

MODULE CLIENT

Contents

1. MODULE_CLIENT.docx
2. MODULE_CLIENT_MEDIA.zip

Introduction

People love to play challenging games which require the player's effort to think. Games will be more challenging if there are numbers involved. Nevertheless, a multiplayer game can be more fun if people play it together.

With the support of current sophisticated technology, we can make a game that can be played in a web browser so people can play it across devices. You need to make this game run correctly in the latest version of Google Chrome or Mozilla Firefox.

Description of the project

You need to create a game called Hexaria, a fun multiplayer math puzzle game where the objective is to obtain the most points in a hexagonal board during a game.

This is a 5 hours module in which you will need to create the initial layout of the game and the game functionality using Javascript. You are required to make the game work perfectly in modern browsers without any error.

Hexaria game screen should have these components below:

1. Game title
2. 10x8 hexagon blocks
3. Both players names
4. Both players scores
5. Current hexagon
6. New game button
7. Leaderboard
8. Sort Functionality

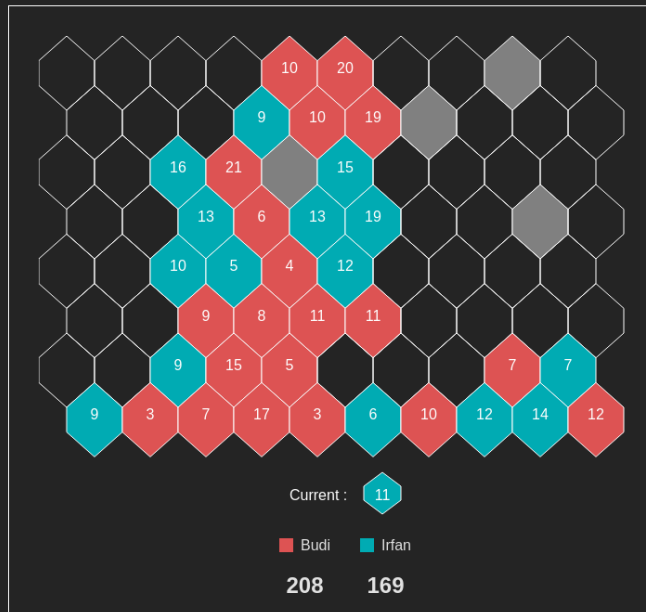
Game functionalities

1. **Show the game** icon as a favicon.
2. **Welcome screen should show** when the page is loaded.
3. **Game instruction should appear** besides the welcome screen.
4. **The game instruction** should appear in an animated way.
5. **Player 1 can choose to compete with** Player 2 or Bot.
6. **Player 1 can start the game** by clicking the start button.
7. **If the user chooses to compete with Player 2**, Player 1 must input the Player 1's name and Player 2's name.
8. **If the user chooses to compete with Bot**, Player 1 doesn't need to input bot's name.
9. **Players 1 can choose a level** in the welcome screen (easy, medium, hard).
10. **The "Play Game" button should be disabled** if the user hasn't filled in their name and hasn't chosen a level.
11. **The game board consists** of a 10x8 hexagon block.
12. **Disabled hexagon will appear in the random hexagon with grayish-color:**
 - a. **4 disabled hexagon** for easy level
 - b. **6 disabled hexagon** for medium level
 - c. **8 disabled hexagon** for hard level
13. **Player 1's color** is red and the other is blue.
14. **Red takes the first turn.** Blue takes turns with red. Player 1 or 2 by clicking an empty hexagon and bot by automatically filling an empty hexagon.
15. **Each turn, a hexagon with a random number (1-20)** can be used by either player to be placed in one of the empty hexagons.
16. **The current turn hexagon should be displayed on the screen** to tell the player what color and number of the hexagon that they will put.
17. **When the player hover one of the empty hexagons**, there will be a placeholder of the current hexagon depending on the current hexagon color and number.
18. **When an empty hexagon is chosen by players**, it will be filled with the current turn hexagon.
19. **Player can take over the opponent's hexagons** if the player placed their hexagon in an adjacent opponent's hexagon with a higher value hexagon than the opponent's hexagon.
20. **Taken over hexagon color** will change based on which player's turn.
21. **When a player places a new hexagon adjacent to an identical color hexagon**, the adjacent hexagon will be added up by 1 number.
22. **When an empty hexagon is hovered by a player or bot**, display moves animation which show what will happen to the adjacent hexagon by showing color changing animation or add up 1 animation.
23. **Bot should imitate human moves by showing 3 steps** before its actual step for at least 1 second. Show any moves animation if a step should show animation.
24. **The score will be calculated by sum of every identical color hexagon** that has been placed by players.
25. **Disabled hexagons** can not be hovered or clicked.
26. **Play the sound effect** given in the media files when the player is placing a new hexagon.

27. **The current score of the red and blue player** should be shown on the screen.
28. **When there is no empty hexagon left**, the game is over.
29. **When the game is over, show a popup** to display the name, score of the winner, and the restart button.
30. **Score will be saved** and displayed in the leaderboard and see the details of the player's game by clicking the details button.
31. **Scores data** should persist in the browser.
32. **Players can sort the leaderboard** by the winner score or by the date in descending order.
33. **The game should be working correctly** in Google Chrome and Mozilla Firefox by opening the index.html file directly.
34. **The game should work** without JavaScript errors and messages shown in the browser console

INSTRUCTION FOR COMPETITORS

1. The media files are available in the ZIP file. You can modify the supplied files and create new media files to ensure the correct functionality and improve the application.
2. The entry file should be '**CLIENT_MODULE/index.html**'
3. You should create additional images for each of the requested resolutions to highlight hidden elements, animations, interactions, or any additional information that will assist in the presentation of the game design.
4. Save the working game to the directory on the server named "**CLIENT_MODULE**". Be sure that your main file is called **index.html**.
5. You are responsible for the time management in your development. If you finalize some tasks you can continue to other tasks.



Leaderboard

Sort by :

Budi vs Irfan
48 - 32 [Detail](#)

Budi vs Irfan
40 - 40 [Detail](#)

Joko vs Jaki
25 - 55 [Detail](#)