



CLIENT SIDE MODULE

CONTENTS

This module has the following files:

1. MODULE_CLIENT_SIDE.docx
2. MODULE_CLIENT_SIDE.pdf
3. MODULE_CLIENT_SIDE_MEDIA.zip

INTRODUCTION

You are asked to develop a game called **World Head Football** using HTML and CSS and develop client-side programming using JavaScript. Some media files are available to you in a zip file. You can create more media and modify anything in the media if you want. Your game needs to be developed in a tablet resolution (1000 x 600 pixels). In bigger resolution, the game must be centered in the screen both horizontally and vertically.

DESCRIPTION OF PROJECTS AND TASKS

This is a module of 4 hours. Your first 2 hours must be used to create the initial layout using HTML/CSS. Your layout should follow the design that you created. The final 2 hours you will create the functionality of the game using JavaScript that allows the game to work correctly in different web browsers.

World Head Football game screen should have meet these requirements below:

1. Player Name
2. Gameboard
3. Player Character
4. Country Flag
5. Total Score
6. Timer
7. Match History



Design and Initial Layout

1. **Develop the initial markup (HTML + CSS) of your game application.** Overall screen must be within 1000 x 600 pixels and centered on the screen.
2. **The design should be delivered in dark mode color.** You are free to choose dark color as long as it has the user convenience.
3. **You are free to decorate** the game screen design as long as it meets the requirements.
4. **The HTML and CSS** code must be valid in the W3C standards for HTML5 and CSS3 rules in accordance with the WCAG and standard ARIA (Accessible Rich Internet Applications Suite)

Game Functionalities

1. **Show game welcome** in the center after pages are loaded.
2. **Players can go to the game** after filling the username field and click the **“Play Game”** button at the bottom of the welcome page.
3. **The “Play Game” button should be disabled** if the user did not input the username.
4. User must choose one from each option:
 - a. one of three levels (easy, medium, hard).
 - b. one of two balls to be used.
 - c. one of many countries as player 1 and one as player 2.
5. **Game instructions should be shown** after the page is loaded.
6. **After clicking the “Instruction”** button, it shows game instructions.
7. **Users can close instructions** after clicking the **“X”** button.
8. **Show countdown for three seconds in the center of screen** after the user clicked the play button before the game started playing.
9. **When the game starts**, the timer will start with time according to level.
 - a. '30 seconds' for easy level
 - b. '20 seconds' for medium level
 - c. '15 seconds' for hard level
10. **The player 1 position** will be on the left and the player 2 will be on the right
11. **The ball will appear** from top to bottom in the middle of 2 characters.
12. **The ball will bounce** when it hits the body part of the character.



13. **Player 1 move the character** using the following buttons:
 - a. "A" to move left
 - b. "W" to jump
 - c. "D" to move right
 - d. "Space" to kick the ball
14. **Player 2 move the character** using the following buttons:
 - a. "Left arrow" to move left
 - b. "Right arrow" to move right
 - c. "Up arrow" to jump
 - d. "Enter" to kick the ball
15. **Items will drop** every 5 seconds.
16. **The items that will drop** are as follows:
 - a. Increase Ball box to increase ball size
 - b. Decrease Ball box to decrease ball size
 - c. Diamond ice to freeze ball in 3 seconds
17. **Item will disappears** after being hit by the ball
18. **Walking animations are showing** as the characters are moving.
19. **The score will be increased** if the player can score a goal against the opponent.
20. **After a goal**, the ball will disappear and reappear from top to bottom in the middle of 2 characters.
21. **Players can pause** the game.
22. Press **Esc** to open the **pause popup**. The game should be in a paused state when opening the popup.
23. Press **Esc** again to **continue** or click the "**continue**" button and the countdown should appear before the game continues.
24. **Game Over** when the timer time is up.
25. **If the time is over but the score is still the same**, then one of the characters must score again, then the game is over.
26. **Show popup after game over** to display the player username, the countries, scores, save match history button, and restart button.
27. **Match results should be saved in the local storage** after the player clicks the "**Save Score**" button.
28. **Players are able to** see the match history after clicking the Match History Button.
29. **Match history can be sorted** by score or last matches based on user choices.
30. **The game needs to work correctly** in Google Chrome.

EXAMPLE

These following images are for example purposes only. You may design your own game layout.



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 'XX_CLIENT_SIDE/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 "XX_CLIENT_SIDE". 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.