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Tutorial class: Tue 12:30 EN310

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Project Proposal¹: GotoGre MRM

Quality Management

Define what is meant by Quality in the context of this particular project, and indicate how you would measure quality, and what acceptable measurements are. Be S.M.A.R.T.

In the context of this particular project, I believe quality software to be one which follows well-known, standard, popular design principles/patterns, alongside a complete set of automated tests, for each individual functionality. That way, not only will the code be readily understandable by other developers later on, but will also be function properly even when parts are swapped (as good design principles follow good modularity). Furthermore, it will also be completely transparent, making it easier for anyone to see how things are linked with one another and thus even if any part is altered, and the consequence / side effects would be known beforehand.

These qualities can be maintained by following certain guidelines from the ISO 25010 model:

- Functional suitability: (Functional Completeness) more than 80% of the features kept aside for sprint 1 has been completed in the sprint alongside their individual test cases (at least 1 success and 1 fail case test for each functionality)
- Performance efficiency: (Time Behaviour) response time for error message/ acceptance message for the employee when adding a new user will take less than 1 seconds to load, once the software has been fully developed and deployed
- Performance efficiency: (Resource Utilization) the total amount of memory taken by the core components of the software will be 10mb or less while the maximum storage space allocated for the database (ie sales, member, item table information) will be set to 1gb, once the software has been fully developed and deployed
- Usability: (User Interface Aesthetics) the software will have a simple menu system with simplistic design to ensure that the focus of the user remains on the information presented, by the time the software is fully developed and deployed
- Usability: (User Error Protection) the software will send an error message to the user within 1 sec of submission if the user violates any restrictions given on input method (ie password greater than 10 characters, etc) and the input restrictions will be mentioned near the boxes in the form, by the time the software has been fully developed and deployed
- Security: (Confidentiality) the software will only allow the user with proper username and password to access any information stored in it (even the basic menu itself) within 1 sec of delay, by the time the software has been fully developed and deployed
- Security: (Integrity) the software will prevent unauthorised access by returning an error message when mismatch occurs in login, within 1sec delay, and not display anything else other than prompting for reentry of data, by the time the software has been fully developed and deployed

¹ This document is by no means a "full project proposal". It has been simplified and customized for the purposes of SWE30010 teaching. The full project proposal includes many other sections which have not been discussed during the first few weeks of SWE30010 teaching.