

Handout Product Risk Assessment

Assessing Product Risk

According to software risk management, risk is defined as "the possibility of failure times the potential damage if the risk occurs." The risk assessment proposed is a simplified version of more formal risk assessment techniques that project managers often use. Fourteen of the most common risks identified by best practice literature are listed. The goal is to assess the risk for each high-level module/feature within a product. The tester reviews each listed risk and assesses the likelihood of that risk impacting the particular module/feature under consideration.

The following step-by-step instructions provide a guide to assessing product risk and calculating the risk score. A simple scale of low to high is used to rate the probability of that risk occurring for each feature. After each risk is rated, a risk score for each module or functionality is calculated.

1. Use the following scale when assessing risk for each module:
 - N/A (0) - This risk doesn't apply to this module or function
 - Low (1) - This risk could occur, but it isn't likely
 - Medium Value (3) - This risk probably will affect this module or function
 - High Value (5) - This risk definitely will impact this module or function
2. Rate each functional unit or module in the proposed system based on the likelihood of that risk occurring.
3. Calculate a risk score for each module.
4. Rank the modules, starting with the highest risk score.

The table below provides an example of a risk tool and a completed assessment of four software modules (functions 1-4). The tool can be customized to include different risks for specific application types such as e-commerce or object-oriented software projects.

Product Risk Assessment

Potential Risk	Function 1	Function 2	Function 3	Function 4
1. Modules that will be used heavily by users	High (5)	N/A (0)	Medium (3)	High (5)
2. Modules with very complex functions	High (5)	High (5)	Low (1)	Medium (3)
3. Modules that have been "fixed" or updated often	Low (1)	Low (1)	Low (1)	Low (1)
4. Functions that require high availability	N/A (0)	N/A (0)	N/A (0)	N/A (0)
5. Functions that require consistent performance levels	Medium (3)	N/A (0)	Low (1)	Medium (3)
6. Functions that use new development tools and languages	N/A (0)	N/A (0)	N/A (0)	N/A (0)
7. Functions with many interfaces	N/A (0)	N/A (0)	Low (1)	Medium (3)
8. Functions developed by inexperienced developers	N/A (0)	N/A (0)	N/A (0)	N/A (0)
9. Functions developed with inadequate user involvement	High (5)	High (5)	High (5)	High (5)

Potential Risk	Function 1	Function 2	Function 3	Function 4
10. Functions developed by a large development team	High (5)	High (5)	High (5)	High (5)
11. Completely new functions	High (5)	N/A (0)	N/A (0)	High (5)
12. Functions developed under extreme time pressure	Medium (3)	Low (1)	Low (1)	High (5)
13. Most important function to stakeholders	Medium (3)	Low (1)	Medium (3)	High (5)
14. Functions that had large numbers of defects in previous versions	N/A (0)	N/A (0)	Low (1)	High (5)
Risk Score	35	17	22	44