

Sprint 2 Planning: GotoGro-MRM

Team Details

Team Name:	MSP 14
Tutorial:	Tue 2:30 ATC325
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Selection Factors

The backlog for sprint two was initially defined in 02P but has since changed due to efficiency of sprint one and moving more tasks from sprint two to sprint one.

Likewise in the sprint one planning stage the following factors defined in table 1 can be used to qualify the importance of each sprint item. Unlike sprint one, timeline is now an included factor as it will be more important as the delivery date is more relevant to the number of features able to be implement in the remaining timeframe.

Table 1. Justification of Selection Factors

Factor	Justification
Feature Dependency	Feature dependency was agreed to be the most important factor, especially in the early stages of the project. Since the features developed in sprint 1 are likely to be the most fundamental, everything that comes later is likely to depend on them. This will be used as the primary deciding factor.
Business Value	Business value is inherently important, as this is primarily defined by the client and will be what the client looks for when the project is delivered. That said, business value is harder to quantify than dependency leaving it as a secondary deciding factor.
Development effort	Development effort is a minor consideration to be made when engaging in the sprints. Assuming feature dependency and business value are approximately equal, development effort could be used as a discriminator. In general, the task that takes less effort for equal value will be prioritized.
Risk	Risk is another minor factor which uses the same logic as development effort. All things equal, the item of lower risk will be prioritized.
Timeline	The predicted amount of time required to design and implement a feature.

Much similarly to sprint one the factors are ranked in terms of weighted importance as so:

Feature Dependency > Business Value > Development Effort > Risk > Timeline

Table 2. Affinity definitions

Factor	High (3)	Med (2)	Low (1)
Feature Dependency	3 or more features require this as a prerequisite	Only 1 or 2 features require this as a prerequisite	No other feature requires this feature as a prerequisite
Business Value	The client has directly specified this feature as a requirement	The feature has not been specifically requested, but it is required to better meet another direct requirement	The client has not specifically requested the feature
Development effort	Development effort is minimal in hours, implementation knowledge is to a high level	Development effort is average but there is some research or trial and error required to implement	Development effort is high in hours including time required to research implementation
Risk involved in developing the item	Feature is low risk: Easily replaced and-or reimplemented, not critical to the function of the program, any team member could implement it.	Feature is medium risk: Somewhat replaceable, is required for program function but cannot be easily damaged. Only 1 or 2 team members can implement it easily.	Feature is high risk: Irreplaceable and critical to program function. Only 1 team member knows how to implement it.
Date Needed / Timeline	The time required to design and implement this is less than 4 hours	The time required to design and implement this is more than 4 hours	The time required to design and implement this is more than 8 hours

Using the Previous factors and justifications a more accurate selection can be made for the most important backlog items.

Product Backlog Selection

The items below were either first identified in O2P or added after feedback received on sprint one.

Table 3. Product Backlog Items

Item	Business Value	Development effort	Feature Dependency	Timeline*	Risk involved*
UI Redesign	Med	High	Low	High	High
CSV reports	High	Med	Med	Med	Med
PDF reports	Med	Med	Med	Med	High
View member sales record	Low	High	Med	Med	Med
Predict inventory	Med	Low	Med	Med	Med

***Note, “High” affinity for the risk factor means the feature has low risk associated with it**

According to the above analysis UI redesign is the highest priority task with CSV reports closely following in second.

CSV reports should be given extra care as it is one of the few direct customer requests and is a hard requirement for the software functionality whereas UI is a self-defined requirement.

Time/Effort Estimation

All items identified in table 3 are to be compared using the same set of metrics. These metrics are in place to identify how easily an item will be to implement and uses member skills/history as a direct metric to compare each task. All items were discussed as a group and the below is a summary of our discussions.

Table 4. Time/Effort Estimation metrics

Metric	Description
Research Required	The amount of time in hours of research will be needed to learn how to implement the backlog item.
Testing Time	The amount of time to test functionality
Development Time	The actual time needed to build the solution
Previous skills	The skills of each member and past experiences developing similar solutions.
Estimated time	Given the other listed metrics this is the total estimated time it will take to implement the backlog item.

Table 5. Time/Effort Estimation for UI Redesign

Metric	Justification
Research Required	1 hour at most will be needed. The design of UI does not require much research aside from looking into existing solutions for inspiration.
Testing Time	A large part of UI design is testing how intuitive the controls are by having an end user test to see how easily they can perform a set of tasks. The number of tasks in the software is minimal so around 2 hours should be enough to find a suitable solution.
Development Time	2 hours at most. The current solution allows for UI to be quickly changed via the inbuilt drag and drop tools.
Previous skills	Multiple members of our organization have experience in user centered design practices. This should help minimize the effort required to implement a solution.
Estimated time	5 hours

Table 6. Time/Effort Estimation for CSV reports

Metric	Justification
Research Required	Around 2 hours should be enough to research. This functionality is a built-in tool to MySQL through a batch file and can be used out of the box with our current design.
Testing Time	2 hours at most as if it works once, it will continue working but testing will be required while developing the solution.
Development Time	4 hours at least. Inbuilt tools can be used to export csv files so not much code will be required to implement this solution, but code is still required.
Previous skills	A member of the team has already implemented a similar solution in the past using slightly different tools, but it should have some overlap, reducing time needed.
Estimated time	8 hours

Table 7. Time/Effort Estimation for PDF reports

Metric	Justification
Research Required	Around an hour should be sufficient as this solution will use inbuilt tools.
Testing Time	Also, around an hour should be sufficient.
Development Time	4 hours should be sufficient as inbuilt tools will be used to implement this item.
Previous skills	A member of the team has already implemented a similar solution in the past using the exact same software.
Estimated time	6 hours

Table 8. Time/Effort Estimation for Member Sales records

Metric	Justification
Research Required	2 hours, this solution is simply an SQL query using user input to restrict output. This is like solutions currently used with the software and some code can be reused.
Testing Time	2 hours, in line with development and assessing post development to ensure it functions well.
Development Time	Again 2 hours. This will be just a simple SQL query much like those already implemented.
Previous skills	All members of the team have been using the skills required to make this item in the current version of the software.
Estimated time	6 hours

Table 7. Time/Effort Estimation for inventory Predictions

Metric	Justification
Research Required	6 hours. This item would require prediction mathematics that is not like anything available with inbuilt tools or previously implemented.
Testing Time	4 hours at least as this would need to be tested over a period of time with larger data sets than previously used.
Development Time	This will be the largest amount of development time and will require the most code of the other solutions 6 hours will be needed to make a solution that works well.
Previous skills	No member has built anything like this before so extra time will be needed.
Estimated time	16 hours

Summing all previous backlog item times gets us to a total of 41 hours to implement all product backlog items mention for sprint two. This is within the 48hours allocated and should be all achievable with the timeframe to a high standard.