Risk Assessment and Mitigation

Some changes have been made to the risk table from Assessment 1 which can be viewed online at: https://github.com/teal-duck/teal-duck/blob/Assessment-1/teal.zip?raw=true. The same layout has been kept as it provides an easy way to see the different risks and there categories. The risks in Table 2 are in the same order as in Assessment 1 but now have risk labels where an **R** is followed by a number. This will make it easier to reference the risk in future assessments. The severity column has been colour coded to match the risk matrix as well. Any textual changes in the Table 2 can be seen in blue writing. The changes are to reflect the problems which may occur during Assessment 2 as well as add some more information that was missing from the Assessment risk table. R9 which was previously called Flaky libraries has a name change to reflect the risk better. No new risks were added or removed from Assessment 1 since they are still relevant and cover the foreseeable risks.

			Consequence				
			1	2	3	4	5
			Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood	5	Certain	M	H	H	E	E
	4	Likely	M	M	H	H	E
	3	Possible	L	M	M	H	E
	2	Unlikely	L	M	M	H	H
	1	Rare	L	L	M	M	H

Table 1: Risk Matrix

Risk Description	Avoidance/Mitigation	Type	L	C	S
R1 People become unavailable e.g. illness (Flu is less likely than in first term), interviews (people still looking for placements), Christmas break and revising for exams.	Exams will be the priority of most people during this period so there will be a lot less progress during the Christmas break. As much work should be done before the break as possible to complete Assessment 2. Using Slack to communicate when physically meeting not possible. Have minimum two people who work or understand what to do on each part. Make sure work/tools are accessible by everyone e.g. put work into shared google drive area. So that work can be picked up by someone else when needed. Distribute workload between team members through a team meeting if team member quits/is severely ill.	Project	5	4	E

R2 Disagreements on ideas/roles	The team should have gotten to know each other better so disagreements should be minimised. SCRUM methodology allows a SCRUM master to lead a discussion so a team member will play this role and the lead discussion making sure everyone gets a say. Use outside mediator(lecturers) if team cannot function at all.	Project	3	4	H
R3 Delays in reaching milestones/deadlines	Create a Gantt chart so everyone can see when work needs to be done by. Make sure everyone has something to do at all times by having SCRUM meetings.	Project	3	5	E
R4 Losing documents	Back up all work through google drive and locally regularly in case either fails. Having documents on google drive go missing is highly unlikely as it is widely used application supported by a large corporation. If all documents were lost it would to lead to failure of the project especially if there is not enough time to redo parts.	Business	1	5	H
R5 Tool unavailability	Google docs could crash or is not accessible as it is a cloud application and the network could fail so work needs to be backed up locally regularly. Make sure everyone has access to all tools used i.e. use freeware, open source	Business	1	4	M
R6 Obsolete technology	Support of technology could stop being supported so may become incompatible with the chosen platform and not work. So use popular/well known technologies instead.	Business	1	4	M
R7 Another team develops a similar game	Try to find out what other teams are doing if possible although this maybe hard since other teams may not want their idea to be copied. This will affect the uniqueness of the product when pitching to other teams.	Business	4	2	M
R8 Not identifying all requirements or change	Discuss requirements with client early at each stage of development otherwise it will not meet the specification.	Project/ Product	3	5	E

R9 Libraries become unsupported.	The team has chosen to use LibGdx which is a very popular library so is less likely to become unsupported. The games will rely only on the the core features of LibGdx rather than things such as Box2D where the physics engine will be written by the team instead.	Product	1	4	M
R10 Implementing game design takes too long/complicated.	Review the design and make sure core mandatory requirement are implemented first. Optional requirements can be built on top if time permits. Identify the experience team members have on creating the different parts of the game - programming, art, etc. so time can be reduced if the most skilled people implements a particular part.	Project/ Product	3	4	H
R11 Inexperience of team members	People will have different skill sets and have unfamiliarity with tools. So distributing work with what people know/comfortable doing. If no-one knows how to use a certain tool that is necessary to the process make sure there's allocated time to become familiar to the tool. This time allowance can be added to the task at hand on the gantt chart.	Project	4	3	H

Table 2: Risk Table