Project Report

On

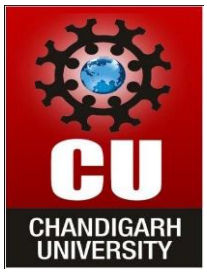
Gaming Website using HTML, CSS, Javascript

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD

OF THE DEGREE OF

BACHELOR OF ENGINEERING

COMPUTER SCIENCE & ENGINEERING



Submitted by:

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Nov 2020

CERTIFICATE

This is to certify that the work embodied in this Project Report entitled **"Gaming website using HTML, CSS, Javascript"** being submitted by **" Simranjeet Kaur "** - UID **" 18BCS3448 "** 5th Semester for partial fulfillment of the requirement for the degree of **" Bachelor of Engineering in Computer Science & Engineering "** discipline in " **Chandigarh University** " during the academic session July-Dec 2020 is a record of bonafide piece of work, carried out by student under my supervision and guidance in the **" Department of Computer Science & Engineering ", Chandigarh University.**

APPROVED & GUIDED BY:

DECLARATION

I "Simranjeet kaur" hereby declare that I have undertaken Summer Training and developed project on Gaming website using HTML, CSS and Javascript during a period from June 2020 to July 2020 in partial fulfillment of requirements for the award of degree of B.E (COMPUTER SCIENCE & ENGINEERING) at CHANDIGARH UNIVERSITY GHARUAN, MOHALI. The work which is being presented in the training report submitted to Department of Computer Science & Engineering at CHANDIGARH UNIVERSITY GHARUAN, MOHALI is an authentic record of training work.

Simranjeet Kaur 18BCS3448

Student details and Signature

APPROVED & GUIDED BY:

The training Viva–Voce Examination of ____ has been held on _____ and accepted.

To our parents, teachers and all the well wishers out there . .

ABSTRACT

The range of games that can be created is on par with desktop and native OS counterparts. With modern Web technologies and a recent browser, it's entirely possible to make stunning, top-notch games for the Web. And we're not talking about simple card games or multiplayer social games that have in the olden days been done using Flash®. We're talking about kick-ass 3D action shooters, RPGs, and more. Thanks to massive performance improvements in JavaScript just-in-time compiler technology and new APIs, you can build games that run in the browser (or on HTML5-powered devices like those based on Firefox OS) without making compromises. HTML5 and JavaScript can be useful in the development of RPGgames and in the creative and simple re-use of code and established techniques. With the use of clean code, I showed ready-made examples and models that a starting out game developer or coder can use. I deliberately left out game engines and frameworks for this exact reason.

Acknowledgement

The work from home internship training gives an opportunity to learn. I had with the coursera team that was a great chance for learning and professional development. Therefore, I consider myself as a very lucky individual as I was provided with an opportunity to be a part of it. I am also grateful for having a chance to meet so many wonderful people and professionals who led me through this internship period. Bearing in mind previous I am using this opportunity to express my deepest gratitude and special thanks to the John Hopkin University for offering this course on coursera took time out to hear my queries, guide and keep me on the correct path and allowing me to carry out my project.

About the Course

Do you realize that the only functionality of a web application that the user directly interacts with is through the web page? Implement it poorly and, to the user, the server-side becomes irrelevant! Today's user expects a lot out of the web page: it has to load fast, expose the desired service, and be comfortable to view on all devices: from desktop computers to tablets and mobile phones.

In this course, we will learn the basic tools that every web page coder needs to know. We will start from the ground up by learning how to implement modern web pages with HTML and CSS. We will then advance to learning how to code our pages such that its components rearrange and resize themselves automatically based on the size of the user's screen. You'll be able to code up a web page that will be just as useful on a mobile phone as on a desktop computer. No "pinch and zoom" required! Last but certainly not least, we will get a thorough introduction to the most ubiquitous, popular, and incredibly powerful language of the web: Javascript. Using Javascript, you will be able to build a fully functional web application that utilizes Ajax to expose server-side functionality and data to the end user.

CONTENTS

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Project Description

1. Introduction

1.1 About

This project is based on html, css and javascript. A web based gaming website for children. A gaming **website where** we play games on computers that are either partially or primarily played through the Internet or any other computer network available. Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript. It plays an important role in developing gaming websites. Most commonly enjoyed games are cheese, tic tac toe, snake game etc.

1.2Approach

1.2.1 HTML

What I had to take in mind prior to starting the project was accessibility issues and web standards. I had written a strict XHTML file that contains two sections - one list () section for the flag buttons and another () for the modification buttons. One major concern of web accessibility is the use of images.It is considered best practice to add “alt” and “title” attributes for users who cannot distinct images. For example the image of the German flag has a title “Deutsch” and an alt attribute set to “german flag”. The lang attribute is also set as english (lang=”en”) in order to inform the browser of the default human language of the script, which is essential for the proper reading of the web page by certain technologies for the disabled.

1.2.2 Style/ CSS

The main styling is stored in an external spreadsheet, although the HTML DOM style object has also been used to change some settings while the JavaScript is being loaded. For example the Save button for the edit module has set visibility 8 to “hidden” in the external stylesheet, but the property changes to “visible” when the edit button is clicked to avoid potential confusion. Another method I have used to change properties inside JS is the jQuery .css() method. I have found it to be effective in changing background and border properties of objects.

1.2.3 JavaScript

All functionality of the modules has been programmed in JavaScript, including jQuery and AJAX. jQuery is a fast and small JavaScript library that offers many useful features that make event handling among other things much simpler with an easy-to-use API that works across a multitude of browsers. AJAX, though not another programming language or library, is a way of using existing standards. It is the art of exchanging data with a server and updating parts of a web page, without the need to reload the entire web page.

1.3 Software and Hardware Requirement

Hardware Requirements

- Processor: Minimum 1 GHz; Recommended 2GHz or more.
- Ethernet connection (LAN) OR a wireless adapter (Wi-Fi)

- Hard Drive: Minimum 32 GB; Recommended 64 GB or more.
- Memory (RAM): Minimum 1 GB; Recommended 4 GB or above.
- Sound card w/speakers.
- Some classes require a camera and microphone.

Software Requirements

- Choosing a Basic Text or HTML Editor HTML editors recognize code and are able to identify coding errors before you launch the file. They recognize and accommodate other coding languages such as CSS, PHP, and JavaScript.
- Web Browsers Websites can look different from browser to browser, so testing your web pages to make sure they look and function as intended is crucial. Chrome, Firefox, Safari (Mac), Opera, and Edge (Windows) are the most popular browsers.
- Graphics Editor The type of graphics editor you need depends on your website. Adobe Photoshop is the gold standard, but you might not need that much power—plus, you might need a vector graphics program for logo and illustration work. A few graphics editors to look at for basic web development include.
- FTP Client You need an FTP (file transfer protocol) client to transfer your HTML files and supporting images and graphics to your web server. FTP is available via the command line in Windows, Macintosh, and Linux, but a dedicated FTP client is much easier to use.

2. TRAINING WORK UNDERTAKEN

Implementation is the process of building the web according to its design. A web implementor creates hypertext markup language (HTML), Common Gateway Interface (CGI) programs, and/or Java scripts and/or applets.

The implementation process resembles software development because it involves using a specific syntax for encoding web structures or a programming language in a formal language in computer files.

2.1 Snake game

we will use the HTML canvas tag for developing this game, with Javascript code controlling the gameplay and the visuals of the game like the snake. There are number of steps follows:

Step 1: Gather All the Needs! : We need some supplies to make this game before:

- A Computer
- A Web Browser installed and updated

- A Text Editor (You can use Notepad but i am using Komodo Edit)
- Basic Javascript & HTML,CSS Knowledge
- Some imagination, time & patience time

Step 2: Check Your System! : You need to enable JavaScript for this project to work, to enable this follow these steps:

1. Click the Chrome menu in the top right hand corner of your browser
2. Select Settings
3. Click Show advanced settings Under the "Privacy" section, click the Content settings button.
4. Click Show advanced settings Under the "Privacy" section, click the Content settings button. In the "Javascript" section, select "Allow all sites to run JavaScript (recommended)"

Step 3: Setup the Files : You need to edit your text editor (notepad or any other) and make a file named snake.html. Open this file in the code editor and in the browser and we are ready to code now!

Step 4: Creating the Canvas We are going to start coding, lets begin:First we will make a canvas for the game from the below code:

```
<head>
  <meta charset="utf-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Game category</title>

  <!-- Google Fonts -->
  <link href='http://fonts.googleapis.com/css?family=Titillium+Web:400,200,300,700,600' rel='stylesheet' type='text/css'>
  <link href='http://fonts.googleapis.com/css?family=Roboto+Condensed:400,700,300' rel='stylesheet' type='text/css'>
  <link href='http://fonts.googleapis.com/css?family=Raleway:400,100' rel='stylesheet' type='text/css'>

  <!-- Bootstrap -->
  <link rel="stylesheet" href="css/bootstrap.min.css">

  <!-- Font Awesome -->
  <link rel="stylesheet" href="css/font-awesome.min.css">

  <!-- Custom CSS -->
  <link rel="stylesheet" href="css/owl.carousel.css">
  <link rel="stylesheet" href="style.css">
  <link rel="stylesheet" href="css/responsive.css">

  <!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media queries -->
  <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
  <!--[if lt IE 9]>
    <script src="https://oss.maxcdn.com/html5shiv/3.7.2/html5shiv.min.js"></script>
    <script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>
  <![endif]-->
</head>
<body>
```

Step 5: Give the Canvas a Background Color and a Border To make our canvas visible, we can give it a border by writing some JavaScript code. To do that, we need to insert <script> tags where all our JavaScript code will go.

Step 6: Creating and Drawing Our Snake To display the snake on the canvas, we can write a function to draw a rectangle for each pair of coordinates.

Step 7: Enabling Snake to Move We will now update our code to the below one to enable it to move:

Step 8: Changing Snake Direction Our next task is to change the snake's direction when one of the arrow keys is pressed. Add the following code after the drawSnakePart function.

Step 9: Generating Food for the Snake For our snake food, we have to generate a random set of coordinates. We can use a helper function randomTen to produce two numbers. One for the x-coordinate and one for the y-coordinate. We also have to make sure that the food is not located where the snake currently is. If it is, we have to generate a new food location.

Step 10: Growing the Snake Growing our snake is simple. We can update our advanceSnake function to check if the head of the snake is touching the food. If it is we can skip removing the last part of the snake and create a new food location.

Step 11: Keeping Track of the Score To make the game more enjoyable for the player, we can also add a score that increases when the snake eats food. Create a new variable score and set it to 0 after the snake declaration. let score = 0;Next add a new div with an id "score" before the canvas. We can use this to display the score.

Step 12: Near the End There is one final piece left, and that is to end the game. To do that we can create a function didGameEnd that returns true when the game has ended or false otherwise.

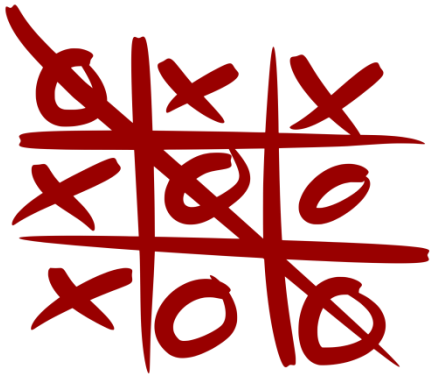
Step 13: Bind It All Up Together! Now you are ready to play, your code should look like this.

2.2 Chess

Chess is a board game for two players. It is played on a square board, made of 64 smaller squares, with eight squares on each side. Each player starts with sixteen pieces: eight pawns, two knights, two bishops, two rooks, one queen and one king.The player with white pieces always makes the first move. To create a Chessboard with Chess pieces we first need to know their Unicode or HTML equivalent codes. There are around 12 Symbols that are needed to create a Chessboard in HTML. These symbols are available in Unicode range U+2654 to U+265F. The primary objective of Chess is to capture your opponent's King while keeping your own well-guarded. When your King is trapped and cannot avoid capture, your opponent calls "checkmate" and the game is complete.

2.3 Tic Tac Toe

Tic-tac-toe (American English), noughts and crosses (Commonwealth English), or Xs and Os, is a paper-and-pencil game for two players, X and O, who take turns marking the spaces in a 3×3 grid. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row is the winner.



3. RESULTS AND DISCUSSION

3.1Output

File | C:/Users/91985/Desktop/New%20folder%20(2)/index.html

Not syncing

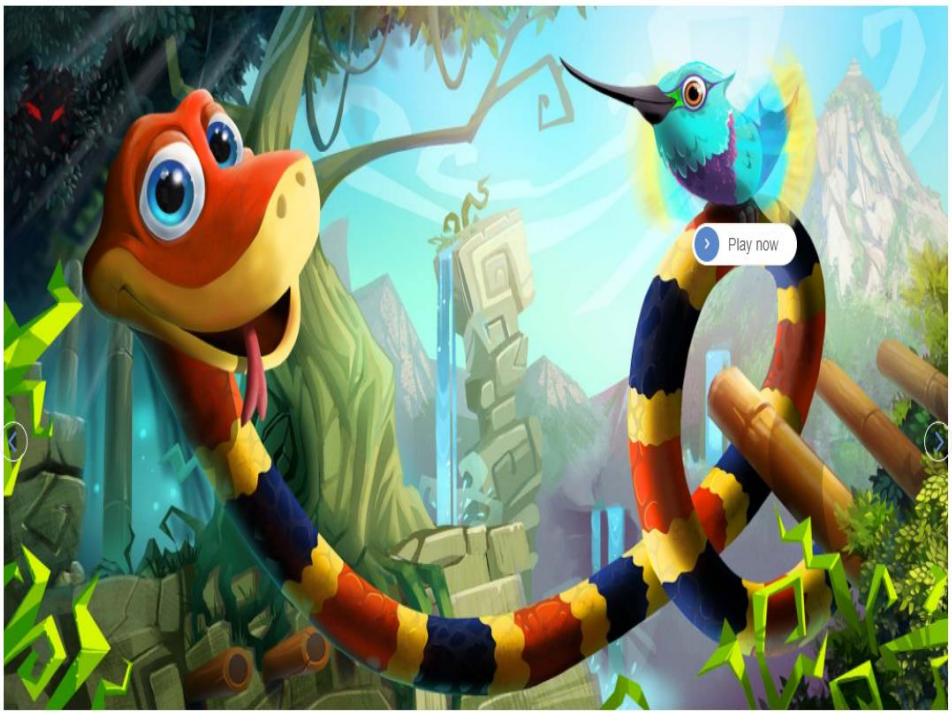
WELCOME TO GAMING COMMUNITY

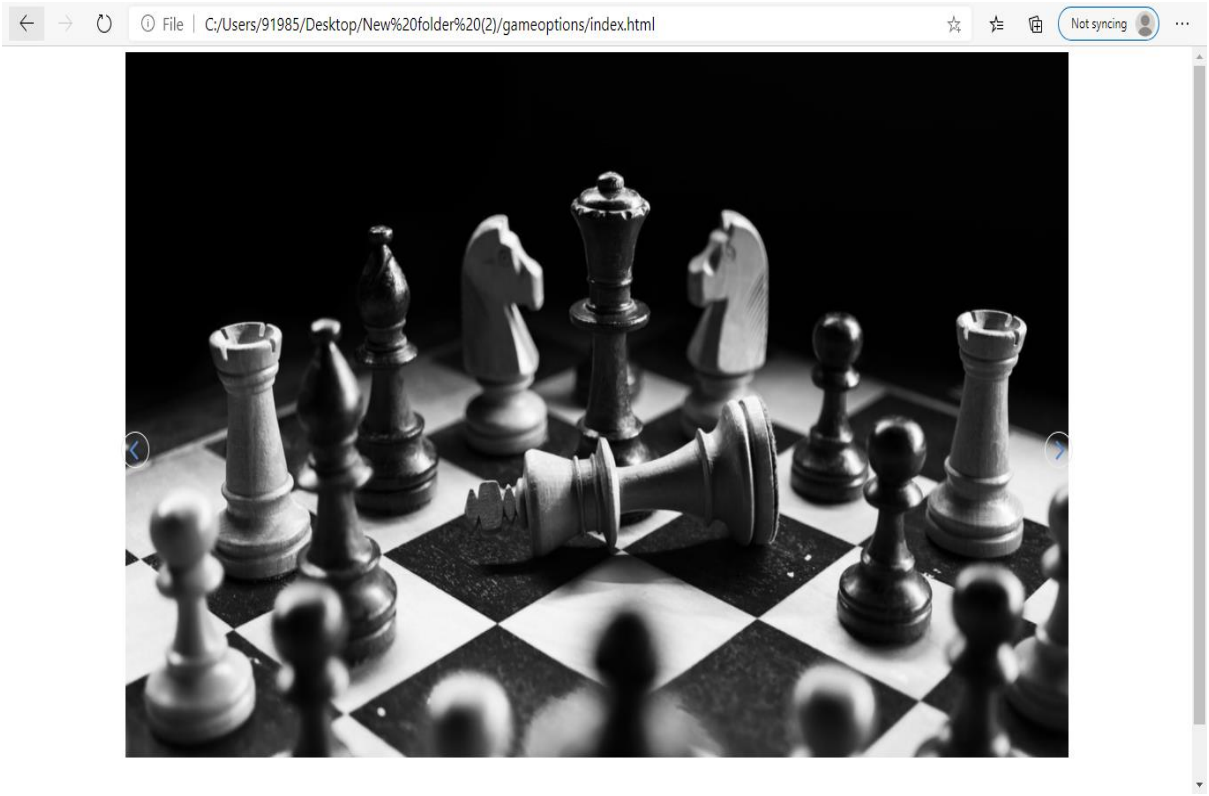
We make small games for low end computers

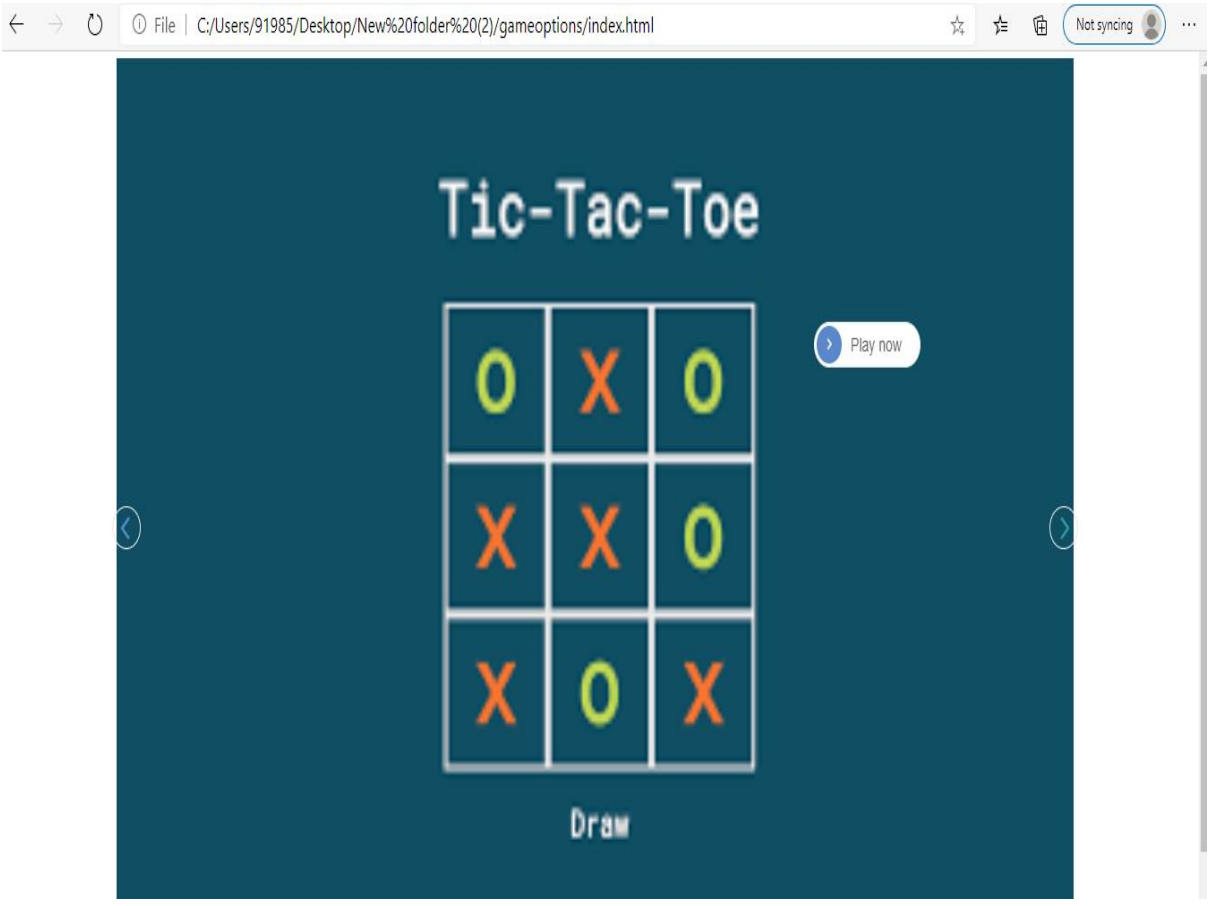
LET'S PLAY

File | C:/Users/91985/Desktop/New%20folder%20(2)/gameoptions/index.html

Not syncing




File | C:/Users/91985/Desktop/New%20folder%20(2)/gameoptions/index.html
Not syncing


File | C:/Users/91985/Desktop/New%20folder%20(2)/gameoptions/index.html
Not syncing
Tic-Tac-Toe
O X O
X X O
X O X
Play now
Draw

4.CONCLUSION AND FUTURE SCOPE

4.1 Conclusion \

HTML and CSS are actually surprisingly large topics, who would have thought? If you've made it this far, though, you're more than well on your way to front end development magic. You should be significantly more comfortable breaking down a webpage into its component pieces and then coding them with HTML and CSS. You have the tools necessary to identify an effective visual layout and then bring it to fruition. There are still plenty of ways you can make your workflow better or improve your knowledge of best practices (so don't stop learning!), but you've got everything you need to build beautiful websites. Now that you've finished this course, you are probably chomping at the bit for the final piece of the puzzle which will empower you to make everything dynamic.Javascript.

4.2 REFERENCES

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