

GOVERNMENT POLYTECHNIC PUNE

Name : Snehal Ganesh Dahake

En no : 1907011

Batch : A

Software Engineering

IT4101

PRACTICAL 7

Aim :-

Identify risks involved in the project and prepare RMMM (RMMM-Risk Management, Mitigation and monitoring) plan.

Theory :-

Risk Analysis :-

Risk analysis in software testing is an approach to software testing where software risk is analyzed and measured. Software risk is measured during testing by using code analysers that can assess the code for both risks within the code itself and between units that must interact inside the application.

Risk Analysis include following tasks :-

1. Identify risks and their triggers
2. Classify and prioritize all risks
3. Craft a plan that links each risk to a mitigation
4. Monitor for risk triggers during the project
5. Implement the mitigating action if any risk materializes
6. Communicate risk status throughout project

There are various Kinds of Risks in Software Development.

Schedule Risk :-

Schedule related risks refers to time related risks or project delivery related planning risks. The wrong schedule affects the project development and delivery. These risks are mainly implied to be running behind time as a result project development doesn't progress timely and it directly impacts the delivery of the project. Finally, if schedule risks are not managed properly, it gives rise to project failure and at last it affects the organization/company economy very badly.

Some reasons for Schedule risks :-

1. Time is not estimated perfectly
2. Improper resource allocation
3. Tracking of resources like system, skill, staff etc
4. Frequent project scope expansion
5. Failure in function identification and its' completion

Budget Risk :-

Budget related risks refers to the monetary risks mainly it occurs due to budget overruns. Always the financial aspect for the project should be managed as per decided but if the financial aspect of the project mismanaged then their budget concerns will arise by giving rise to budget risks. So proper finance distribution and management are required for the success of a project , otherwise it may lead to project failure.

Some reasons for Budget risks :-

1. Wrong/Improper budget estimation
2. Unexpected Project Scope expansion
3. Mismanagement in budget handling
4. Cost overruns
5. Improper tracking of Budget

Operational Risks :-

Operational risk refers to the procedural risks which are the risks which happen in day-to-day operational activities during project development due to improper process implementation or some external operational risks.

Some reasons for Operational risks :-

1. Insufficient resources
2. Conflict between tasks and employees
3. Improper management of tasks

4. No proper planning about project
5. Less number of skilled people
6. Lack of communication and cooperation
7. Lack of clarity in roles and responsibilities

Technical Risks :-

Technical risks refer to the functional risk or performance risk which means this technical risk is mainly associated with functionality of the product or performance part of the software product.

Some reasons for technical risks :-

1. Frequent changes in requirement
2. Less use of future technologies
3. Less number of skilled employees
4. High complexity in implementation
5. Improper integration of modules

Programmatic Risks :-

Programmatic risks refer to the external risk or other unavoidable risks. These are the external risks which are unavoidable in nature. These risks come from outside and it is out of control of programs.

Some reasons for Programmatic risks :-

1. Rapid development of market
2. Running out of fund / Limited fund for project development
3. Changes in Government rules/policy
4. Loss of contracts due to any reason

RMM Plan :-

A risk management technique is usually seen in the software Project plan. This can be divided into Risk Mitigation, Monitoring, and Management Plan (RMMM). In this plan, all work is done as part of risk analysis. As part of the overall project plan, the project manager generally uses this RMMM plan.

Risk Management and Planning :-

It assumes that the mitigation activity failed and the risk is a reality. This task is done by the Project manager when risk becomes reality and causes severe problems. If the project

manager effectively uses project mitigation to remove risks successfully then it is easier to manage the risks. This shows the response that will be taken for each risk by a manager. The main objective of the risk management plan is the risk register. This risk register describes and focuses on the predicted threats to a software project.

Drawbacks of RMMM :-

1. It incurs additional project costs.
2. It takes additional time.
3. For larger projects, implementing an RMMM may itself turn out to be another tedious project.
4. RMMM does not guarantee a risk-free project, risks may also come up after the project is delivered.

RMMM Plan for Online Resume Builder :-

Components Category	Performance Support	Support	Cost	Schedule
Catastrophic	Failure to meet requirements on time		Failure due to increased delay which would result into higher costs and expenses	
	Degradation of technical performance	Non-supportive software	Financial shortage and budget problems	Improper flow of control
Critical	Chances of degraded software due to failure in meeting the requirement		Failure in modifying the product which leads to increased expenses	
	Reduction in technical performance	Delay in modifications as per instructed	Shortage of financial resources required for the product	
Marginal	Failure to meet a requirement which would ruin the next target		Recoverable schedule slips as per expected	
	Small reduction in technical performance	Support of responsive software	Sufficient financial resources	Realistic achievable targets planned
Negligible	Failure to meet requirements which would result to bad impression in market/customer		Minor errors in cost computing	
	Improvement in technical performance	Supportable software	Possibility of correct cost computation	Following traditional flow of control as per planned

Risk Characterization Table for Online Resume Builder

Risk Table with Priority Sorting

Category	Risks	Probability	Impact	RMMM	Impact Values	Description
Employee Risks	Lack of training and experience	40%	1	Hiring trained and experienced staff members		
Process Risk	Low product quality	35%	1	Improving product quality with new innovations		
Product Size	Where size estimates could be wrong	30%	2	Communicating properly with the customer regarding product size		
Development Size	Insufficient resources	30%	2	Taking initiative to provide more resources		
Customer Risk	Customer may fail to participate	20%	3	Initiating active participation from the customer in a timely manner		
Technology Risk	Obsolete technology	10%	2	Being updated with upcoming technology	1	Catastrophic
Business Impact	Product may harm the business	10%	3	Paying proper attention to the business while working on the product	2	Critical
					3	Marginal
					4	Negligible

Risk Table with Priority Sorting

Conclusion :-

Hence, we have successfully designed RMMM Plan for Online Resume Builder.

=====

Name : Snehal Ganesh Dahake

En no : 1907011

Batch : A

Software Engineering

IT4101