

# Sprint Backlog

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## Phase 1

User stories			Tasks	Estimate time	Day 1	Day 2	Day 3
Power up	power up the bomber man when absorbed by the bomber man	make the bomber man stronger	Code different types of power up	0.5	0.5	0	0
			Code different effects of power up	1	1	0	0
Game object	know when I collide with another objects	react accordingly	Code the general abstract class for all game objects	1	1	0	0
			Code the collision detection method	1	1	1	0
			Test the collision detection method	1	1	1	0
Bomber man	move around the map	find and defeat other monsters and players	Code the border detection method	1	1	0	0
			Code the movement detection method	2	2	2	0
			Code the movement method	1	1	4	0
			Test the border detection method	0.5	0.5	0	0
			Test the movement detection method	2	2	2	0
			Test the movement method	2	2	2	0
Player	use the arrow keys	move the bomber man around the map	Code the key listener method	1	1	0	0
			Test the key listener method	1	1	0	0
			Sync the key input with the bomber man's move method	2	2	1	0
Player	play a game that runs smoothly	enjoy the game	Set up the main game loop	5			
Set up Git			Code the main game loop				

## Phase 2

User Stories			Task	Estimate Time	Day 1	Day 2	Day 3
Bomber man	plant bombs	kill monsters, destroy walls and defeat other players	Code the conversion from frame coordinates to grid coordinates	0.5	0.5	0	0
			Code the conversion from grid coordinates to frame coordinates	0.5	0.5	0	0
			Test the conversion from frame coordinates to grid coordinates	0.5	0.5	0	0
			Test the conversion from grid coordinates to frame coordinates	0.5	0.5	0	0
			Code the snap to grid method	0.5	0.5	0	0
			Test snap to grid method	1	1	1	0
			Code the plant bomb method	2	2	1	0
Bomber man	power up	be stronger and kill monsters faster and defeat other players	Code detect power up when moving	2	1	0	0
Power up	power up the bomber man in term of speed, bomb limit or explosion size	make the bomber man stronger	Code power up method when collide with the player	2	2	1	0
Map	have walls randomly	limit monsters' and bomber man's movement.	Code the method to add objects to a map	0.5	0.5	0	0
			Code the method to remove objects from a map	0.5	0.5	0	0
			Code the method which spawn walls randomly on the map	2	2	1	0
Bomb	wait a short amount of time before explode	give the bomber man time to hide	Code the timer for bomb	0.5	0.5	0	0
Bomb	explode	destroy other objects	Code the explosion object	1	1	0	0
			Code the method to create the explosion	1	1	2	0
			Code the when killed method of wall and monsters	2	2	0	0

Monster	move around the map	kill the player easier	Code the movement of monsters	1	1	2	0
Wall	block the movement of other objects	limit their movements and make the game more challenging	Code the wall object	1	1	0	0
Game designer	have background music	boost the player's experience when playing the game	Background sound playing	0.25	0.25	0	0
Game designer	animate game objects	boost the player's experience when playing the game	Player 1 has graphical representation	3	3	1	0
			Wall has graphical representation	0.25	0.25	0	0
			Monster has graphical representation	1	1	0	0

### Phase 3

User story			Task	Estimate Time	Day 1	Day 2	Day 3	Day 4
Power up	be hidden in a random wall	make it harder for the player to find me	Code the number of power up on map depends on number of players	1	1	0	0	0
			Assign power up to random walls	1	1	0	0	0
Player	play against other people online	test my skill against real people.	Set up the server and client class	12	12	8	4	1
			Code the static network class to handle networking	8	8	6	10	6
			Test the connection between server and client, same computer	2	2	2	2	0
			Test the connect between server and client, different network	1	1	1	1	0
			Encode map to string to send	2	2	2	2	0
			Code the packets to send over the network	2	2	3	2	1
			Integrate sending data over network to game objects	4	4	3	2	0
			Create "shadow objects" of real objects to sync all the games	6	6	4	3	4

			Code the planting bombs in multiplayer	2	2	2	2	0
			Sync monster movements over the network	2	2	2	2	2
			Sync player movements over the network	2	2	2	2	2
Online player	host a game online	challenge other people	Create hosting method and logic in network class	1	1	0	0	0
Online player	connect to a game hosted online	play against the challenger	Create client method and logic in the network class	1	1	0	0	0
			Test connection to a host game	1	1	1	0	0

#### Phase 4

User Stories			Task	Estimated time	Day 1	Day 2	Day 3	Day 4
Power up	be hidden in a random wall	make it harder for the player to find me		2	2	0	0	0
Online player	limit the number of players to maximum 3 players	have a better chance of winning and have a balance game	Code the server to block connections	2	2	1	0	0
			Doesn't start multiplayer with only one player	2	2	2	0	0
Host	be the only person to start the game	have absolute authority wither or not to start the game.	Block the clients from starting the game	1	1	0	0	0
			Make the server signal the game start over the network	2	2	0	0	0
			Send ID to clients when game start	1	1	1	1	0
Wall	block the explosion	protect behind objects in the game	Code the explosion to stop when collide with wall	1	1	2	0	0
Monster	kill the player when I touch them	defeat the player	Code the when killed function of player	1	1	0	0	0
Map	spawn monsters occasionally	defeat the player easier	Create the spawn monster method	1	1	1	1	0

			Add additional functions to spawn monster smarter	2	2	1	0	0
Online player	know how many people are playing with me	decide on my strategies	Code the server to detect number of connections	1	1	1	1	0
			Send number over the network	1	1	1	1	0
Player	play against other people online	test my skill against real people.	Set up the server and client class	1	1	1	0	0
			Code the static network class to handle networking	6	6	4	2	0
			Code the packets to send over the network	1	1	1	0	0
			Create "shadow objects" of real objects to sync all the games	4	4	4	0	0
			Sync monster movements over the network	2	2	2	2	0
			Sync player movements over the network	2	2	2	2	0
Online player	start the game at different locations on the map with my enemies	collect more power before meeting him	Spawn player smarter	2	2	2	0	0
Player	chose between single player and multiplayer	chose how I want to play the game	Create the game UI	5	5	2	0	0
			Detect keyboard input to change options	1	1	0	0	0
Online player	enter the IP address of the host	connect to the host player	Detect keyboard input to input numbers					
			Test the keyboard input					
			Modify the clients to take IP as input	0.5	0.5	0	0	0
Game designer	animate game objects	make the game look livelier and more interesting	Bomb and explosion have graphical representation	3	3	0	0	0

Game designer	sound effects	boost the player's experience when playing the game	Add sound effects for bomb	0.25	0.25	0	0	0
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## Phase 5

User Stories			Task	Estimated time	Day 1	Day 2	Day 3	Day 4	Day 5
Player	be able to win or lose	have a purpose to play the game	Set up winning condition for single player	1	1	0	0	0	0
			Set up winning condition for multiplayer	3	1	0	0	0	0
			Code the vanish method for player	2	2	2	0	0	0
			Code the vanish method for "shadow" player	2	2	2	0	0	0
Debug			Play and test the game, fix all the bugs	25	15	12	10	8	0
Player	know the number of monsters currently alive	know how many more I have to kill							
Game designer	animate game objects	make the game look livelier and more interesting	Make an in-game side bar	1	1	0	0	0	0
			Make graphical representation for other players	2	2	0	0	0	0
			Add an endgame screen	0.25	0.25	0	0	0	0
			Add a wait screen for multiplayer	1	1	0	0	0	0
Game designer	have background music and sound effects	boost the player's experience when playing the game	Add sound effect for vanishing and winning/losing	0.25	0.25	0	0	0	0
			Add sound effect for starting game	0.15	0.15	0	0	0	0