

Case study: FOSCO

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Sprint no. 3

Summarising the results of sprint 1:

In sprint 1, I planned to implement the connect and disconnect mechanism of the game “FOSCO “ which acts as an initial stage of the game to proceed. As for selecting the card from the playing hand, I have to make some changes for the player to see the list of cards so that the selection process would more reasonable. I have implemented the list of cards in the program but I understand that the list should be displayed to the user and I will I have just created a working outline of the game so that reasonable changes can be made consecutively. Furthermore, in the second sprint, I am planning to proceed with the other functionalities of the game so that the required changes can be made in logic and rules later point in time when the general outline of the game is working. The considered burnup chart shows steady progress but the various game rules are yet to be incorporated. Looking forward to completing it in the consecutive period within the result.

Summarising the results of sprint 2:

In sprint 2, players are confirmed based on the number of players given as informed. When the input of several players is given and the players are asked to start the game randomly, but as per the game it should be done based on the number of spades between the players which can be surely achieved with further effort.

Case-study: Get Stuck, Sprint #3:

1. Sprint goal statement:

The main aim of the game “FOSCO” is partially fulfilled based on the requirements. The numbers of players are given as input to produce the round of play. The target score is mentioned in the program source code so it's going to be the same no matter how many players are going to join. The round is set up between the players which are done by dealing with the cards. When the cards are dealt between the players in the round the cards are analysed accordingly and the score is calculated, so the cards are analysed. For the check of busting in each round and also for declaring the value for each round the logic should be updated for further improvement. The calculated game score is shown for each of the players consecutively after each of the dealings and is displayed until the end but when any of the players wish to exit the game the winner of the game is announced according to the play.

1 (i). Product backlog

ID	Title	As a ...	I want to ...	So that ...	Priority	Sprint	Status
1	Connect to server	Player	Connect to the FOSCO game	I can play a game of FOSCO successfully	Must	1	Completed
2	Disconnect from game	Player	Disconnect from the FOSCO game	I can exit the game	Must	1	completed
3	Input a player name	Player	Input players name	Other players can refer to me by name	Could	3	To be updated
4	Choose the number of players	Player	I can choose the number of players	I can see the number of the opponent	Could	3	Completed
5	Set number of rounds/target score	Player	Specify the number of rounds to play (for a game)	I can play till the game ends (Mentioned in the program)	Could	3	Completed
6	Select a card from playing hand	Player	Select a card from the playing hand	I can follow the game rules to win the count	Must	1	To be updated
7	Deal a card	Game host server	Deal cards to set up a playing hand for the player	I allow players to plan accordingly with the dealt cards	Must	1	Completed
8	Match players	Game host server	Match or connect two players to the game.	I can conduct a targeted game between them	Must	2	To be updated
9	Set up around	Game host server	Set up a round of play	I can start around between two players	Must	3	Completed
10	Analyse cards dealt by the players	Game host service	Analyse the cards dealt by the player	I can determine if that player is busted as a result the scores are displayed	Must	3	Completed
11	Initially indicate who needs to start first	Game host service	Initially indicate who needs to start based on the number of spades	I can present them visually to the players	Must	2	To be updated
12	For each count check if busted/ running out of suit	Game host service	check if the player is busted after each count	I can incorporate the card dealing rules	Must	3	To be updated
13	Announce the value of each round	Game host service	Calculate the count after each deal for both players	I can add them to the total game score	Must	3	To be updated
14	Calculate game score	Game host service	Calculate the game score for both players	I can be able to announce the game-winner to the players.	Must	3	Completed
15	Start game service	Administrator	Start the game (host) service	Clients can connect to register/play the game	Must	TBC	To be continued

16	Close game service	Administrator	Close down the game (host) service	I can make updates whilst offline	Must	TBC	To be continued
17	Monitor game service	Administrator	Monitor the game service	I can view all running games and wait for clients	Could	TBC	To be continued

2. Sprint backlog with story points

Backlog item	Story points	Developer
User story: Choose the number of players	10	Madhumitha
User story: Set number of rounds/target score	10	Madhumitha
User story: Set up around	10	Madhumitha
User story: Analyse cards dealt by the players	10	Madhumitha
User story: For each count check if busted/ running out of suit	4	Madhumitha
User story: Announce the value of each round	10	Madhumitha
User story: Calculate game score	10	Madhumitha
Support features	10	
Task: implement core classes	8	Madhumitha
Task: testing activities	2	Madhumitha

SUMMARY OF THE PROGRESS:

Initially, the project was planned based on the end-users demand and the end project has almost satisfied the requirements. The end product can start the game, close the game, choose several players so that all the players can be given a chance to play in the game. The name of the players was planned to be taken as input but in the project, the players are mentioned with the numbers which makes a difference between the players. Several players can be chosen which can accept a maximum of 4 players wherein the maximum target is mentioned in the program itself. The player can randomly select the card from the set of cards that belongs to him. As per the planned project, the player must have the ability to select the card and deal with the card but the end product allows the player to blindly select the card without knowing what card it is. So as per my view, this will also make the game interesting. The random card which is dealt by the player is analysed for calculating the score and check if the player is busted or not so that the score can be calculated accordingly. The end product just asks the players to deal with the card in a normal order but the expected game has to request the player to deal with the card that has maximum spades this needs to be updated accordingly. The total value of each round should be calculated and announced but instead, the total score for each round between the players is announced so that the final winner can be determined. So that's how the game works accordingly in the console. The game needs to be worked under several sprints to achieve the exact requirements.

The burn-up chart represents the number of requirements fulfilled in each of the sprints in regular intervals

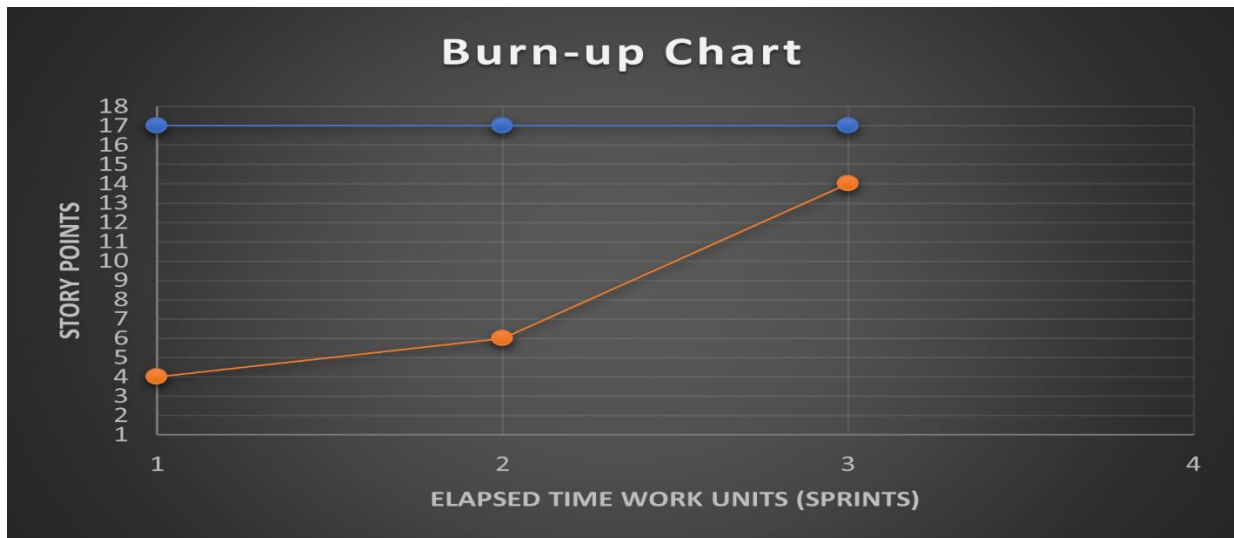


Figure 1 Burn-up chart

MANAGEMENT OF THE PLANNED PROJECT:

Sprint	Work units	Items from the sprint backlog	Duration (2021)	
			From	To
0	Planning and understanding the users requirements in the game	Document specification	April 15	May 1
1	Implementing the story points as a working game	Connect to server	May 1	May 14
		Disconnect from game		
		Select a card from playing hand		
		Deal a card		
2	Continuation from sprint 1, trying to update the changes given by the end-user and trying to implementing the exact core logic.	Match players	May 14	June 11
		Initially indicate who needs to start first		
3	Continuation of sprint 3, updating the requirements and trying to complete the entire game based on end-users requirements	Input a player name	June 11	July 9
		Choose the number of players		
		Set number of rounds/target score		
		Set up around		
		Analyse cards dealt by the players		
		For each count check if busted/ running out of suit		
		Announce the value of each round		
		Calculate game score		

TESTING IN PRODUCT DEVELOPMENT:

Unit testing is the basic method of testing that is followed in this product development process wherein each of the new requirements is tested whether it can complete the desired task successfully or not.

Test cases are those which concentrates on requirements outcomes. It's a way to understand whether the end-user can be satisfied with the required outcome.

Environmental testing is a testing procedure to test the product in various environments whether it can be supported in a different environment. here is tested only in the eclipse console working in windows 10.

Regression testing is critical testing as in when the requirements change with the new features alternatively the old features are affected. So when I had to make changes in the requirements I faced a lot of difficulties making sure that the old features are not affected. A lot of effort needs to be put in while facing regression testing.

Automated testing, I used to check the product when the developer creates new functionality making sure that the old functionality is not messed up.

Usability testing is a process wherein the product is checked regularly to ensure whether the end-user is satisfied with the product outcome. This product was checked regularly with the end-user with regular breaks.

Test-driven development tests first approach wherein the unit tests are written first before writing the functional code. This is of great use wherein it guides the code in the right direction as per the developer. If the test fails, the required changes are made alternatively.