INTERNSHIP TEKSTEDIA 2023/2024

TCHOUAMOU VALDECK

SNAKE GAME REPORT

Project Report: Snake Game TEKSTEDIA

1. Introduction:

The Snake Game is a classic and popular arcade game that originated in the late 1970s. In this project I have developed my own version of the Snake Game using HTML CSS and JavaScript. The objective of the game is for the player to control a snake navigate it around the screen and eat food to grow longer while avoiding collisions with the walls or its own body.

2. Technologies Used:

The following technologies were utilized to develop the Snake Game:

- HTML: Used for creating the structure and layout of the game.

- CSS: Utilized for styling the game interface and providing visual enhancements.

- JavaScript: Implemented to add dynamics and functionality to the game.

3. Project Features:

This Snake Game project includes the following features:

- Snake Movement: The snake is controlled by the player using arrow keys allowing it to move up down left or right on the game board.

- Food Generation: Random food items are generated on the screen that the snake can eat to increase its length.

- Collision Detection: The game detects collisions with the walls or the snake's own body resulting in game over.

- Game Over: When the snake collides with any part of its own body or any parts of the walls of the gameboard.

4. Implementation:

To develop the Snake Game the following steps were undertaken:

4.1 HTML Structure:

- A container element was created to hold the game board and other game elements.

- The game board was defined as a grid with individual cells representing each position on the board.

4.2 CSS Styling:

- The container and game board were styled to provide an appealing visual interface.

- The snake and food were styled using appropriate colors and shapes.

4.3 JavaScript Functionality:

- A Snake object was defined to handle the movement growth and collision of the snake.

- Event listeners were added to detect arrow key presses for controlling the snake's movement.

- Random food generation logic was implemented using “Math.random” ensuring that food never spawns on the snake's body.

- Collision detection functions were created to check for collisions with the walls or the snake itself.

- Game over functionality was added to inform the user he failed.

5. Conclusion:

In conclusion I have successfully

developed a Snake Game using HTML CSS and JavaScript. The game provides a mindful gaming experience while including modern web technologies. It features smooth snake movement dynamic food generation collision detection score tracking and a game over screen. This project demonstrates the versatility and capabilities of the web development stack for creating interactive and engaging games.