors on how long previous year's groups took on similar tasks. Continual management and assessment of our current progress with our schedule will also help mitigate this risk.

It is also worth mentioning that this goes the other way too. Should we complete a task much faster than expected, there is the potential to add in additional tasks. Our project timetable has several tasks that are currently inactive, as doing them would fall outside of the time allocated for the project. Should we find extra time these could be incorperated as we go.

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Limited Availability of Group Members / Conflicting Uni Schedules (Very High)

This project will require large amounts of meeting time between team members. Falling behind schedule because of a lack of team meeting time is a real concern. Certain periods, such as that around exam time, will likely be very difficult in this respect. At a basic level this hazard to the project can be very significantly alleviated by advanced scheduling. We are aware of many of these busy periods beforehand (like exams) and have ensured a decent amount of float in the schedule around that period. It is also possible for us to schedule meetings in times when we are both free, and collaborate with ourseles and our supervisors by electronic means. This will be very closely monitored and the effectiveness of this risk management strategy should be apparent very soon into the project.

The Case is Solved (Medium)

It is worth mentioning that one thing that could cause a problem in the efficacy of our deliverables is if the code were solved externally. While incredibly rare, this risk cannot be eliminated as it is completely out of our control. It is possible mitigate the damage to the project if this were to occur by assesing the various tasks and deliverables for their value if this did happen. In the unlikely event that this did happen the tasks with valuable deliverables would still be persued.

Inability to Locate Usable Software (High)

One segment of this project is a 3D modelling task. This will require a 3D modelling program, which will need to be located. There are many free programs that could handle this, however they do not all have the same functions. This could lead to delays to the project if a software swap was needed mid way through this task. A mitigation strategy for this risk is to reserve the project budget (or part of) for the possibility of buying a professional 3D modelling program should additional functionality be required.

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