Software Quality and Definition of Done
- Group Task 06P

Team Name: Team Grotle

Tutorial Class: Tue 12:30 EN310

Team Members:

Tutor: Naveed Ali

Group members	Student ID	Comments (Agree, disagree with final outcome, and Why)
Hamish	103607352	I'm satisfied with the end scope submitted. I feel that it's an excellent summation of all our ideas and inputs. It's concise but not to the point where the scope described is vague. I also think that it addresses what's required by the background. 10/10
Dilni	103616345	The following task 6 was completed, I am happy and satisfied with it. I think it should fit the criteria that our application must fulfil to have outstanding quality. Additionally, every team member contributed the correct amount of work that was completed to a high level in a timely manner.
Kamar	103607585	I am happy and satisfied with the outcome of task 06P. The work was divided among the members according to what they were happy to do and what grade they are aiming for. All members completed their part of the task to a great standard. Ideas and suggested improvements were communicated in a friendly manner.
Melanie	103489466	I agree with the final outcome because all members have contributed equally to this task.
Justin	102589705	I am happy with the outcome of the task. Everyone did an exceptional job in the completion of their respective tasks. The criteria were understood and we all gave our best effort.
Tevy	103139978	I agree with the final outcome. We had a meeting to make sure we understood the same thing, then we divided our part to be done equally.
Cormac	102581060	I am very pleased by the groups' efforts in the completion of this task. The tasks were divided up evenly and appropriately based on each member's target grades and this allowed everyone to do their best work. Ideas were broken up and changes were discussed civilly and cooperatively, allowing us to focus on completing the task to the best of our ability.

Product Backlog

No.	Item	Dependencies	Business Value (1 least – 10 most)	Release Schedule (Sprint 1 | 2)
F1	Add a new member	-	10	Sprint 1
F2	Deactivate member	F1	8	Sprint 1
F3	Search for member	F1	2	Sprint 1
F4	Edit existing member	F1	2	Sprint 1
F5	Add a sales record	F1	10	Sprint 1
F6	Record in the spreadsheet of purchase logs and product levels. Downloadable in CSV format	F1, F5	9	Sprint 1
F7	Search for sales record	F5	2	Sprint 2
F8	Update sales record	F5	7	Sprint 2
F9	Remove Sales record from view	F5	1	Sprint 2
F10	Produce a daily sales report on popular items (what was sold the most) Downloadable in CSV format	F5	8	Sprint 2
F11	Produce a weekly sales report on popular items (what was sold the most) Downloadable in CSV format	F5	8	Sprint 2
F12	Produce a monthly sales report on popular items (what was sold the most) Downloadable in CSV format	F5	8	Sprint 2

Functional Stability

Functional correctness

Backlog item:
F10: Produce Daily sales report
F11: Produce Weekly sales report
F12: Produce Monthly sales report

Characteristics: The core characteristic that must be considered is “functional suitability”, with the sub characteristic being “functional correctness”.

Justification: Functional correctness is the degree to which a product or system provides the correct results with the needed degree of precision. In using this as a quality metric, we can create the assurance that the reports are generated with precision.

Measurement: It is important that the reports that are being generated should be made with 100% accuracy. These reports are made essential in predicting customer sales trends, and any inaccuracies could prove fatal when predicting popular items. To consider this function as “done”, during the testing phases the number of errors found within the report should be less or equal to 5% of the total test cases.

Functional Appropriateness

Backlog item:
F10: Produce Daily sales report
F11: Produce Weekly sales report
F12: Produce Monthly sales report

Characteristics: Considered here is the characteristic of Functional Suitability and the sub-characteristic of Functional Appropriateness.

Justification: Functional Appropriateness within functional suitability refers to how well specific functions are able to accomplish or complete tasks or objectives. Using this as a quality metric, allows us to observe how efficient the functions are and how well the user can accomplish specific tasks.

Measurement:
If the system produces the expected outcome successfully 95% of the time, the system has achieved functional appropriateness.

Usability

Operability

Backlog item:
F1: Add a new member
F2: Deactivate member
F3: Search for member
F4: Edit existing member
F5: Add a sales record
F7: Search for sales record
F8: Update sales record

F9: Remove Sales record from view

Characteristics: Usability → Operability

Justification: Operability is considered so that the system will be easy to operate and control, allowing GotoGro employees to perform their tasks comfortably and quickly.

Measurement: To measure this quality, usability tests will be carried out. Since the users of the system are GotoGro employees and managers, we will recruit some of them to carry out these tests. When testing each feature, users will be given a task along with a time limit. The exact time limit for each task is listed in the table below:

Backlog Item No.	**Task**	**Time Limit**
F1	Add a new member	60 seconds (1 minute)
F2	Deactivate member	10 seconds
F3	Search for member	60 seconds (1 minute)
F4	Edit existing member	20 seconds
F5	Add a sales record	60 seconds (1 minute)
F7	Search for sales record	10 seconds
F8	Update sales record	60 seconds (1 minute)
F9	Remove Sales record from view	20 seconds

To consider the system "done", 90% of users must be able to complete the given tasks within the specified time limit. Our team has decided to allow up to 10% of users to fail since they may not be able to get used to the system in such a short amount of time.

User error protection

Backlog item:
F1:Add a new member
F2: Deactivate member
F3: Search for member
F4: Edit existing member
F5: Add a sales record
F9: Search for sales record
F10: Update sales record
F11: Remove sales record from view

Characteristics:
Usability → User error protection

Measurement:
Protect users from errors occurring by the use of code unit tests which will limit errors from occurring 90% of the time. Hence errors should only arise 10% of the time. This will show useability and user error protection. Additionally, when an error does occur the application should come with an option

and a message with the error and its causes. Furthermore, the application will tell the user to reboot and restart the software which will take 30 seconds. This fixes the error 100% of the time.

Justification:
Ultimately this fulfils the criteria of useability that the goals of the software features are effectively, efficiently, and satisfactorily for the user. Hence has usability but more specifically user error protection as the code testing should result in errors occurring only 10%. In addition when the errors do occur the application has to restart which should only take 30 seconds. This error prevention ultimately protects users from errors from occurring and being made accidentally by the users due to bad software. To achieve user error protection, the total number of user errors and user cancelled operations should be less than or equal to 95%.

Reliability

Availability

Backlog item:
F5: Add a sales record

Characteristics: Reliability→Availability

Measurement: The number of Available times (uptime) must be greater than or equal to 90% with a downtime of 10%.

Justification: Availability ensures that whenever the service is needed, it must be accessible and operational. This characteristic is very important to the system because downtime could affect the company's sales record management, which leads to inaccuracy in analyzing sales reports.
To consider this done, during the specific development period, there has to be 90% uptime and 10% downtime.

Recoverability

Backlog item:
F6: Record in the spreadsheet of purchase logs and product levels.

Characteristics: Refers to how well a product or system can recover data in the event of an interruption or failure.

Justification: A way to ensure recoverability will be to have copies of the database table saved both in the cloud and locally.

Measurement: Saves of the databases must be automatically saved regularly while being used. The save process mustn't impact usability, to the extent that the active user isn’t able to continue working. Testing will be done on the saves under different circumstances to see how the system will react. To measure this, the system must save data every 5 minutes periodically. This should have a 90% success rate with a 10% failure rate of saving every 5 minutes.