**Risk Mitigation Plan**

**Exam Maker Application**

Version 1.0

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# Introduction

The Exam Maker is a Java based application that will allow its user to create exams from a set of questions in XML format. The Exam Maker is primarily for professors, however the application can be used by the general audience to make the task of creating exam simpler.

The Exam Maker Application is a team based project that involves a human effort, a limited amount of resources and a schedule.

Ideally, the project time and effort estimations establish a project plan that will ensure that the development is completed within the set time frame. However, since the initial development plan is just an estimation, a risk factor is involved in each single task along the development process.

The purpose of a risk management plan is to ensure that any possible development related risks will be appropriately handled using a risk mitigation plan.

Risk planning is extremely important as it will provide a plan of action in case the development deviates from its original set plan. In addition, risk planning will prevent last minute decisions which usually have serious impact on the project as they involve the least amount of thinking and consideration due to the time constraints.

In order to make the risk management process effective, a well defined development plan should be established. The latter takes into account the effort, resources and the amount of time involved. For each development task, a risk identification study must be conducted in order to set a risk mitigation plan. Once a mitigation plan is established, it should be checked to ensure that it will handle the risk efficiently and in a timely manner.

This section introduces the project, explains why risks exist and highlights the purpose and importance of the risk management plan. It provides a general description of why risk management is essential to effectively managing a project and describes what is needed before risk management can begin.

# Risk Identification

The process by which the risks associated with the project were indentified is based on : reviews of historical information from similar projects and conducting a risk assessment meeting with the project team and key shareholders.

Each team member’s experience from previous projects is a valuable asset that will contribute to the project risk planning effort. This expertise combined with the risk assessment meetings will provide a clear insight into the risks involved from both the shareholders’ and the development team’s perspectives.

The indentified risks will be recorded in a table (spread sheet), the first column of the table will list the risks, then the following columns will list the category, probability of occurrence and the assessed impacts respectively. The risks will be evaluated on a monthly basis to update their status and their impact on the project.

This section explains the process by which the risks associated with this project were identified. It should describe the method(s) for how the project team identified risks, the format in which risks are recorded, and the forum in which this process was conducted. Typical methods of identifying risks are expert interview, review historical information from similar projects and conducting a risk assessment meeting with the project team and key stakeholders.

# Risk Monitoring

The risk monitoring activity will rely on the collected data from the risk identification and assessment activities. The indentified risks will have a specific score that projects their impact on the project, this will allow the risks to be prioritised and hence focus on the risks with the highest impact.

A plan of action is established for each risk, each plan is subject to change especially if the impact of the risk diminishes as the development progresses. The project manager should monitor the risks closely and update the risk table data on a regular basis, this will ensure that the risk mitigation strategy is current and effective.

This section should discuss how the risks in the project will be actively monitored. One effective way to monitor project risks is to add those risks with the highest scores to the project schedule with an assigned risk manager. This allows the project manager to see when these risks need to be monitored more closely and when to expect the risk manager to provide status updates at the bi-weekly project team meetings. The key to risk monitoring is to ensure that it is continuous throughout the life of the project and includes the identification of trigger conditions for each risk and thorough documentation of the process.

# Risk Mitigation

Each identified risk will have its own risk score that will reflect its impact, as well as a specific category that will reflect the type of the risk. The mitigation plan will vary for each risk, and extra measure may be taken depending of the impact and the priority.

The manager’s experience and expertise will govern the success of the mitigation plan. Managing the available resource using an effective plan will make a big difference. The manager must have a very good idea about their available resource including : equipment, technology, budget, staff and time, this clear idea will yield an efficient plan that will address each risk. Basing the plan of action on inaccurate data and false estimates will have serious consequence on the project including : extra cost, overtime, pressure and frustration, failing to meet the deadline. This is where the manger’s experience and knowledge plays a determining factor. An experienced managers will consider the best options from the ones available, options include :

* Training.
* Weekly meeting to monitor progress.
* Enhanced communication especially if the team is not located in the same location.
* Reliable data monitoring procedures.
* Consider outside expertise for various tasks on the project.
* Consider COTS software. (In our Project, these would be Libraries)
* Reuse in-house developed software.
* Projects archive (improve process based on previous project).
* Effective Risk tracking tools and procedures.

Once risks have been qualified, the team must determine how to address those risks which have the greatest potential probability and impact on the project. This section explains the considerations which must be made and the options available to the project manager in managing these risks.