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**CS99 – final game project**

**Programming Concepts**

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TEAM NAME:

GAME NAME:

NAME: MINKI CHO, MINJAE YU

PROGRAMING LANGUAGE: Java Script(p5.js)

GAME DESCRIPTION: It is Zombie Defense Game  
The game requires players and AI survivors to survive until rescue teams come, destroying the approaching zombies. Since there is not much food and supplies left, you, the main character, and a military-turned-leader, must choose one victim every day when you survive, so everything depends on your choice.

URL: [Rudy-Castan-DigiPen-Teaching/CS099\_game\_project\_minjae\_yu\_minki\_cho: Make 2d game with p5.js (github.com)](https://github.com/Rudy-Castan-DigiPen-Teaching/CS099_game_project_minjae_yu_minki_cho)

**Work Done**

**Shapes**

When the mouse cursor is on the ai, it is used as a decoration of expressions to see the value of the AI.

   if ( ai\_1.x - 30 < mouseX && mouseX < ai\_1.x + 30 && ai\_1.y - 30 < mouseY && mouseY < ai\_1.y + 30 )

        {

            fill("white");

            rect(ai\_1.x + 50, ai\_1.y-10,250,50);

. . .

**Colors**

It was mainly used to change the color of text. I used it for more noticeable.

                textSize( 20 );

                fill( "black" );

                text( "Choose one survivor to sacrifice to survive your next day.", width / 3, height / 2 );

**Variables**

There so many variables that we used.

These variables are for Sketch.js.

This line\_size is to set line’s size value which zombie came out it is useful for set the gap between the gap.

//wall

let line\_size = 100

This variable is for wall class. It is for draw wall on canvas.

let game\_wall;

//ai

This variable is for wall class.

let ai\_1, ai\_2, ai\_3, ai\_4;

//game\_mode

These variables are for game mode. I used if statement and printout the canvas for these values.

let game\_mode;

const MAIN\_MENU = 0;

const GAME\_START = 1;

const CREDIT = 2;

const INTERMISSION = 3;

const GAME\_OVER = 4;

const HOW\_TO\_PLAY = 5;

const STORY = 6;

//bullet\_zombie\_distance

I have to know the distance for collision with zombie and bullets.

let x\_dis;

let y\_dis;

let distance;

//score

This variable is for score.

let score = 0;

//damage

This variable is for gun damage. If there are a collisions zombie’s health will decrease with this value.

const gun\_damage = 1; //originally 1

//preload hit sound

This variable is for preload sound.

let hit\_sound;

//background

This variables are for preload background images.

let bg;

let bg1;

let bg2;

//left bullet

let left\_bullet\_img;

//ai\_bullet

let ai\_bullets = [];

let ai\_bullet\_1 = new Array;

let ai\_bullet\_2 = new Array;

let ai\_bullet\_3 = new Array;

let ai\_bullet\_4 = new Array;

//check for it is okay for next day.

let ready\_for\_day1 = false;

let ready\_for\_day2 = false;

let ready\_for\_day3 = false;

let ready\_for\_day4 = false;

let ready\_for\_day5 = false;

let ready\_for\_day\_final = false;

//frameCount works when game\_mode is GAME\_START from 0

let count\_start = false;

//player gun magazine

let player\_gun\_bullet = 7;

//day1,2,3,4 img

let day1\_img, day2\_img, day3\_img, day4\_img, day5\_img;

//check AI is picked or not once

let ai\_picked = false;

let check\_keyIsPressed = false;

//This is for ai\_bullet

let ai\_1\_isShoot = true;

let ai\_2\_isShoot = true;

let ai\_3\_isShoot = true;

let ai\_4\_isShoot = true;

//text\_box image

let textBox\_img, textBox2\_img, textBox3\_img, textBox4\_img;

let scoreBox\_img;

let ai\_picked\_img;

let will\_img;

**Conditional Statements**

**Loops**

**Functions**

**Classes**

**Arrays**

**Notes**