	Tasks	Members
Checkpoint 1	Assign roles to members	Jasmin Cho and Mohsin Yaqub
	Appoint project manager	Mohsin Yaqub
	Create Github repository	Jasmin Cho
	Add TA's to repository	Jasmin Cho
	Create product backlog	Jasmin Cho and Mohsin Yaqub
	Create burndown chart	Mohsin Yaqub
	Create first sprint backlog	Jasmin Cho/Mohsin Yaqub
Sprint 1	Define Program Manager (main class)	Jasmin Cho
	Create board state variable (game start, game end)	Jasmin Cho
	Call to other functions through PvP	Jasmin Cho
	Call to other functions through PvAI	Ethan Wright
	Create validity check on inputs/moves	Ethan Wright
	Define Player Class	Mohsin Yaqub/Jasmin Cho
	Create Player variables	Mohsin Yaqub/Jasmin Cho
	Create Player functions	Mohsin Yaqub/Jasmin Cho
	Define Marble Class	Jasmin Cho
	Create Marble variables	Jasmin Cho
	Create Marble functions	Jasmin Cho
	Define Board Class	Jasmin Cho
	Create Board variables	Jasmin Cho
	Create Board functions	Jasmin Cho
Sprint 2	Define AI Class	Mohsin Yaqub
(make more detailed or move around if neces	Create AI variables	Mohsin Yaqub
	Varying number of seeds in the holes on each side	Jasmin Cho
	Varying number of holes in each side	Jasmin Cho
	Randomizing the distribution of seeds	Jasmin Cho
	Pie Rule	Jasmin Cho
	Create AI functions	Mohsin Yaqub
	Create winner state	Jasmin Cho
	Create loser state	Jasmin Cho
	Set up GUI interface (just get it started)	Jasmin Cho

	Create interesting graphics	Jasmin Cho
	Add welcome screen with graphics	Jasmin Cho
	User input for player name	Jasmin Cho
	Button to see top score PvP	Jasmin Cho
	Button to see top score PvAI	Ethan Wright
	Button to start new PvP game	Ethan Wright
	Button to start new PvAI game	Ethan Wright
	Add Game screen (mancala board)	Jasmin Cho
	Add real time score for Player 1	Ethan Wright
	Add real time score for Player 2	Jasmin Cho
	Add real time score for AI	Mohsin Yaqub
	Add timer textfield	Jasmin Cho
	Add timer logic	Jasmin Cho
Sprint 3 (same as above)	Win text for Player/AI	Jasmin Cho
	Lose text for Player/AI	Jasmin Cho
	Button to leave game back to home screen	Ethan Wright
	Button to quit	Mohsin Yaqub
	Client Server Model for AI (make this more detailed p	Jasmin Cho
	Implement winner state	Jasmin Cho
	Implement loser state	Mohsin Yaqub
	Implement player 1 vs player 2	Jasmin Cho
	Implement functions for game	Ethan Wright
	Check functionality of functions	Jasmin Cho
	Testing for tasks	Mohsin Yaqub/Ethan/Jasmin Ch

	Tasks	Member
Checkpoint 1	Assign roles to members	Jasmin Cho and Mohsin Yaqub
	Appoint project manager	Mohsin Yaqub
	Create Github repository	Jasmin Cho
	Add TA's to repository	Jasmin Cho
	Create product backlog	Jasmin Cho and Mohsin Yaqub
	Create burndown chart	Mohsin Yaqub
	Create first sprint backlog	Jasmin Cho/Mohsin Yaqub
	Submit everything	Mohsin Yaqub
Sprint 1 Expected:	Define Program Manager (main class)	Mohsin Yaqub
	Create board state variable (game start, game end)	Mohsin yaqub
	Call to other functions through PvP	Ethan
	Call to other functions through PvAI	Ethan
	Create validity check on inputs/moves	Ethan
	Define Player Class	Ethan
	Create Player variables	Mohsin Yaqub
	Create Player functions	Jasmin Cho
	Define Marble Class	Ethan
	Create Marble variables	Mohsin Yaqub
	Create Marble functions	Jasmin Cho
	Define Board Class	Jasmin Cho
	Create Board variables	Jasmin Cho
	Create Board functions	Jasmin Cho
	Update Burndown chart	Mohsin Yaqub
	Updte sprint backlog	Mohsin Yaqub
Sprint 1 Actual:	Defined Player player class	Mohsin Yaqub/Jasmin Cho
	Created player variables	Mohsin Yaqub/Jasmin Cho
	Create Player functions	Mohsin Yaqub/Jasmin Cho
	Define Kalah Class	Jasmin Cho
	Create Kalah Variables	Jasmin Cho
	Create Player instances	Jasmin Cho

	Define functions to control houses	Jasmin Cho
	Define functions to control store	Jasmin Cho
	Define functions to control game logic	Jasmin Cho
	Create board state variable (game start, game end)	Jasmin Cho
	Call to other functions through PvP	Jasmin Cho
	Define Program Manager (main class)	Jasmin Cho
	Create Help Text Window	Mohsin Yaqub
	Create vector organization of game board/marbles	Ethan Wright
	Create score keeping class	Ethan Wright
	Create method of keeping track of marbles	Ethan Wright
	Update burndown chart	Mohsin Yaqub
	Update sprint backlog	Mohsin Yaqub
Sprint 2 Expected:	Define AI Class	Mohsin Yaqub
(make more detailed or move around if r	Create AI variables	Mohsin Yaqub
	Create AI functions	Mohsin Yaqub
	Create winner state	Jasmin Cho
	Create loser state	Jasmin Cho
	Set up GUI interface (just get it started)	Jasmin Cho
	Create interesting graphics	Jasmin Cho
	Add welcome screen with graphics	Jasmin Cho
	User input for player name	Jasmin Cho
	Button to see top score PvP	Jasmin Cho
	Button to see top score PvAI	Ethan Wright
	Button to start new PvP game	Ethan Wright
	Button to start new PvAI game	Ethan Wright
	Add Game screen (mancala board)	Jasmin Cho
Sprint 2 Actual:	Varying number of seeds in the holes on each side	Jasmin Cho
	Varying number of holes in each side	Jasmin Cho
	Randomizing the distribution of seeds	Jasmin Cho
	Define AI Class	Mohsin Yaqub
	Create AI Variables	Mohsin Yaqub

	Create AI Functions	Mohsin Yaqub
	Added Dropdown to select number of houses	Jasmin Cho
	Added Dropdown to select number of seeds	Jasmin Cho
	Added checkbox to randomize or not	Jasmin Cho
	Added checkbox for pie rule	Jasmin Cho
	Defined GameOptions class to hold states	Jasmin Cho
	Added Board scenes for different nums of houses	Jasmin Cho
	Added time limit	Jasmin Cho
	Added time left label	Jasmin Cho
	Update Sprint backlog	Mohsin Yaqub
	Update Sprint Burndown Chart	Mohsin Yaqub
Sprint 3 Expected:	Win text for Player/AI	Jasmin Cho
	Lose text for Player/AI	Jasmin Cho
	Button to leave game back to home screen	Ethan Wright
	Button to quit	Mohsin Yaqub
	Client Server Model for AI (make this more detailed pls)	Jasmin Cho
	Implement winner state	Jasmin Cho
	Implement loser state	Mohsin Yaqub
	Implement player 1 vs player 2	Jasmin Cho
	Implement functions for game	Ethan Wright
	Check functionality of functions	Jasmin Cho
	Testing for tasks	Mohsin Yaqub/Ethan/Jasmin Cho
	Implementing GUI	Jasmine Cho
	Implenting AI	Mohsin Yaqub
	Implementing Server	Ethan Wright
	Pie Rule	Jasmin Cho
	Add real time score for Player 1	Ethan Wright
	Add real time score for Player 2	Jasmin Cho
	Add real time score for AI	Mohsin Yaqub
	Put game together	Team
Sprint 3 Actual		

	Lose text for Player/AI	Jasmin Cho
	Button to leave game back to home screen	Jasmin Cho
	Button to quit	Jasmin Cho
	Button to leave game back to home screen	Jasmin Cho
	Client Server Model for AI (make this more detailed pls)	Jasmin Cho
	Implement winner state	Jasmin Cho
	Implement loser state	Jasmin Cho
	Implement player 1 vs player 2	Jasmin Cho
	Implement functions for game	Jasmin Cho
	Check functionality of functions	Jasmin Cho
	Implementing GUI	Jasmine Cho
	Implenting AI	Mohsin Yaqub/Jasmin Cho
	Implementing Server	Jasmin Cho
	Pie Rule	Jasmin Cho
	Add real time score for Player 1	Jasmin Cho
	Add real time score for Player 2	Jasmin Cho
	Add real time score for AI	Mohsin Yaqub/Jasmin Cho
	Put game together	Team

Task	Time Expected(From Begginning to End)	Actual Time Spent(From Beggining to End)
Sprint 1(Including Scrum Meetings)	200	185
Mid-Sprint 1	170	170
Sprint 2(including Scrum Meetings)	140	140
Mid-Sprint 2	110	120
Sprint 3	80	100
Mid-Sprint 3(including Scrum Meetings)	50	70
Final	0	40