Bantu PicknPay Shopping List User Story Mapping

I. SPRINT 1

The user stories that the development team implemented in the first release is a website with the functionality of selling textbooks to students. The site allows students to create a list of textbooks that they would like to buy and is also able to allow the sharing of a created textbook list with other users. Figure 2 shows the story board which was implemented for release 1.

A. User Journey

The original user story map is intended for two types of students, namely, freshman students and senior students. Within these two categories are two subset types of students that are classified as senior sponsored and senior self-funding, freshman sponsored and freshman self-funding students. This makes a total of four users. This is depicted in figure 1
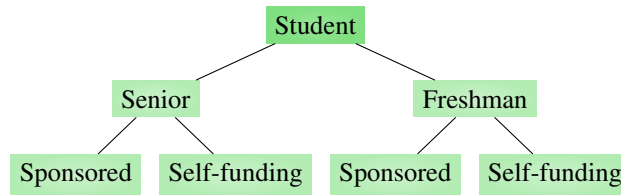

Fig. 1: Original Users

The user stories varied from a student who is certain of the textbooks they would like to buy and is not concerned about the quality of the textbooks, to a student who has a limited budget and doesn't know exactly which textbooks to purchase. Table I is an overview of the scrum board produced for the development tasks relating to the story board seen in figure 1.

TABLE I: Sprint 1 Summary

Sprint #1	Difficulty (Out of 5)	Value (Out of 5)	Developer Responsible
Browse all textbooks functionality	1	4	N. Ndlovu
Generate quotation	2	3	E. Mamba
Remove books from list	3	5	Z. Malinga
Checkout list	2	5	E. Mamba
User login (Using Google API)	4	5	S. Lekoba & N. Ndlovu

The particular details to the stories is not contained in this document as the development team altered the story map and user journey stories through collaborative work and the use of Agile methodologies. This is evident from the second to the last release. The ideas, discussions and decisions implemented in the development sprints and sprint review meetings can be seen in section II.
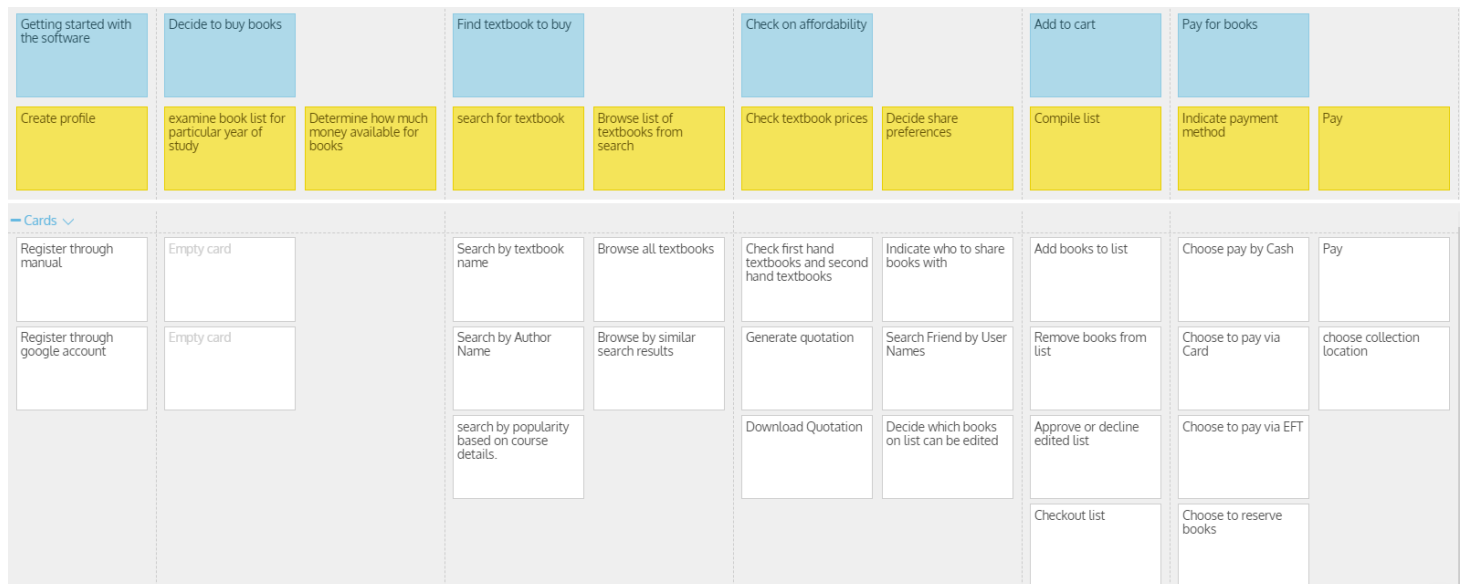

Fig. 2: Original story map

II. RELEASE AND SPRINT REVIEW

In the first sprint, and subsequently, the first release, the developers were able to complete the the allocated sprint tasks, culminating a total velocity of 13 which can be seen on the Trello board shown in figure 3. The sprint review meeting produced the following realisations and decisions moving forward to the next sprint and release:

- The 5 user stories implemented in the first sprint, according to the development team, still count towards the needed total of 20 sprints for the entire project.
- The task and time management of the development team needs to be improved in order to avoid rushed releases.
- The development team went out of scope in their functionality.
- The development team needed to come up with a new approach.
- An new user journey and user story map needed to be developed to be in line with the project scope and requirements.
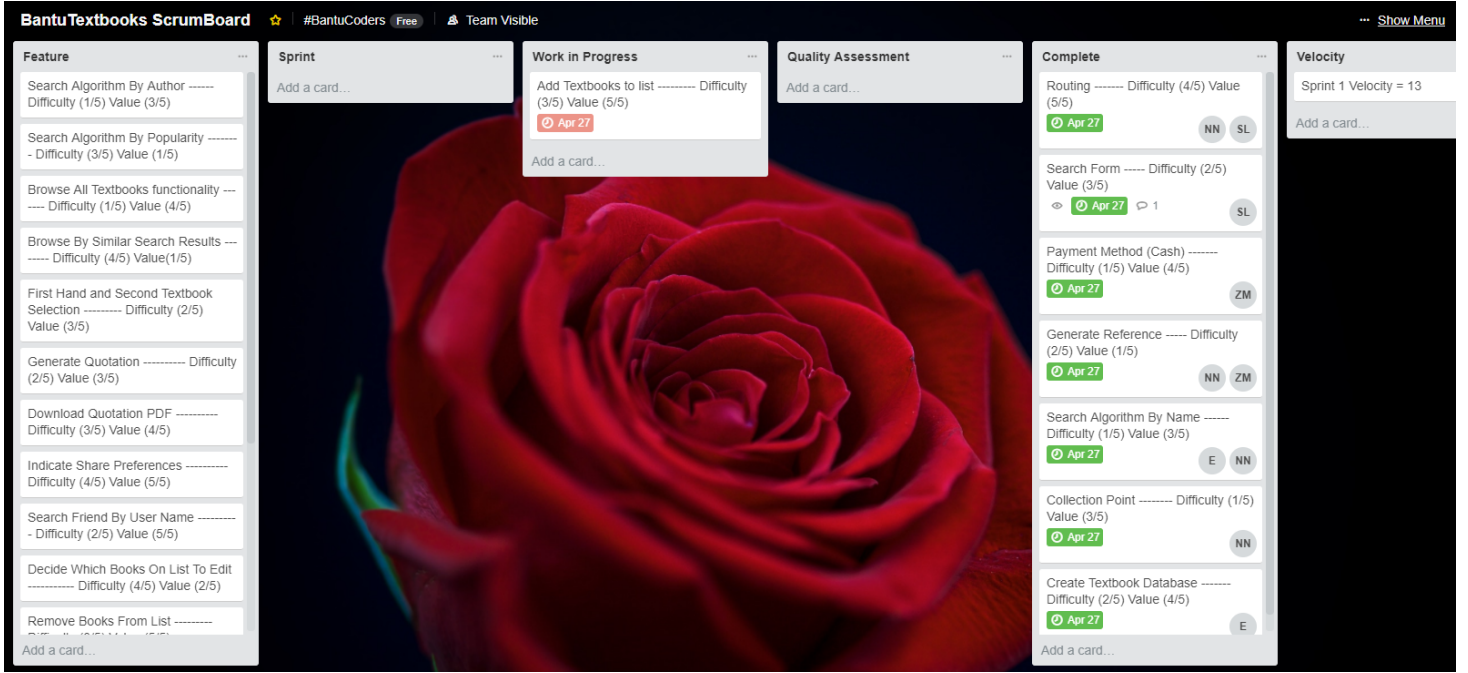

Fig. 3: First sprint conclusion scrum board

III. SPRINT 2

The current user story map can be seen in figure 4. The stories were reduced for the second sprint due to the reasons of having to change the original sprint; this has been clearly stated above.

A. User Journey

The story map for the second sprint changed to from selling textbooks to selling groceries. Since most of the functionality was implemented in sprint one, it was used as a platform to change the release for sprint two. Sprint two would essentially be the first sprint release since everything was removed from the first sprint release and altered.

B. Sprint Outline

From the newly developed user story map, 17 development tasks are identified. Seven tasks are placed into the sprint for that particular week. This setup can be seen in table IV.

TABLE II: Sprint 2 Summary

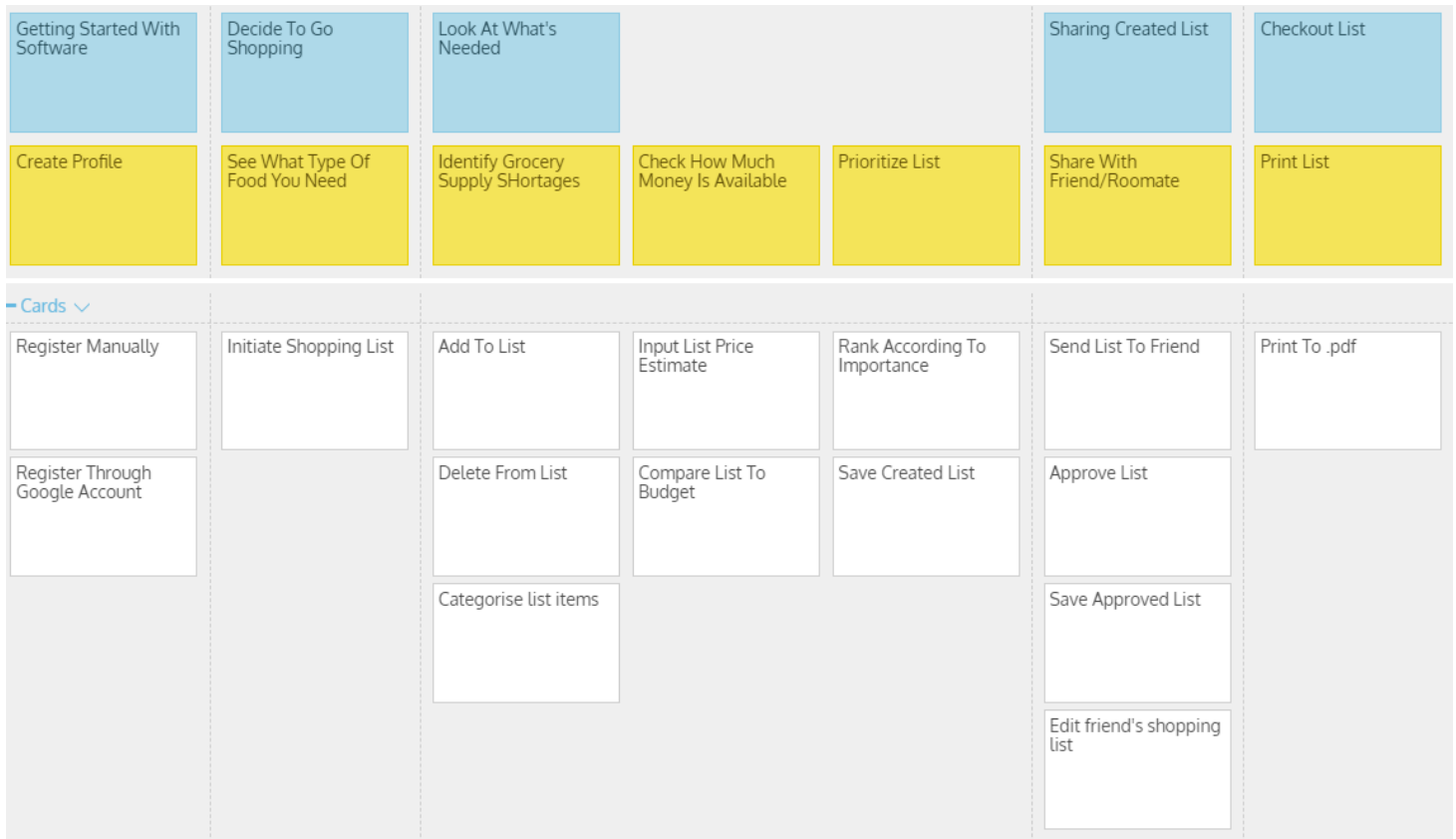| Sprint #1	Difficulty (Out of 5)	Value (Out of 5)	Developer Responsible
Create shopping list	3	5	S. Lekoba
Save created list	3	5	E. Mamba
Input an estimated budget	1	1	Z. Malinga
Input price estimate	1	1	Z. Malinga
Compare list to budget	1	1	E. Mamba
Print final list to .pdf	3	3	N. Ndlovu

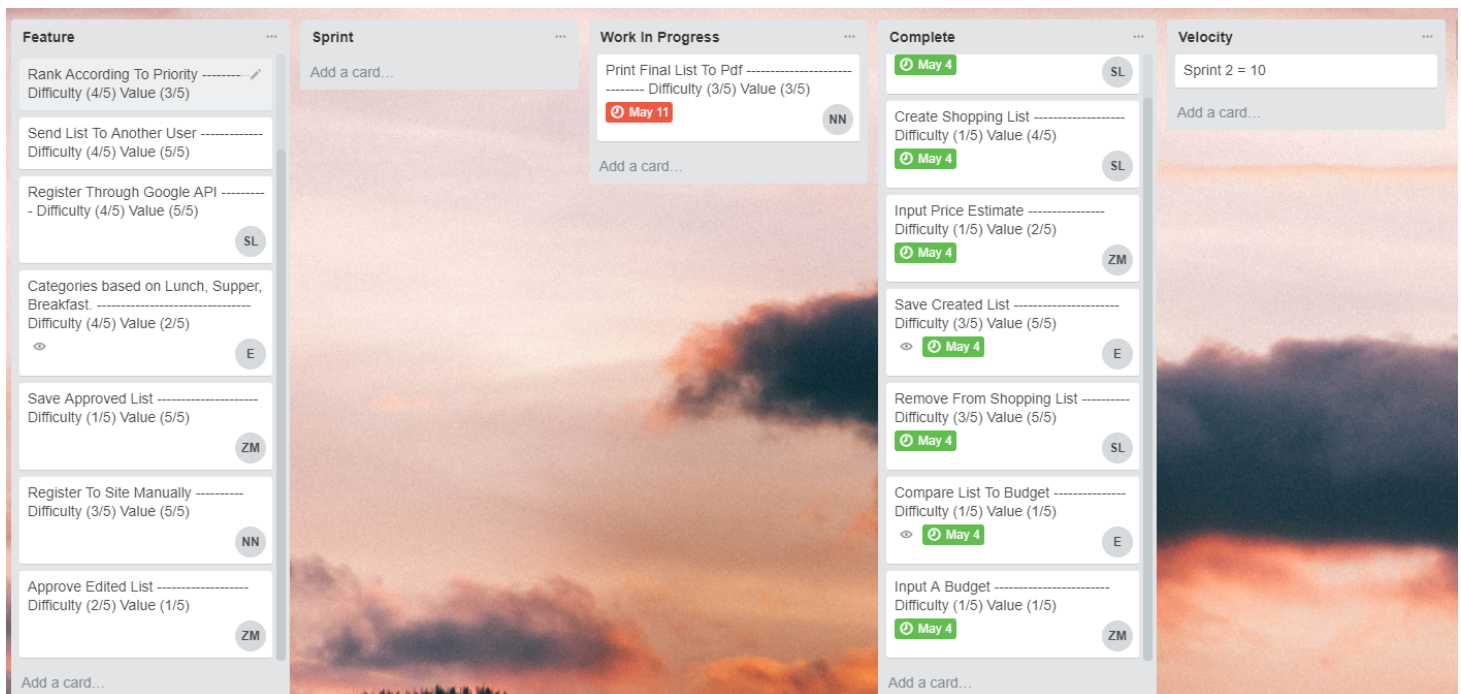Fig. 4: Current user story map

Fig. 5: Scrum Board: Second Sprint

IV. RELEASE AND SPRINT REVIEW

For the second sprint/release, (after the developers started again and removed everything related to the first sprint), the developers implemented the basic web page that allowed users to add and remove items from the list also displaying the added and removed elements. The following provides the conclusion of the scrum release.

- Sprint velocity was less than the velocity of the first sprint; this requires urgent attention.
- More acceptance tests were to be done for both front end and back end
- For the sprint, less product value was produced, this needed to be addressed and improved.

V. SPRINT 3

The users stories for the third sprint are shown in the story map in figure 4. There was a consistency in the stories from the second sprint to the third sprint but the velocity of sprint 3 increased.

A. User Journey

The story map from the second to third sprint remained with the notion of selling groceries. At this point of the user journey, the addition of a log in page to be able to access the website was included.

B. Sprint Outline

The details of the third sprint can be seen in the table below and the presented scrum board.

TABLE III: Sprint 3 Summary

Sprint #3	Difficulty (Out of 5)	Value (Out of 5)	Developer Responsible
Create log in page	3	5	Z. Malinga
Link log in page to website	3	5	Z. Malinga
Create sessional log in page	5	5	N. Ndlovu
Create registration option	5	5	S. Lekoba
Documentation	1	2	E. Mamba
Total Price Function	1	1	E. Mamba

VI. RELEASE AND SPRINT REVIEW

Initially, there was a log in page included that was made to be the home page which could connect to the shopping website by entering a user name and password. There was a registration button option which was not fully functional. The log in page was then tweaked to have a registration option which would only allow for a user to access the shopping website only when they have registered. Also, the log in page was tweaked to allow for more than one person to access it.

VII. SPRINT 4

The fourth sprint was the last sprint for the project. It involved incroporating Bootstrap and adding images to the website to make it more visually appreciating.

VIII. RELEASE AND SPRINT REVIEW

A. User Journey

The fourth and final sprint was the most important stretch for the project. It included the sharing of shopping lists among users and made full use of the Google API. It was the final and complete website for the project.

B. Sprint Outline

The story details of the fourth sprint correlates to the one in figure 4. The scrum board and table below present a summary of the sprints for the final release version.

TABLE IV: Sprint 4 Summary

Sprint #3	Difficulty (Out of 5)	Value (Out of 5)	Developer Responsible
Sharing List	5	5	N. Ndlovu
Save For Later Use	3	5	S. Lekoba
Choose friends to share	3	5	N. Ndlovu
Documentation	5	5	E.Mamba and Z.Malinga