## Risk Management

For this project, the risks were identified during a risk assessment meeting between the technical coordinators, the business analyst the project manager and the clients. The project manager with the help of the business analyst and the technical coordinators added the identified risks from the meeting to a Risk Register. The technical coordinators and business analyst also reviewed the history of similar projects in order to determine the most common risks and strategies used to mitigate those risks. For each risk a probability and impact factor were assigned in order to determine the severity of the risks identified.

Risk monitoring will be a continuous process throughout the life of this project. Each risk is assigned to a Risk Manager. The risk manager can be a technical coordinator a business analyst or the project manager himself and will monitor the assigned risk. The project manager will ensure that the appropriate risk manager provides necessary status updates which include risk status, identification trigger conditions and the documentation of the results of the risk response. The risks that fall in the current time period will be communicated to the team in the weekly team meetings. The most likely and greatest impact risks will be added to the project plan to ensure that they are monitored during the time the project is exposed to each risk.

The project manager will lead the team in developing responses to each identified risk. The risk response should be compliant with the time, scope and cost constraints. In extreme cases it may be necessary to allow flexibility of the project’s constraints. If necessary, the time constraint can be increased in order to meet the scope constraints. This will have an impact on the cost constraint as well and should be applied in extreme cases where no other risk avoidance or mitigation strategy helps.

The risks will fall in on of the following categories:

**Technical risks**

**1. Lack of experience in relevant technologies**

**Description:** Not all developers have the same level of know-how with the technologies to be used in the project.

**Impact: High**

**Probability: Medium**

**Prevention:** The work will be assigned mainly by experience with relevant technologies. But team members are always encouraged to learn new technologies and can try to implement tasks that they are less familiar with. This will help increase the team’s know-how. The technical coordinators as the most experienced developers or any team member that has know-how will guide other team members and will help them in finding solutions on different problems they are facing.

**Correction:** If a team member is unable to meet deadlines due to lack of experience or know-how, the more experienced team members should schedule peer programming sessions or take over some of the more critical issues.

**2. Usage of new technology/library**

**Description:** There is a possibility that the team might pick a new technology or library to solve a specific problem.

**Impact:** Medium

**Probability:** Medium

**Prevention:** The team should try and solve the problem first by using a known technology or library.

**Correction:** If the current technology stack doesn’t provide a solution, the technical coordinators will seek help on the internal corporate website form other teams that might had the same problem or are familiar with the technology or library. They will consult with other company employees or teams and share the know-how with the project team.

**3. Inappropriate version of tools and components**

**Description:** Team members might not install the appropriate version of the tools and components used throughout the project.

**Impact: Low**

**Probability: Low**

**Prevention:** The technical coordinators will select specific version of tools and components and will make them available on the projects page on the company’s web site. Every team member should adhere to the choice through out the project. If a version changes the technical coordinators will update the projects page and will inform all team member about the change.

**Correction:** If a team member is using inappropriate version, he/she should install the correct one and fix any issue that might arise.

**Software design risks**

**4. Errors in the software design**

**Description:** Team members might not install the appropriate version of the tools and components used throughout the project.

**Impact: High**

**Probability: Low**

**Prevention:** The design documents will be reviewed and approved by the project sponsor.

**Correction:** In case an error occurs, the design needs to be revised and corrected by the project sponsor and only then the implementation can be fixed.

**Common risks**

**5. Unavailability of resources**

**Description:** During the project lifecycle, team members will be unavailable due to sick leave, emergencies, might request a project change or leave the company.

**Impact: Medium**

**Probability: High**

**Prevention:** Team members should inform the project manager as soon as possible of the absence. If the project manager is absent a technical coordinator should be contacted instead. The team member should ask another team member to be his/her deputy.

**Correction:** If a team member is leaving the project or will be absent for a very long period, the project manager should ask the board of managers responsible for the company’s resource planning to find an appropriate team member.

**6. Unavailability of client resources**

**Description:** The client has other internal responsibilities and might not always be available to the team.

**Impact: Low**

**Probability: Medium**

**Prevention:** The team should have regular meetings with the client and should be notified of the client’s unavailability in the next period.

**Correction:** If the client is unavailable to a degree that affects the project from moving forward, he or she should assign a deputy that will be available to the team.

**7. Changes in requirements**

**Description:** Changes in requirements might be common but will have an impact on the project scope and timelines.

**Impact: High**

**Probability: High**

**Prevention:** The change requests should follow the process specified in the SPMP (this document).

**Correction:** The client will be made aware, in advance, of the amount of change that can be accommodated in term of the project and how it will affect the project timelines. This should often be followed by moving the deliverable dates.

**8. Failure to meet deadlines for a deliverable**

**Description:** There is a possibility to encounter a situation, that can affect the team from delivering a work package on time.

**Impact: High**

**Probability: Medium**

**Prevention:** If team members experience any bigger problem that the manager and technical coordinators failed to predict but may affect the deadline of a deliverable, they should inform the project manager as soon as possible. This should be followed by a team discussion and a brain storming session on how to resolve the problem and continue forward.

**Correction:** Multiple failures to meet deadlines will trigger a discussion between the project manager, technical coordinators and the stakeholder. The project schedule should be reviewed for any missing points that might cause another failure to meet a deadline.

**9. Accidental loss of valuable information**

**Description:** There is a possibility to encounter a situation where an important document is missing due to storage failure.

**Impact: High**

**Probability: Low**

**Prevention:** Every important decision for the project should be stored on the company’s server. All documents should be sent by email to every affected party and a mail store should be used to minimize the chances of loss of information.

**Correction:** The project stakeholder and project manager should be able to recreate the document. The project stakeholder should store a backup copy of any important document on an internal server.