

Quality Plan:

1. Quality goals and metrics –

Product Quality	Quality Goals	Quality Metrics	Strategy
Availability	System would work continuously	The system should have 98% availability on the day.	As this is an academic project, we are not deploying it anywhere through Teamcity or Azure. However, it will be available always on Github
Reliability	The system should work correctly at all times	Less than 2% occurrence of errors should be accepted.	This involves Stress testing which can be achieved by ensuring that system will not crash in conditions such as memory, disk space or network request. Addition to this transactional stress testing will help to perform the stress testing by checking that application is interacting with different modules of the system properly
Robustness	Test the exceptional handling	For given input data, no error should occur	Test system stability under stress, that is stability testing.
Learnability	The system should be easy to learn to use.	The system can be effectively used by a new user	Learnability will be how easy it is for a user to learn how to use our system
Usability	The system would be highly user friendly.	The system would have a well-designed and simple interface.	Usability is achieved by the capability of the software product to be understood, learned, used and attractive to the user, when used under specified conditions.

Efficiency	The system should feel responsive.	The system should be able to return search results in < 1s.	Efficiency involves multiple factors: efficient communication within the software team, efficient planning of quality and test plan for a project, testing objectives- that is working of functional and non-functional requirements as expected.
Security	The system should not be compromised in any case.	Track issues identified by missing unit test cases and fix it	Security will be the capability of a system to protect the information and to prevent the loss of information (data should be secure).
Portability	System should work well with the databases, for example inventory database	Data retrieval should happen successfully	Portability can be achieved by testing the application from one android version to another, that is, we are moving the testing from one environment to another
Process Quality			
Maintainability	The system should be easy to maintain	Application should be well documented and easy to understand. Coding standard should be followed	Create documentation for project and maintain it in git repo.
Testability	The system should be easily testable	Black box and white box testing	Testability will ensure the easy and early detection of bugs which will also save the time. Focused on functional testing. It will minimize the efforts needed by the testers to perform testing. Finally it will include availability, stability, simplicity, and observability

Priority of quality goals

1. Availability, Reliability.
2. Efficiency.
3. Usability, Learnability.
4. Robustness, Maintainability.
5. Security, Testability.
6. Portability

Additional Notes:

In a limited time, frame, there is only so much we can accomplish. Which is why we list the priority of our goals for the project. This was done after careful consideration of all our team members to weight all options relative to the opportunity cost of attaining these goals. Another key consideration while prioritizing was the quality of work, compromising on quality could lead to an inefficient solution to the problem which, potentially can do more harm than good. Availability and reliability are at the top of our list because if the software is not working properly or pages are taking too long to load it will make the user lean towards going back to the traditional pencil and paper ways of doing work. Next is efficiency, all tasks should be done in a reasonable amount of time which ensures that there are no delays in the various processes taking place at the establishment. Tasks need not be in the most efficient way possible but fast enough to decrease the overall time to do tasks the traditional way. Another important priority is usability and learning, this though comes after the previous set goals. This is because if the user takes an extra day or two to learn the system it won't affect the overall time to complete necessary tasks in the long run.

With the first few goals our focus is the end user and how these goals would benefit the client for the life of the software. Next, we focus on developer concerns, limited future development of this project is expected. The end user will not have any idea of these qualities which include robustness and maintainability. Robustness, maintainability, and testability will ensure that everything works smoothly when the software is used by the end user. Security is important here but not a priority because no user data is stored in the system, too much focus on security might limit features. Since the whole system is going to be working under one roof on preset systems, portability of the software is not a priority for the restaurant.