S2308-CPSC-8710 Found.of Software Engineering (002-91712)

Web Game - Team Project

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Abstract:

Whack-a-Mole is a timeless and enjoyable arcade game that involves the task of hitting mischievous moles as they pop out from their burrows.

I. Introduction

Whack-a-Mole stands as a cherished vintage arcade classic that has held the fascination of players across generations. In this enduring game, participants find themselves tasked with swiftly smacking endearing yet troublesome moles as they emerge from their burrows. To achieve a high score within a time limit, a blend of speed and accuracy is the key. Loved by both arcade enthusiasts and casual gamers, Whack-a-Mole not only tests your reflexes but also guarantees amusement and fun. Whether in traditional arcade settings or modern digital adaptations, the thrill of Whack-a-Mole endures, offering an engaging and entertaining experience.

II.   Rules to play the game

- Click or tap on the moles as they appear in the holes.
- Score points by whacking as many moles as you can.
- Try to achieve the highest score, and challenge your friends to beat it.
- Open the game, and you'll be presented with holes, beautifully designed like the muddy areas from which moles pop out.
- Click on the "Let's go" button on top to start playing the game.
- There are 3 levels in the game, with an end game button to stop playing the game, present right next to the Let's go button.
- After the completion of 3rd level, the game automatically stops.
- Whenever you whack the moles by clicking on them, your score increases, and you can view it on top of the Let's go button.
- whack as many as you can to increase your score.
- Your recent previous game score can be viewed below the holes.
- For each of the levels, the background colour changes for distinctiveness and to indicate transition from one level to another.

III. Technology Stack

HTML: The whack-a-Mole game can be played online using HTML, which improves the entire gameplay experience.

CSS: Using CSS (Cascading Style Sheets), the whack-a-mole game can be styled and made more appealing graphically. It is in charge of deciding how the game will look, including how game objects like moles, backgrounds, and buttons will be made. The game will be more aesthetically pleasing and user-friendly for players as a result of CSS's responsive design, which makes sure that it adjusts to different screen sizes and devices.

JavaScript: It is the foundation of the whack-a-mole game, offering functionality and interactivity.
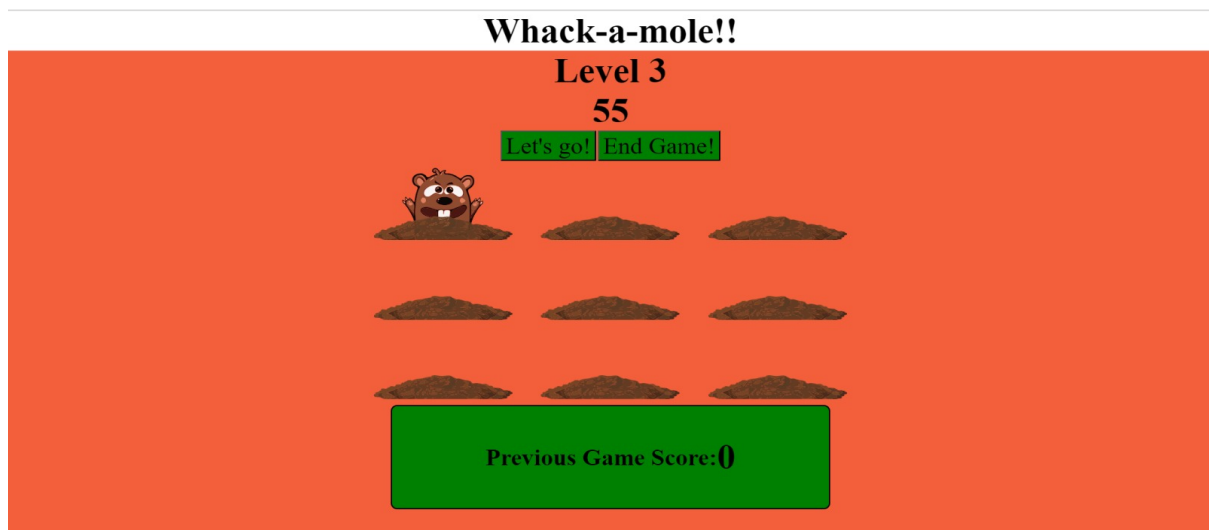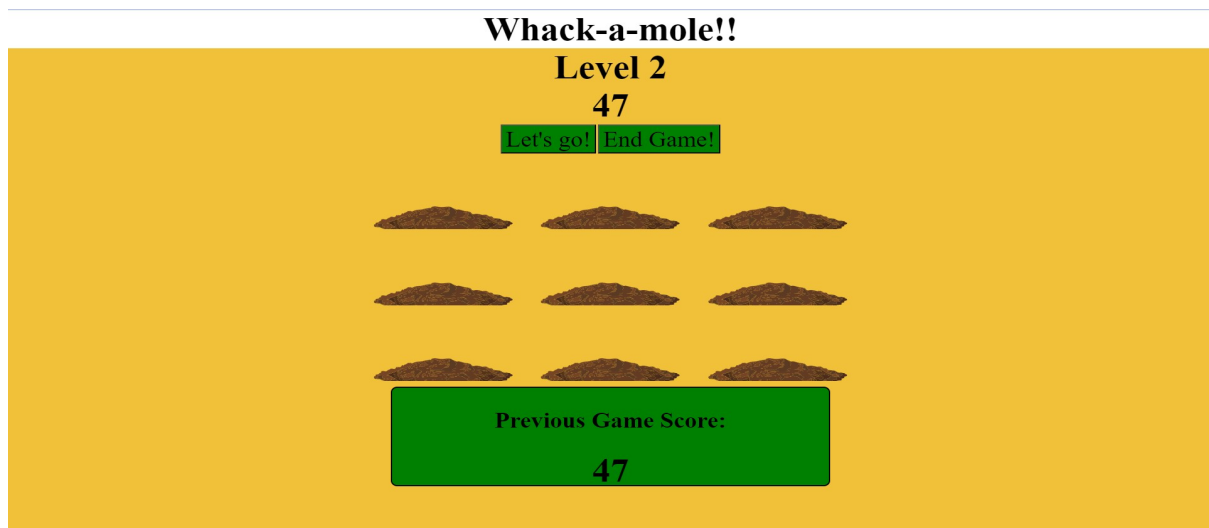
IV. Setup and Installation

Clone this repository:

git clonehttps://github.com/girishraja1508/whack_a_mole-project.git,to view our source code and open the index.html file in any browser you like.

Open https://girishraja1508.github.io/whack_a_mole-project/ to play the game.

V. Screenshots of Output

Whack-a-mole!!
Level 1
11
Let's go! End Game!

Previous Game Score:**0**

Whack-a-mole!!
Level 2
47
Let's go! End Game!

Previous Game Score:

47

Whack-a-mole!!
Level 3
55
Let's go! End Game!

Previous Game Score:**0**

VI. Reflection

In a 1.5-month game development project following the Scrum methodology, our journey began with a crucial step: the prioritisation of game features and tasks. Assembling a tight-knit Scrum team, inclusive of all team members, was our next move. This cross-functional team was carefully constructed to tackle the challenges ahead.

We divided our project into short one or two-week work periods, which is a key part of our project management method. In these periods, we carefully looked at our to-do list and focused on the most important tasks. Every day, we had quick meetings where the team talked about what they were doing and if they had any problems. At the end of each work period, we were excited to show what we had done in a meeting. We often had a version of the game that people could play. After that, we had another meeting to talk about what went well and how we could do better in the next work period.

Our whack-a-mole game, at its core, is a harmonious fusion of HTML, CSS, and JavaScript. We used HTML for the basic structure of our online game, and we added .svg images to make it look better. These images are neatly organised in our project folder. CSS helped us make the game look good and work on different devices. JavaScript was essential for making the game interactive. However, we faced challenges in making the game the right level of difficulty, designing attractive graphics, creating an easy-to-use interface, and ensuring the game runs smoothly. In the end, what made our game successful was its simple gameplay, gradual difficulty, and the ability to listen to player feedback and improve. We are extremely happy about introducing the different levels in our game with distinctive background colours when there is a transition from one level to another. Introducing the end game button was also a significant change we made based on our user feedback while conducting user testing.

Instead of a fixed time limit, we thought of introducing a random game mechanic. For example, the game could end when the player misses a certain number of moles in a row. We thought of proposing this idea for future purposes to make our game more attractive. Also, simplicity was key to maintaining our game's allure. Rigorous testing across a variety of devices was crucial for our gameplay. We also discovered the importance of responsiveness to user feedback while making this game. Nonetheless, we encountered some setbacks in our Whack-a-mole game when we tried to add some bomb functions to our code so that users could whack them instead of these regular moles. However, we faced some issues in our code

because the time at which moles appeared was randomly generated. Still, our whack-a-mole journey was filled with creative challenges, triumphant victories, and lessons that will continue to guide us in the world of game development.

In conclusion, the development process for our game project was filled with challenges that proved to be invaluable learning opportunities. Overcoming these obstacles required persistence, creativity, and collaboration. In doing so, we gained skills and knowledge that will no doubt aid us in future projects. Though the road was difficult at times, our team persevered and is extremely proud to have this completed game to show for the effort. The final product represents the culmination of our vision, hard work, teamwork, and commitment to delivering an entertaining and immersive gaming experience to players. We are thrilled to now share it with others and hope they find it as fun and rewarding to play as we found it to create.

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