Risk Analysis

**Risk Categories**

Potential risks are split into three of different categories depending on where they fall. The categories are as follows: people, operational, technical. Risks in the people category are those which are directly associated with team members. Operational risks are those which are derived from tasks and activities that the team plans to carry out. Technical risks covers all those associated with hardware/software that will be used throughout the project. If a risk occurs that is organisational this means that the risk lies with the governing body of the team (ie course coordinator)

**Risk Responses**

Response to a potential risk is a large part of having a complete risk analysis plan. We have selected four of potential response categories and each risk comes with a more detailed response within this category. Including risk responses in risk analysis provides us with a rough contingency plan as it assumes the worst will happen and provides as an alternative to complete the project. The four response categories are acceptance, reduction, transfer and contingency. Risk acceptance is accepting the risk after it has occurred and not taking any precautionary measures to directly reduce the risk from occurring. The impact and possible consequences of this risk occurring will be accepted by the team. To reduce a risk the team must implement measure that will prevent risks from occurring or minimise the number of risks that will take place. Risk transfer is the means of transferring the potential risk to another party to avoid the team being held liable for risks out with their control. Creating a contingency plan is essential for planning in the event a risk happens, this doesn’t reduce the probability of a risk occurring but will help with the impact.

Within the risk analysis, each risk has been assigned an owner. This means that the assigned team member is responsible to ensure the planned risk response is carried out/set in place if a risk occurs.

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| **Risk Number** | **Risk Event** | **Probability** | **Impact** | **Overall Risk** | **Risk Category** | **Risk Response** | **Risk Owner** |
| rk1 | Group member drops out | 4 | 7 | Medium | People | Acceptance- accept loss of team member, regroup and reassign group roles | All |
| rk2 | Group fails to meet deadlines | 2 | 9 | Medium | People/Operational | Reduction – Group will ensure that reasonable sub-deadlines are set for each task and that all group members understand what they must complete and ensure they are on track. Progress of completion of tasks will be documented on GitHub | All |
| rk3 | Group lacks expertise to complete project | 2 | 9 | High | People | Reduction – Group will thoroughly read the project specification and come to an understanding of what must be completed. Team members areas of expertise will be discussed to ensure that each aspect of the project can be completed to a high standard. | All |
| rk4 | Group communication failure | 3 | 7 | Low | People | Reduction – Group will have weekly group meetings which all group members are required to attend. If a group member is absent without a reason, LM will follow this up. | All (As OM, LM is responsible for group communicating) |
| rk5 | Manager of group changes | 1 | 1 | Low | Organisational | Transfer- The team cannot be held liable for this. Responsibility lies with course coordinator | LM/Course Coordinator |
| rk6 | Manager becomes unavailable to group | 1 | 5 | Low | People/Organisational | Transfer - The team cannot be held liable for this. Responsibility lies with course coordinator. LM will contact the course coordinator if manager is unavailable without prior notice. | LM/ Course Coordinator |
| rk7 | Group illness | 4 | 3 | Very Low | People | Acceptance – Group will still meet and accept loss of one member. Meeting minutes will be posted so missing team member can follow the meeting agenda. | All |
| rk8 | Manager illness | 4 | 3 | Very Low | People | Acceptance – Group will either decide to continue with planned meeting without manager or rearrange another date with manager. | All |
| rk9 | Requirements change – Early in project | 7 | 4 | Medium | Technical | Reduction – As there is a high chance of this risk occurring, group will ensure that requirements can be flexible to cope with the potential addition of new requirements. | All |
| rk10 | Requirements change- Late in project | 4 | 8 | High | Technical | Contingency – Group will have regular meetings, both with and without the client to ensure that requirements are being met and to ensure that the client is happy with how the system is to date. | All |
| rk11 | Group loses work permanently | 2 | 10 | High | People/Technical | Contingency/Reduction – Group will save completed work on GitHub, personal devices and university servers to cover all bases in case of an accidental loss. | All |
| rk12 | Software used becomes outdates (new versions released) | 2 | 6 | Low | Technical | Reduction – Group will research and ensure that the software being used is still relevant. As project is relatively short timescale this issue should not arise. | SL, LM, CS, KC, KM |
| rk13 | GitHub becomes unavailable | 2 | 8 | Medium | Technical | Contingency/Reduction – Group will have extra copies of work to ensure that all work is not lost. Another web-based hosting service can be used if risk occurs. | All |