**Risk Assessment**

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# **一、Software Process Risks**

1. **Requirement Analysis**

The software development begins with requirement analysis. In the most casas, it needs the communications between developers and customer, finally to form a document named “Requirement Specification”. This phase is a process for confirming the feasibility and consistency of requirements, therefore, communications with customers again and again is essential. In our team, once one of the two members can’t understand the requirements clearly and don’t communicate successfully, the following phase will at a mess and can’t reach the final results. Therefore, it is a critical risk, which is directly connected with the implementation.

1. **Design**

The purpose of the design phase is to achieve the goal defined in the requirement analysis phase, and by the way, check the integrity and correctness of requirement analysis. Thus, the incompleteness and error in the requirement will results to the failure of design. That is one of the risks in the design phase.

The second risk comes from the analysts. If analysts are innovate and inflexible when designing the system structure, the scalability of the system is weak, which will brings huge burden to the later modification and maintenance. Conversely, the software structure is too flexible and universal, which will inevitably cause the difficulty of software implementation and the complexity of the system. This will bring risks in the implementation and testing phase, as well as the stability of the system. From another point of view, how to design the system to adapt the changeable requirements and software running environments is also an unavoidable risk.

The third risk comes from the documents. The imperfect of the documents not only cause difficulties in the implementation phase, but also causes catastrophic consequences in later test and maintenance.

1. **Implementation**

The normalization and readability of the source code, is the main source of risk at this phase. Standard code reduces the risk of system integration and easy to modify to adapt the changeable requirements.

1. **Maintenance**

Software maintenance contains two risks. One is in the completion of software production to the software trial run phase, whether the testers can find bugs and problems that exist in the system or not, which is directly connected with the customer satisfaction and corporate earnings.

The other one is when the software is no longer adaptable to the customers’ needs or the running environment (including the hardware platform, the software environment, etc.), which results in the risks about the software version upgrades or software transplants.

# **二、External Risks**

1. **Schedule Risk**

Our team consists of two members, and we still have classes and homework for other courses. Time is an important risk, it has to be ensured to finish in time.

1. **Ability Risk**

The abilities for team members are also need to be considered. The technical abilities include the documental writing and programming. Good documents can guide the successful execution for the implementation and make customers easy to understand. Also perfect codes can make others comprehend clearly and are easy to modify to adapt the changeable requirements and running environments.

Besides the technical ability, the self-learning、cooperation and stress tolerance are also critical. The implementation of system may involve with some new knowledge need to be studied by ourselves, self-learning ability helps us to solve problems without the help of others. In addition, it is a team work, each person has his own thoughts, how to form one project under two different thoughts is really a big deal in the process. So we have to learn to communicate again and again, and respect others’ opinions. In the end, the process for finishing a project may meets lots of problems and takes much time, a good stress tolerance is necessary to help us to keep on.

1. **Equipment Risk**

Our equipment only has two computers, which may loss control sometimes and run at a slow speed, that is a big trouble to our development.

# **三、References**

1.软件项目风险评估报告[EB/OL]. https://wenku.baidu.com/view/8872026f1eb91a37f1115c36.html