Risk assessment and mitigation

a) Introduce and justify your risk format and level of detail

We have developed a risk assessment table to outline the different risks and extreme circumstances that may occur throughout the development of our project. Our table categorises the risks based on how they may affect our ability to complete the assessment. These are:

- Project - factors that will affect the timeline and ability to complete the project
- Product - factors that will affect the quality of our product
- Business - factors that will affect development of the product, such as obsolete technology or competition from other teams
- Requirement changes - effects from changes to the product brief during development

These factors allow us to consider various areas of the project which could go wrong and how any impacts could be mitigated. For each possible risk, we have considered the likelihood and severity of that risk occurring and then discussed how it can be mitigated. It is important to note that not every risk can be mitigated and that our table is not an exhaustive list. It is quite likely that things may happen during the project that we have not considered.

We have categorised the severity and likelihood of a risk occurring on the following scale:

- Low (L)   (least likely to occur)
- Medium (M)
- High (H)
- Very High (VH)   (most likely to occur)

This categorisation allows us to focus on and prepare for the most significant risks. For each risk we have discussed mitigations to ensure that if a risk does occur, its impacts are minimised. We have also given each risk an owner - this means that each risk owner should periodically review the risk during the project and ensure that it is still being managed effectively. Furthermore, if a specific risk does occur, then the owner of that risk is responsible for leading the response to mitigation of that risk. We have tried to distribute risk owners fairly, ensuring all team members are helping to manage potential issues during the project.

As this project is a relatively small project and non-critical, all our risks relate to the deliverability of the project and ability to complete the assessment objectives. Our project is very unlikely to cause any physical or mental harm. We believe that these sorts of risks are very low, so it did not seem sensible to include these types of risks in our table.

b) Risk assessment table

ID	Type	Description	Likelihood	Severity	Mitigation	Owner
1	Project	Someone becomes unavailable	H	H	Reduce the bus factor, make sure that more than one person knows how each part of the system works	James
2	Project	Tool unavailability - working from home technical issues	M	H	Use labs if in York, ensure the plan is flexible, maybe delegate to someone else for a temporary period. Make sure all code is backed up to Github.	Charlie
3	Product	Flaky Libraries - libGDX not working as intended	L	VH	Find a workaround and report bugs to library developers. Only use different library as last resort	Marc
4	Product	Tool bugs - problems with Github	L	M	Make sure we all have a local copy, make sure we commit changes	Rob
5	Requirement change	Stakeholder changes requirements during	H	H	Keep stakeholders involved in process to reduce likelihood	Alice

		development			of changed being required	
6	Project	Stakeholder becomes unavailable	L	H	Have other contacts available, no single point of contact	Dan
7	Product	Stakeholder does not enjoy product	L	H	Keep stakeholder involved in process, ask for reviews	Alice
8	Business	Competition - our product is not selected to be continued for assessment two	M	L	Make our game as great as possible	Marc
9	Business	Obsolete technology - libGDX is discontinued	L	H	Have local versions downloaded	James
10	Project	Poor scheduling - we are late on the project	M	H	Check progress every week	Charlie
11	Project	We cannot figure how to make art	H	H	Look into using free clipart	Rob
12	Product	End users do not find the user interface intuitive or find it hard to use	M	H	Use a thorough design process and involve stakeholders to gain feedback	Dan
13	Project	Requirements not met	H	H	Make sure we fully understand the requirements and check our requirements table weekly	Charlie

| 14 | Product | The game does not run smoothly on university computers | L | H | Continuous testing throughout the project | Dan |
| 15 | Product | The difficulty level of the game is poor - too hard or too easy | M | M | Continuous testing of the game | James |