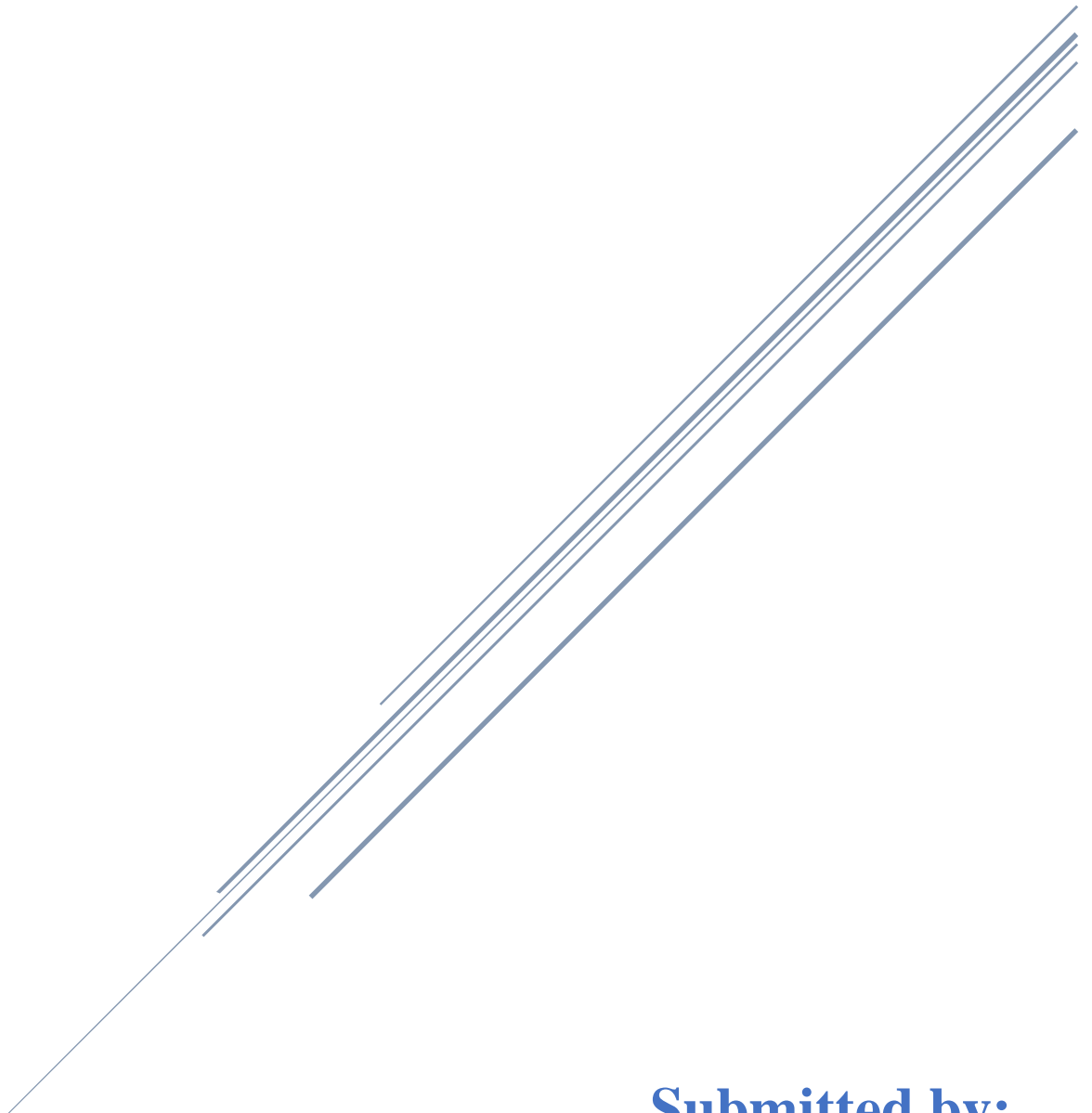


PROJECT QUALITY ASSESSMENT

Systems Migration Project, J.D. Monster Bank



**Submitted by:
ISYS 630-601 Group 01**

Project Quality Assessment

Software quality according to Feigenbaum:

“Quality is a customer determination, not an engineer's determination, not a marketing determination, nor a general management determination. It is based on the customer's actual experience with the product or service, measured against his or her requirements -- stated or unstated, conscious or merely sensed, technically operational or entirely subjective -- and always representing a moving target in a competitive market.”[1]

To assess the software quality of J.D. Monster Bank, we will be using Consortium for IT Software Quality (CISQ) quality model. CISQ is the industry standard when it comes to project quality assessment. Software quality can be measured using the five factors mentioned below:

Reliability:

Reliability is the measure of chances potential failures of the J.D. Monster Bank's cloud infrastructure. The system shall undergo various levels of smoke and aging tests to measure the reliability of the system in events of heavy traffic. The system must pass extreme system and application based tests. It will be subjected to pen testing, where the system's performance would be measured in scenarios such as overflow in thread pool, external attacks such as DDOS, consistency of data among various nodes etc.

Efficiency:

Efficiency is the measure of performance of a system on the given infrastructure. Efficiency plays an important role in all kinds of software. Efficiency is based on several attributes in the migration project. It depends on the space and time complexity of the algorithms. These complexities define the memory requirements and time taken by the algorithm to perform its tasks. There are numerous ways to doing things but it is important to make sure that the most efficient algorithms are used. J.D. Monster Bank is a cloud based infrastructure. Such systems are heavily dependent in network performances and data read write speed in the servers. Efficiency can be improved by checking for bottlenecks in the network flow and using the fastest read write operations.

Security:

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Security is one of the most crucial aspect of any institution especially financial institutions such as a bank. To make sure that the system is secure, it will be subjected to extreme pen testing by external pen testing professionals. These testers will test the system for various kinds of vulnerabilities in the network, in applications or in data storage. Such kind of testing will make sure that the system is secure from attacks such as denial of service, malware, packet sniffing etc.

Maintainability:

Maintainability is the measure of a system's modularity and reusability. Organizations make huge investments in developing infrastructure. The intent to use this infrastructure for a long time. Maintainability ensures the system is adaptable to changes in time, that is modular to add or remove features as per requirements. To ensure that the system is lasting a set of guidelines should be used. The system should have proper documentation, it should be portable, and it should have independence in terms of hardware, software, operating system and database. The algorithms used should be low on complexity, code should be readable and follow coding guidelines.

Size:

The size of the system is measured on two scales: lines of code and function point analysis. Lines of code provides details in terms of code size and code complexity. A system with greater number of lines will use more memory and will be more complicated to understand. Reducing the number of lines in the code reduces the file size which in turn reduces the size of the complete binary. Another method for analysis is function point analysis. It is based on requirements provided by the user and has description of the size of the system along with the value delivered. At J.D. Monster Bank, it is important to keep size in check as the migration platform contains a lot of data from the merged banks.

Reference:

- 1 https://en.wikipedia.org/wiki/Software_quality