Criterion B: Record of tasks

Task number	Planned action	Planned outcome	Time estimated	Target completion date	Criterion
1	To decide on project, I played Luzhanqi with my dad after dinner.	Realized there was no available computerized version of luzhanqi	2 hrs	Oct. 25th	A
2	Finding a client	My dad offered to be my client after I suggested the idea.	1 hrs	Oct. 27th	A
3	Rules of the game	Discussed with my dad the rules in the placement of pieces and the movement of pieces	2 hrs	Oct. 27th	A
4	Meeting with supervisor to discuss the feasibility of the solution and its functionalities	Suggested that the game can also have a feature where a player can undo a move. Java was selected as the programming software and basic design was sketched.	1 hr	Nov. 5th	A
5	Define criteria for success	Spoken with my dad to identify characteristics of a successful luzhanqi game	2 hrs	Nov. 20th	A
6	Write up planning	Wrote the document for criterion A using the rubric for the IB internal assessment. Document was edited several times due to word count issues.	3 hrs	Dec. 15th	A
7	Complete interface design	Tested the screen coordinates for each post on the board. Created a design for the display of the board and the pieces. Board images and piece icons were resized by paint. The x and y coordinates of every column and row were recorded and made constants.	6 hrs	Dec. 18th	B
8	Complete	Recorded the process of the game. Beginning with setting up the	3 hrs	Dec. 23rd	B

	algorithmic design	pieces for each side, then taking turns until the flag was captured. The each change the user makes needs to be processed and correctly displayed on the screen. To keep opponent pieces undisclosed, a cover which is a coloured rectangle that covered the piece rank was used.			
9	Began coding the objects	Coded piece first and then board. Realized that each piece did not need to know its location, because that was the role of the board. Each piece, once created cannot have its rank changed.	4 hrs	Dec. 23rd	B,C
10	Coded the game	Began with using Swing to display all images properly layered. Then coded the setup process and turn taking. The undo functionality was implemented last. Had some trouble, in particular with moving pieces on the railroad, with changes not correctly displayed. However, it was resolved by the programming of the displayChanges() method, that removes the image of any eliminated piece. The program was also tested several times and I had to trace the methods to troubleshoot the problem with display.	15 hrs	Jan. 25th	C
11	Solution tested by dad	Found multiple glitches in the placement of pieces as well as the movement of pieces. Player 2 can also see the placement of player 1's pieces as it is still displayed on the console. The placement landmines were last amongst all the pieces to be placed. This result in the game being stuck if the player had already filled the last 2 rows with pieces, therefore the landmines had nowhere to go. Pieces were programmed at first to move diagonally in all positions of the board, which is incorrectly implemented.	2 hrs	Jan. 26th	C,D

12	Implemented changes and fixed glitches from the client's suggestions	The landmines are now pieces at index 1-3 of the array, so that the for loop allows the placement of flags first (index 0) and then the landmines before the rest of the pieces. Also fixed the movement of pieces diagonally, pieces now move according to the lines drawn between posts on the board. A clearScreen() method was implemented to clear the screen after each player is done placing the pieces	5 hrs	Jan. 28th	C,D
13	Ideas for further improvement and possible extensions. Developed from previous conversations with my dad. Write up of Criterion E	This piece was written last and developed after the program has been programmed and working visually. Some suggestions were made to make players' experience better and make the turn taking and setup process more convenient.	4 hrs	Feb. 1st	E
14	Consultation with Supervisor and fixing changes	Identify problems with cover page and video. The video quality seems to have reduced once it was played on the school computer. The video also included unnecessary typing and was excessively long. This needed to be fixed. An HTML cover page also needed to be implemented.	4 hrs	Feb 25th	D, E