Sprint 2 planning: Management System (GotoGro-MRM) for Goto Grocery Inc.

Team: MSP_CL4_T1	
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Enzo Peperkamp - 102895415

After scrutinizing the proposed plan for Sprint 2, I find the emphasis on feature dependencies particularly insightful. Acknowledging the intertwined relationship between features, such as the dependency of deleting users on adding new users, establishes a solid foundation for systematic progression. I am aligned with the direction we're taking and feel that our estimations, especially using the analogy technique, are well-justified.

Nelchael Kenshi Turija - 103057559

I am particularly impressed with the multi-pronged estimation techniques we've employed this sprint. The meticulous analysis and clear rationale provided for each task further instill confidence in our strategy. The emphasis on business value resonates with me, ensuring we prioritize tasks that bring about tangible benefits.

Julian Codespoti - 102997816

The careful delineation between feature dependencies, development effort, and risk speaks to a mature understanding of our project's intricacies. Drawing from my software development background, I believe the separation of concerns in our report aptly mirrors the MVC approach. Additionally, I appreciate the foresight in planning for increased velocity with Lachlan's inclusion, optimizing our resource allocation.

Alex Kyriacou - 103059830

Having been closely involved in discussions around the chosen architecture, it's heartening to see its merits reflected so comprehensively in our sprint plan. The detailed estimations, especially the by “experts” / “Delphi” techniques, underscore the collaborative spirit of our team. I'm confident that this sprint will pave the way for successful future iterations.

Marella Morad - 103076428

Our team's in-depth approach to identifying the relationship between features, especially noting the importance of business value even in the face of risk management, is commendable. I believe our approach in Sprint 2, backed by robust estimations and a clear direction, will prove instrumental in Goto Gro's growth.

Lachlan Martin - 103067448

As a recent addition to the team, I'm impressed with the clarity and precision of our sprint plan. The emphasis on risk, especially understanding its ties with each backlog item, resonates with my experience. Since, I’m a bit behind on the overall development process on this project, I will instead help in areas where I find myself really strong at which is Website Automation Testing. I'm eager to contribute and collaborate in ensuring our planned approach for Sprint 2 is actualized seamlessly..

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Task 1

Feature Dependency

This outlines any dependencies a sprint backlog item may have. For instance, the backlog item of deleting users is dependent on the feature of Adding new users, because users cannot be deleted without first being added.

Why this factor is important for Sprint 2

Feature dependencies still play a vital role in this sprint. Without clear insights into these dependencies, there's potential risk in misallocating resources or initiating development on features prematurely. By continuing to prioritize feature dependency, we ensure an organized and systematic approach to our sprint backlog.

Development Effort

This captures the various factors like the time, expertise, and resources essential to realize a project, with a keen focus on task intricacy and the expertise of our team.

Why this factor is important for Sprint 2

While we're focusing more on risk in this sprint, development effort remains paramount. An accurate estimation allows for a pragmatic allocation of resources and task distribution, directly impacting risk management. A miscalculated development effort can result in overcommitment, potentially jeopardizing the sprint’s objectives.

Business Value

This criterion evaluates the intrinsic value of a backlog item to the enterprise. A high business value can be attributed to items that either offer a competitive advantage or address critical issues prevalent among users.

Why this factor is important for Sprint 2

Incorporating risk assessment does not diminish the significance of business value. Aligning our priorities with items that offer tangible value ensures that we're not just mitigating risks, but also driving growth and satisfaction for the business and our customers.

Risk Involved in Developing an Item

This encompasses potential challenges or threats linked to the implementation of a backlog item. Risk factors can range from technical to external market-driven changes. In Sprint 2, we’re emphasizing this criterion to aid in our resource planning and delivery efficiency.

Why this factor is important for Sprint 2

Given the project's evolution, understanding and mitigating risks becomes indispensable. Despite the inherent advantages of our current project structure, such as an internal project nature and a stable development environment, there are still risks linked with each backlog item. By evaluating these, we can anticipate challenges and make informed decisions about which items to include in the sprint backlog.

Task 2

This ranking takes into consideration the importance of feature dependencies, development effort, business value, and risk involved in developing each backlog item. The frontend sales records management web pages are given the highest priority as they are essential for basic data management and likely have dependencies on other features. Products management and reporting web pages follow as they are crucial for inventory and reporting needs. The search and prediction algorithm, dashboards, and reports and analytics are also vital, but they may not possess as direct dependencies. Finally, the member management web page is ranked lower as it involves testing and may not directly impact core functionality in Sprint 2.

Ranking	Layer	Epic	No.	Item
1	Frontend	Sales Records Management Web Pages	F22	Build web page to allow users to add new sales records
2			F23	Build web page to allow users to edit existing sales records
3			F24	Build web page to allow users to remove sales records
4		Products Managment Web Pages	F25	Build web page to allow users to add new products
5			F26	Build web page to allow users to edit existing products
6			F27	Build web page to allow users to remove products
7		Reporting Web Pages	F28	Build web page to allow for sales data import via CSV
8			F29	Build web page to allow for data export to CSV
9			F30	Build web page for viewing sales reports and analytics
10		Search and Prediction Algorithm	F16	Create a prediction algorithm
11			F31	Implement search functionality with filters
12		Dashboards	F33	Create Dashboard for Inventories
13			F34	Create Dashboard for Users
14		Reports and Analytics	F35	Improve Inventory Reporting Function
15			F36	Improve Sales Reporting Function

In Sprint 1, our team of 5 planned for a total of 79 hours of work, which translates to roughly 16 hours for each team member over the course of the two-week sprint. This planned velocity equated to an average of 7.9 hours of work per day for the team.

However, when we look at our actual performance in Sprint 1 (see the table below), our team achieved an average velocity of 7 hours per day.

Setting	Start	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	AVG
Planned Hours		7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.9
Actual Hours		6	6	6	10	13	7	6	6	8	2	7
Remaining Effort	79	73	67	61	51	38	31	25	19	11	9	
Ideal Burndown	79	71.1	63.2	55.3	47.4	39.5	31.6	23.7	15.8	7.9	0	

In Sprint 2, with the addition of a new team member, Lachlan, it's reasonable to anticipate an increase in our team's velocity. This is in line with the typical expectation that more team members can potentially lead to increased productivity.

To ensure a safe and flexible planning approach, it would be prudent to plan for a total of 96 hours of work for the sprint, which equates to an average velocity of 9.6 hours per day. This planning target takes into account the potential positive impact of the new team member while allowing for a comfortable margin of flexibility, aligning with the principle of being conservative in our estimations.

By setting a planning target of 96 hours, we’re taking a cautious yet realistic approach, ensuring that we have the capacity to handle the work effectively while maintaining a commitment to delivering quality outcomes.

Task 3

Estimating by Analogy:

The estimation of the following tasks can be accomplished using the **Estimating by Analogy** technique, primarily due to the common functionalities they share with the **Member Management Web Pages** epic completed in Sprint 1. Each of the tasks in question involves building web pages for Sales Records Management and Products Management. While the Member Management web pages took approximately 4 points to develop, it's important to note that these Sales Records and Products web pages have distinct properties and requirements specific to their respective domains. Consequently, a reasonable estimate for each of these tasks would be approximately 5 points per web page. This approach leverages the analogy of development effort from the Member Management epic while accounting for the unique aspects of Sales Records and Products Management.

Epic	No.	Item	Estimation
Sales Records Management Web Pages	F22	Build web page to allow users to add new sales records	5
	F23	Build web page to allow users to edit existing sales records	5
	F24	Build web page to allow users to remove sales records	5
Products Management Web Pages	F25	Build web page to allow users to add new products	5
	F26	Build web page to allow users to edit existing products	5
	F27	Build web page to allow users to remove products	5

Tasks F35 and F36 can be estimated through analogy, considering they are enhancements to the two Reports and Analytics tasks accomplished during Sprint 1, each taking 8 points to complete. Since these tasks build upon existing functionality, we propose an estimate of 5 points per task.

Epic	No.	Item	Estimation
Reports and Analytics	F35	Improve Inventory Reporting Function	5
	F36	Improve Sales Reporting Function	5

Estimating by Size Comparison:

Task F37 is a testing task, which, in comparison to previous tasks, is relatively smaller in size and complexity. Since the web pages have already been developed during Sprint 1, the process of writing tests should be straightforward. However, it's worth noting that setting up the testing environment for Unit testing may require some time. Therefore, we are estimating 3 points for writing unit tests, 1 point for writing usability testing cases, and 1 point for executing the usability testing cases.

Epic	No.	Item	Estimation
Member Managment Web Page	F37	Write Test Cases for the Member Managment Web Pages - Write Unit Tests - Write Usability Testing Scenarios - Execute Usability Testing Cases	5 = 3 1 1

Task F16 involves the development of a prediction algorithm, representing a task of moderate to high complexity. Consequently, we have assigned it an estimated effort of 8 story points. In the case of implementing search functionality with filters (F31), this task also presents a high level of complexity, meriting an 8-point estimate. When it comes to creating a dashboard for inventories (F33), it entails the complex task of handling and visualizing a substantial volume of data. In light of this, a 10-point estimation is deemed appropriate to account for the task's size relative to the previous two. In parallel, the creation of a dashboard for users (F34) is anticipated to encompass the management of a substantial amount of user-related data, and therefore, it is also estimated at 10 story points.

These estimations are formulated with consideration for the complexity and size of the tasks, yet it is important to note that they remain approximate and subject to further refinement based on more detailed requirements and team expertise.

Epic	No.	Item	Estimation
Search and Prediction Algorithm	F16	Create a prediction algorithm	8
	F31	Implement search functionality with filters	8
Dashboards	F33	Create Dashboard for Inventories	10
	F34	Create Dashboard for Users	10

Estimating by “experts” / “Delphi” techniques (including Planning Poker):

During our sprint planning, we leveraged the collective expertise of our team members, drawing upon their past experiences and insights. Through comprehensive discussions, we presented the task details, including technical considerations, and utilized the Delphi technique, coupled with Planning Poker, to elicit individual story point estimates from each team member for the three tasks related to Reporting Web Pages (F28, F29, and F30). By aggregating and averaging these estimates, we arrived at a well-informed and consensus-driven assessment of the effort required for each task.

Epic	No.	Item	Estimation
Reporting Web Pages	F28	Build web page to allow for sales data import via CSV	5
	F29	Build web page to allow for data export to CSV	5
	F30	Build web page for viewing sales reports and analytics	5

Overall Sprint Tasks and Estimations

Ranking	Layer	Epic	No.	Item	Estimated Points
1	Front-end	Sales Records Management Web Pages	F22	Build web page to allow users to add new sales records	5
2			F23	Build web page to allow users to edit existing sales records	5
3			F24	Build web page to allow users to remove sales records	5
4		Products Managment Web Pages	F25	Build web page to allow users to add new products	5
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13			F34	Create Dashboard for Users	10
14		Reports and Analytics	F35	Improve Inventory Reporting Function	5
15			F36	Improve Sales Reporting Function	5
16		Member Managment Web Page	F37	Write Test Cases for the Member Managment Web Pages	5

*1 point = 1 hour