

SOFTWARE RISK ANALYSIS AND MEASUREMENT WITH QUALITATIVE ASSESSMENT BASED ON PRIORITY AND SEVERITY OF RISKS

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Abstract

Risk analysis is a process which is use to identify the danger factor that may create the problem to achieving the goal. Software project has high rates of failure so Software Risk analysis and measurement is an essential process to handle the various types of risk in projects. This paper focuses on the basic concepts, processes, and techniques of software risk management and based upon that it presents software risk analysis and measurement based on priority and severity. We have planned to develop an application through which we have assumed 3 important people associated with the project that would be able to login securely in the application in order to identify & evaluate risks associated with the project.

Keywords risk, analysis, priority severity, qualitative analysis

1. Introduction

In real world many organizations handling large software project and before making these projects we must know about what are difficulties or what are the risk can involve in these projects. So to manage the risk in project we required risk management. In risk

management prioritization method followed to find the greatest risk, priority means which risk should be remove first. But finding the overall risk in project and their probability is very complex task .to process this activity we use various methods. In our proposed system we will do identification to risk based on priority and severity.

1.1 Risk analysis

Risk analysis is a process which is use to identify the danger factor that may create the problem to achieving the goal. In software risk analysis we also reduce these factors from occurring by using preventing measures. This process helps the organization to make a successful project without any negative effects. This process comes under the risk management threw which we would manage various types risk which are associated with project.

1.2. Purpose

Main purpose of this application is assessment and analysis of risk based on priority and severity. We have assumed that after a project is won, few senior, important members from the team who could be

located in different geographical coordinates need to identify & analyze the risks involved in the software project. So with the help of this application we can analysis of risk in very easy and effective manner within minimum time.

2. Review of literature

In this book author discussed all the detail of risk management. Detailed description how risk management process .in risk assessment how can we identify risk and then defining it. And process for identifying risk events means what is the information need to identify any risk. For example unique id, date of last updation, description about causes, probability of occurrence. How can we analysis and evaluate risk with the help of Qualitative method and Semi quantitative method. [1]

In the studied research paper the author has focused on basically knowledge of the person and past experience of person that how will help in risk analysis. Sometimes developer identify the risk based on his experience .how developer knowledge about risk perception is important to developing various options to handle risk management and how these option can be implemented. As we know to handle the risk in a large project it is necessary to have knowledge about private sector as well as public sector and how they are involved in risk occurrence. [2]

In this following paper the author is giving the classification of risk as we know before analyzing the risk we have to know about what kind of risk can occur in the software project because we should know about that software projects have high rates of failure .so we identified that what kind of risk can occur in project and assessment of these risk done by using probabilistic calculations. Basically it helps us understanding the management process in detail. And in this

paper risk tree structure define. And classification of the risk and tree structure can be applied to some special tool. With the help of this paper we analyzed the risk and their causes and occurrence. [3]

3. Research methodology

In this proposed system we are using waterfall model approach .according to this approach first we collect the entire requirement first and then proceeding step by step. The identification of risks involves their categorization according to priority & severity.

Once a risk has been successfully identified, all possible causes are further identified & evaluated on the basis of their severity & probability of occurrence. Then, a particular risk is ranked on the basis of its probability of occurrence which helps in formulating proactive measures for risk mitigation. After the risk probabilities are determined, we can evaluate the risk severity using Qualitative Analysis Graph.

Qualitative Analysis: Qualitative Analysis Matrix This feature will help us in determining the risk severity. Based on the risk impact and calculated risk probabilities, we will place the risks in the matrix as below:

HIGH			
MEDIUM			
LOW			
	LOW	MEDIUM	HIGH

Figure1

Along the horizontal axis is Risk Probability & vertical axis is Risk Impact. Once we have placed all the risks in the appropriate

cells, it will become convenient to sort & prioritize them based on their severity levels. For ex: a high severity risk would be classified as one that has HIGH Impact & HIGH Probability and so on.

4. Conclusion

The proposed approach attempt to assessment of software risk with qualitative analysis based on their priority and severity. To achieve this approach we are trying to create an application threw developer can manage various software risk associated with the software projects.

5. References

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