**Risk Document**

**for the**

**SIUE Department of Computer Science**

**CS425 / CS499 Senior Project**

**Software Design and Implementation Courses**

**by**

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**of**

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**Learning Outcomes-Based Assessment Database Team**

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LOBA-PP-RISK

Change Log:

|  |  |
| --- | --- |
| Revision | Change Note(s) |
|  |  |
| 1.0 | * Initial Release |

Reviewed and Approved By:

Name Signature Date

1. **Risk Evaluation**

Below is the risk evaluation, which includes a summary potential risks and visual aids to assist in detecting when there is high risk.

* 1. Risk Table

The risk table defines a risk and is rated off of two indicators. First, the likelihood the risk will occur on a zero to five scale (zero meaning impossible and five meaning very likely). Second, the impact the risk will have if it does occur is given. This score is also on a zero to five scale (zero meaning no impact whatsoever and five meaning an overabundant negative impact). These two scores are multiplied together to give the Risk score. The legend below indicates how sever the risk being dealt with is. Finally the contingency plan is a brief summary of a backup plan in the case the risk occurs.





* 1. Contingency Plan

The following contingency plans have been entered by number in accordance to the risk number listed on the risk table above. These will represent the course of action to be taken if the event the risk describes occurs.

1. Issue connecting the database within the application – It is an important need to have the database accessible by the application and there is some uncertainty in how we are going to do this. There is the idea that we can wrap up the .dll file and .db file needed to run the database and store it in the project repository. If this fails we may be forced to use flat files until a more permanent solution is found. Using flat files jeopardizes security and efficiency of the storage of student information and would risk us not meeting a client specification.
2. Technical difficulties in implementing the software can all cause delay - Issues installing communication software and learning curves on bit bucket management systems may cause some delay in the initial sprints. To mitigate this the team is assigning a team expert on a given set of technology that is new to the other members and that individual will help the other members of the team with using the new software.
3. Changes in customer’s needs - If the client has a change in requirements then the team will meet with the client and reassess the changes.
4. Difficulty making the software multi-platform - In the event that we cross platform problems become an issue that cannot be fixed without delaying development substantially then the team will have to reevaluate the Operating System(s) that take precedence for the software.
5. Difficulty Learning Java Code - Failure to learn java code in sufficient amount of time will disable the team from starting the project as described in the schedule. The team has made this a higher priority and will assume it is very unlikely for this contingency plan to be needed. That being said, the language the team can use as a back up that will be cross platform would be to program in C++. The team is already familiar with C++ and would have to use frameworks such as Qt to assist in GUI development. This will pose a particular challenge to develop cross platform and could also risk violating the requirement to make the
6. Failure to meet the specified performance - In the case that the team does not complete the software in the allotted amount of time then the team must document what needs to be finished for future team(s) to fix.
7. Update Automatically - In the case that automatic updating becomes tedious to implement, an thorough explanation of how to update needed software will be included in the manual.
8. Using ITS to directly link to Blackboard - In the case that ITS will not allow the team to use an automatic connection to blackboard then the team will simply rely on the feature to export grades to a .xls file for teacher to upload it to Blackboard.

* 1. Risk Cube Indicator

The risk cube indicator is a visual aide that can assist understanding the level of risk a given project is at. The main things to look for in the risk cube indicator is the size of the cube and the color of the cube. Ideally the cube should be small and yellow to white colors. However, as the cube grows bigger and more red starts to appear this can indicate that the risk is becoming higher.

