***ZENSE HACKATHON 2k21***

***Report***

*TEAM NAME***: Mutant Ninja Bots**

*PROJECT NAME****:* MARTIAN MAYHEM!**

*TEAM MEMBERS:* DEWANSHI DEWAN and OISHI SETH

*Idea:*

We wanted to make a cool game and wanted everyone to enjoy playing it. Both of us are very interested in space and existence of life in another planet. So, we came up with MARTIAN MAYHEM! Here you can sabotage the extra terrestrial UFOs from your Spaceship by firing bullets. Beware: If you collide with UFOs you lose your Lives! At 0 lives the Aliens have invaded your homebase(Spaceship).

*How we implemented:*

Learnt basics of JS and Canvas throughout then after thinking a lot about the idea came to the conclusion of making MARTIAN MAYHEM!. We setup a player, created enemy object(UFO), bullet object and made various functions on how they interact with each other. Examples: Both enemy and bullet gets decimated on detecting collision through a function defined and game is lost when a certain number of UFOs collide with our main player.

*Problems faced and solutions:*

* Player kept on getting out of frame on continuously pressing arrow keys.

By making if-else blocks for x and y coordinates we set the value of both coordinates to 0 if the next position had coordinates <=0.

* Our Repl hanged because of an infinite loop that ran because of wrong syntax.

Corrected it.

* The enemy objects were following a straight path and very predictable trajectory.

Made a variable for rotation of enemy objects and used the random method.

*What we learnt:*

This project gave us a lot of exposure to Javascript and HTML. Time management and working in a team collaboratively is a vital skill, which this project has taught us. Somehow understood that the best way to learn a programming language is to implement it.