# The Maze Wars

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# About the Game

The game is based on two Marvel Characters leading other marvel characters in a Maze War.

The characters moves in maze towards their enemy and kills them. Their target is to kill the enemy king. The player controls the king in the maze.

Both the teams get time of 10 seconds to make their base camp and deploy the king, and 120 seconds of war to defeat the opponent.

If the time is over and both the kings are alive then the result is declared on the basis of the team scores.

# Welcome Screen

- The game starts with the welcome screen

- The player needs to enter their username and select one of the two options, host the game or join the game

- Due to simplicity and limitations of sockets, the game for now works only on localhost

- The game needs one host player and one player who will join the host

- The host player needs to click on the host before the other player who is going to join the game

- The player who wants to join the game needs to select the join button only after the host has selected the host button
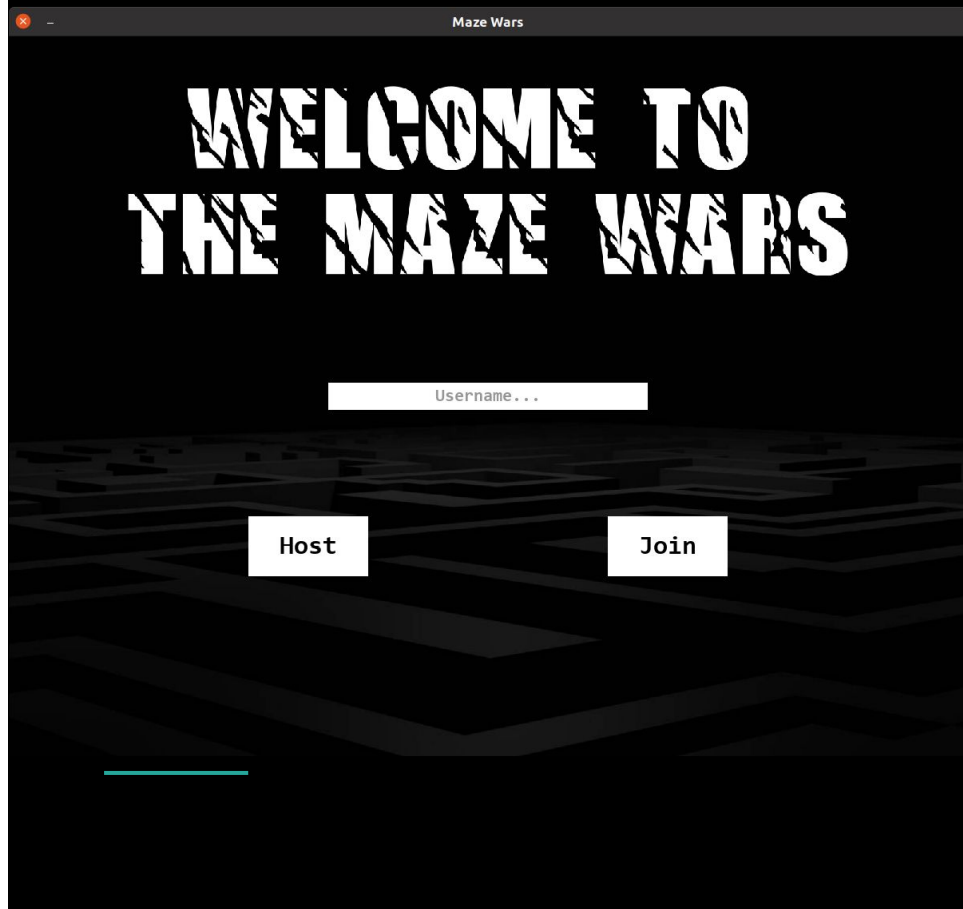
# Code check

- The host window will show a random code

- The player who is joining needs to input the code in the given text box

- As soon as the correct code is entered in the text box, both the players will proceed to the next stage of team selection



Host

Join

# Team Selection

- In this stage, the players will have 10 options available to select their team

- Use left and right arrow keys to hover through different teams and Enter key to select a team

- The team details are given to select your best team

- If the opponent selects a team before you, then that team will not be available for your selection

- You can select any other team you like

- A player cannot change their selected team
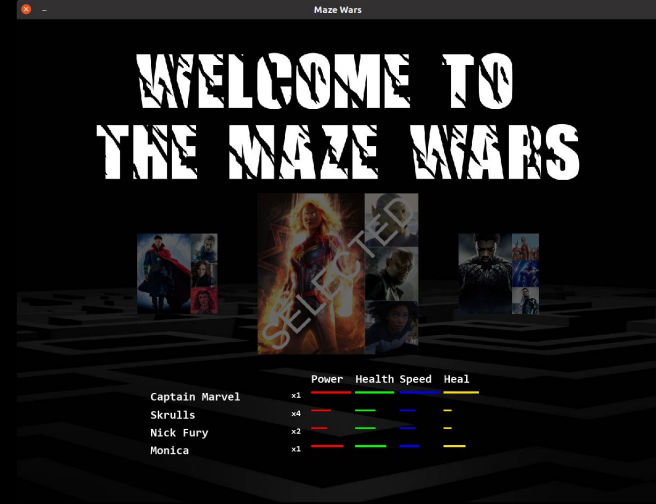
# Team

- Every team has 3 Members and 1 King

- The King leads the way

- Characters are distributed on the basis of their levels.

- The player has total 4 Level-1 characters, 2 Level-2 character and 1 Level-3 character apart from the king in the maze during the war

- Every character have their different power, health, speed, and heal capacity. These are shown at the time of team selection

- Once the team is selected by both the payers, the game goes to next stage

# Abilities

- Every character have its different strengths

- Some are fast, some are good healers, some are powerful, etc.

- Choose your team on the basis of these strengths and the number of characters available at the war. For example, there are 4 Level-1 characters available, so you might want to prefer number of available characters than their abilities

- Power is directly proportional to the damage done by the character. Health is proportional to the damage a player might take from the enemy. Speed denotes the speed in which the character moves in the maze. And heal is proportional to the healing rate of the character



| | | Power | Health | Speed | Heal |
|---|---|---|---|---|---|
| Doctor Strange | x1 | | | | |
| Quicksilver | x4 | | | | |
| Natasha | x2 | | | | |
| Wanda | x1 | | | | |

# The Maze

- Everytime a new random maze is generated by the game

- The maze has 13x13 size

- The walls can be broken by the characters and can be used to make a new path in the maze

- The maze walls have some health which is taken into account by the characters to find their next path to the enemy

# The Game

- The game starts with deploying of king

- Only when both kings are deployed, the players can deploy their other characters. To deploy any character, select the character from the bottom left corner, and then click on the maze where you want to deploy it

- The number of characters available to deploy are shown at the bottom left corner of the game window

- In the figure at right, you can see that the player can deploy x4 Cyclops, x2 Storm and x1 Wolverine apart from the King Jean

- Once all the available characters of certain level are deployed the player cannot deploy anymore characters from that level

# Deploying King

- The king can only be deployed in a particular region which is show by a green overlay once the character of king is selected

- There are 10 seconds available to deploy the king in the maze

- If king is not deployed by the player in the maze, then the game will automatically deploy it at the bottom right corner of the maze and the war will start

- Once both the kings are deployed, the war will begin

- The players have 120 seconds to conquer

# Deploying

- Once both the kings are in the maze, the players can select their characters and deploy them in the maze for the war

- This should be done strategically and considering the maze structures and enemy position in the maze

- The characters can only be deployed in a confined region around the king in the maze

- This region is shown by a green overlay on the maze

# Attacking

- Characters can attack other enemy characters or break walls

- A character can only attack an enemy if the enemy is either in some adjacent cell of the maze and there is no wall between them, or the enemy is on the same cell as the character

- Only the walls adjacent to the current cell of the character can be broken. Once the wall is broken, the path from there will get opened and anyone can travel through that path

- In this figure you can see, Wolverine and Cyclops breaking wall, and Dora Milaje attacking Storm

- The health of characters and maze are shown at their top using a colored bar. Color goes from green to red as the health decreases.

# King control

- The player will control the king throughout the war

- The king can move in the maze, attack on enemy, and break the walls

- To move the king in some direction use arrow keys. If there is any wall in some direction then the king will not move

- If the player uses shift + arrow key, then the king will only turn in that direction, but will not start moving

- To attack with the king, use "A" key on the keyboard

- Move the king strategically because you can only deploy your characters near it

# Scoring

- A character dies when its health decreases to 0

- A character also heals slowly with time

- The score points are given using the character's power, health, speed and healing capacity as parameters

- Killing a more powerful character will score you more points

- At the end of 120 seconds, if both the kings are alive then the game result is decided by these points

# Playing again

- Once the result is declared the players can play again against each other

- The players are allowed to select their teams again

- Once both players selects to play again, the players will reach the stage of team selection and the game will start again

# Exiting the game

- Any player can exit the game anytime by closing the game

- If any player exits the game, the other user will receive a message that the player has exited the game

- Once a player has exited the game, they need to connect again to play

- To connect again, restart the game and follow the steps from the welcome screen

- In the figure "a" is the username of the other player

# Sound

There is a background music during the game and war, and some sound effects

To mute/unmute such sounds and music, press shift + m on the keyboard

# Caution

- In cases when you see any glitches or errors in the game, try reinstalling the game using "make again" command, most of the time glitches occur due to installation error while linking more than one object files
- Another source of glitches is the networking, but since we are in the localhost, these glitches are very rare
- The game (for now) works only on localhost

# Final Tips and Conclusion

- Try having fun with the game. Use strategies and maze paths to determine where to deploy your characters
- The main strategy or turning point of the game lies in deploying characters and moving king in the maze
- Try buying time for the king in case it is injured, so that the king heals until no one is near it
- Try considering the tradeoff between killing the king and scoring the points, one can have more points even after losing due to death of the king
- Better the character, the more score points it worths
- Sacrifices may work sometimes

# Thanks to

- Marvel for making this assignment more fun
- [GALACTICGOD](GALACTICGOD) for building character sprites of marvel characters
- [https://mixkit.co/](https://mixkit.co/) for sound effects
- So many websites for images for marvel characters
- [Stranger Things](Stranger Things) for background music
- Clash of Clans for war music