Integrated Campus

RISK MANAGEMENT PLAN

Group 2
INTEGRATED CAMPUS | SEN-Winter 2013

Revision History:

Version	Primary Author(s)	Description of Version	Reviewed By	Date Completed
v_0.1	Pinky.J.Meena, Ishita Agarwal	This is brief version of Risk Mangement	Nalin Patidar	7th April 2013

Content

1. Introduction:

Risk analysis and management are a series of steps that help a software team to understand and manage uncertainty. Many problems can plague of software project. A risk is a potential problem, unfavorable event or circumstance that can occur during the project life cycle .If risk becomes true, it can hamper successful and timely completion of project But regardless of the outcome, it's a really good idea to identify it, assess its probability of occurrence, estimate its impact, and establish a contingency plan should the problem actually occur.

1.1 Purpose:

The purpose of this Risk Management Plan (RMP) is to describe the methodology for Identifying, tracking, mitigating, and ultimately retiring Integrated Campus Project risks. This document defines the risk management roles and responsibilities of the project Team. Risk management in software projects has different uses. It helps to save projects from failing due to different factors such as non completion of projects within the specified schedule, and not meeting customer expectations. Risk management looks at projects from different perspectives to ensure that the threats to the projects are identified, and analyzed, and appropriate strategies are undertaken to mitigate, and control risks. In fact, risk-managed projects have the ability to reduce project costs, and time of completion, and increase the overall quality of the project deliverables.

1.2 Scope:

The scope of this document pertains to the Integrated Campus and its internal and external risks. The risk management methodology identified in this document will be primarily used by Integrated Campus and is to be used during the entire Project. Risk management starts at the very beginning of the project with initial planning and assessing. Risks identified early should be addressed immediately. Risks and potential risk areas are monitored and managed throughout the remainder of the project. Scope of the Risk Management Plan (RMP) is not limited to those risks identified early. Rather, all areas should be monitored throughout.

2. Risk management:

Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. It addresses methodically all the risks surrounding the project activities, past, present and in particular future. It increases the probability of success, and reduces both the probability of failure and the uncertainty of achieving the overall objectives.

2.1 Risk identification:

Risk Identification is a systematic attempt to specify threats to the project.

2.2 Risk assessment:

Assess the impact of risk if it occurs on the project. Quantitative risk assessment requires calculations of two components of risk .The magnitude of the potential impact and the probability p that the risk will occur.

2.3 Risk containment:

It involves mitigation plan and contingency plan. The mitigation plan is a risk avoidance plan, while the contingency plan is put into place when risk actually occurs.

3. Types of risk:

Risks are categorized in following manner:

Product Size: Risks associated with the overall size of the software to be built or modified. This type of risk occurs when either we have wrongly estimated the size of the project to be too low.

Business Impact: Risks associated with constraints imposed by management or the marketplace. This type of risk   occurs when either the quality of product document/coding is low or if there is unavailability of team. The category also includes risks related to any conflict between team members and of setting of unrealistic deadline of deliverables.

Customer Characteristics: Risks associated with the sophistication of the customer and the developer's ability to communicate with the customer in a timely manner.

Process Risks: This type of risks occurs due to lack of experience in Project Planning and firsthand experience of big projects.

Development Environment: This type of risk occurs due to lack of training in coding language and tools to be used.

Technology Risks: Risks associated with the complexity of the system to be built and the newness of the   technology that is packaged by the system.

Staff Size and Experience: This type of risks occurs due to staffs that are inexperienced with the Software Development Process.

Performance Risks: This type of risks occurs when the software is not able to meet its requirements and could not do what it was intended to do.

Cost Risks: This risk adheres to the fact that cost of building project might increase than estimated.

Support Risks: This risk adheres to questions whether the software will be easy to correct, adapt and enhance.

Schedule Risks: This risk adheres to problems related to delivery of software in time and coping with schedule with every phase passing.

4. Risk Analysis Table

RISK	CATEGORY	PROBABILITY	IMAPCT
Size estimate may be low	PS	High	High
Unavailability of team members	BU	Medium	High
Conflict among team members	ST	Medium	High
Lack of technical skills to start the project	ST	Medium	High
Irregular reviews and maintenance of documents and log messages	PR	Medium	High
Lack of experience in Project Planning	PR	Medium	High
Staff experienced with the software Development Process	ST	Low	Medium
Customer changes requirements	PS	Low	High
Unrealistic deadline of deliverables	BU	Low	Medium
Unavailability of System/Tools	TE	Low	Medium

Category Legends:

- PS- Product Size Risk
- BU- Business Use Risk
- PR- Process Risk
- ST- Staff Size and Experience Risk
- TE- Technology Risks
- SR- Support Risks

5. Risk Management

5.1 Size estimate may be low.

The size of the project and the time required for its completion may be estimated wrongly. A thorough research on user requirements and emphasis on core requirements will dictate direction to the project. What the customer expects might be a lot more complex that what the deliverable are with the present set of knowledge we possess and the time span given.

Mitigation: We can mitigate the problem by collecting relevant information from. We decided that we can solve the problem by interacting properly with the client and conducting surveys both with faculty and students to gather proper requirements.
Monitoring: Following steps need to be taken:

- Reviewing SRS document and making it bench mark for further reference.

- Addressing to the final aim and scope of project before start of any phase Management: Risk management takes into account when the risk has occurred. When this happens, the team is required to take these actions:
  - Reviewing SRS document and making it bench mark for further reference.

  - Addressing to the final aim and scope of project before start of any phase

- Make small changes in the Software Design.

5.2 Unavailability of team members:

The team members may be unavailable due to unavoidable circumstances at home or personal. Hence dividing the work among subgroups in advance is a problem.

Mitigation: As the team members are well acquainted with each other, this problem shall be tackled in an informal ways by mutual understanding between group members. Also, people were assigned tasks in accordance to their availability.

Monitoring: Meeting will be scheduled for late evenings and it will be made sure that everyone attends them.

Management: Risk management takes into account when the risk has occurred. When a team members are unavailable for meetings without good reason or does not keep up to the deadlines, the Project Leader is required to take the following actions:
- Contact the specific team member, who can't make it to the meeting, by phone or e- mail, and ask for a good reason why he/she can't attend.
- Discuss the problem with the Teaching assistant or Professor, after giving the team member 2 more chances.

5.3 Conflict among team members:

This problem could arise due to misunderstandings, misinterpretation, and swollen egos and hurt sentiments in a team. This may also arise due to inefficient or no work of a member within a subgroup or because of ideological differences from other team members.

Mitigation: No one is completely responsible for anything; it's always the team. Aim at team building.
Use distributed work scheme and form subgroups for small work, the team members will be given a chance to form a subgroup with mutual consent, this shall mitigate the effect of conflict between individuals on the group.

Monitoring:

- Refer to Project Plan and have clear understanding of goals.
- Try to review the process with problem in mind, not the person.
- Work distributed uniformly to help the team flourish.

Management:

- Discuss any doubts or misunderstandings with the entire team.
- Talk to TA/Professor to deal with problems of handling a group.
- Team responsible and so individual responsibility is never singled out.

5.4 Lack of technical skills to start the project:

Since the project works on a completely new platform, mostly not introduced to the team as a whole, there is a great chance of the team lacking technical skills that are needed to start on with the project.

Mitigation: In mitigating the lack of training on these tools/languages, the team will be trained well in advance of the implementation phase. The team members who are well acquainted with the tools/languages needed for the project will conduct workshops to the others to come in tune with their skills sets. Training sessions and assignments will be given to the team members and the progress will be monitored by the project manager. The coders will be paired well in advanced so that they develop complementary skills enabling speedy and effective software development.

Monitoring:

Design and plan every phase before going for it.

Management: Risk management takes into account when the risk has occurred. When this happens, the team is required to take these actions: Progress in the training sessions will be monitored by the Project manager and
Alternative measures will be taken, like making training sessions more rigorous and concentrating on core areas. Acquire help from relevant sources like books, internet, TA and seniors.

5.5 Irregular reviews and maintenance of documents and log messages.

Reviews and maintenance of log messages is the heart of Software Engineering process. They give us insight into our mistakes and benefit us as we learn lessons from our previous Mistakes

Mitigation:

- Fix prior dates for review of each document

Monitoring:

- Whether a document is regularly updated
- Take out few minutes for each document in regular group meetings.

Management: Risk management takes into account when the risk has occurred. When this happens, the Project Leader is required to take the following actions:

- Re-do the Project Plan to make sure that a review is always conducted after a document is finished
- Arrange review meetings immediately if it's found that there are any documents that haven't been reviewed at all after it is completed.

5.6 Lack of experience in Project Planning:

We are following Software Engineering Steps for the first time and there might be slippages. But the lack of Project Planning can be foreseen early. When most of the group members are not able to meet deadlines then this means that our project planning has gone wrong somewhere.

Mitigation:

- Meet the TA regularly and discuss the project's developments
- Utilize the excessive lab time to keep the team updated with advances in all thE Departments.
- Design and plan every phase before going for it

Monitoring:

- Strictly adhere to the deadlines.
- Have a close look on the milestones and re-evaluate the time and effort constraints for the rest of the project.

Management:

Risk management takes into account when the risk has occurred. When this happens, The team is required to take these actions:

- Discuss the problem with the Teaching assistant or Professor.

- Make new Project Plan for next phase and onwards.

5.7 Costumer changes requirements

From the start of the project it was very clear that communicating with customer will be one-two time affair. The requirements phase will get a clear and complete picture of the product to the team and the requirements will not be changed in a major way after the start of design phase.

5.8 Unrealistic deadline of deliverables

The Project Plan includes a set of deadlines established in the initial stages of the project. While every effort should be made to ensure that we conform to these deadlines, we acknowledge that, during the course of the Project, the Project Plan may have to be modified to account for any unforeseen delays. As such, it is necessary to define procedures for handling these changes

Mitigation: In mitigating the slippage that may occur:

- The team must have a regular review of the Project Plan; this can probably be done in the team's regular meeting.
- The Project Leader must discuss the Project Plan with the TA or professor, to ensure that all the deadlines are set realistically.

Monitoring: In monitoring the activities of the project, the deadlines of the deliverables shall not exceed to more than 7 days.

Management: Risk management takes into account when the risk has occurred. When this happens, the team is required to take these actions:

- All the deadlines set in the Project Plan are met.
- Modify the project schedule to account for any unforeseen delays.
- Identify the root cause of the delay and ensure that any problems are adequately dealt with.
- Increase the amount of available resources.
- The reallocation of available resources by streamlining other non-essential processes.
- If possible, the next phase of the project should be conducted parallel with the slipped phase.

5.9 Unavailability of System/Tools:

The project team deals with the tools which are easily available and almost all the team members have the tools needed.

Mitigation:

- Use only free software.

Management :
- Try to find other alternative free soft wares.
- Buy software's in affordable range.