SUMMER TRAINING REPORT

On

CODE PLAYER

Submitted by

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<u>Declaration</u>

I hereby declare that the work which is being presented in the Summer Training **"Code Player",** in partial fulfillment of the requirements for Summer Training viva voce, is an authentic record of my own work carried under the supervision of " Mr. Rob Percival".

Signature of Candidate: Diksha Khandelwal

Name of Candidate: Diksha Khandelwal

Roll. No. : 181500217

Course: B. Tech(CSE)

Year: 3rd

Semester: V

Certificate:

Certificate of Completion

This is to certify that **Diksha khandelwal** successfully completed 30.5 total hours of **The Complete Web Developer Course 2.0** online course on **June 9, 2020**

Rob Percival
Rob Percival, Instructor

Codestars by Rob Percival
Codestars by Rob Percival, Instructor

&

Udemy

Certificate no: UC-51ce8b1c-e953-4d83-9c79-9c9d61ec5179
Certificate url: ude.my/UC-51ce8b1c-e953-4d83-9c79-9c9d61ec5179

#BeAble

Summer Training Synopsis
B.Tech. (CSE)-Batch 2017-2021

Student Information:

Name:diksha khandelwal	University Roll. No. 181500217
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Information about Industry/Organization:

Industry/Organization Name with full Address	Udemy
Contact Person	Name & Designation: Mr. Rob Percival Mobile/email:

Project Information:

Title Of Project/Training/Task	Code Player
Role & Responsibility	The role is responsible for designing ,coding and modifying websites ,from layout to function.
Technical Details	Hardware Requirements:- Processor :-Minimum 1 GHz ; Recommended 2 GHz or more ; Wireless adapter(Wi-Fi) ; Hard Drive :- Minimum 32 GB ; Recommended 64 GB or above ; Memory(RAM) :- Minimum 4 GB OR above ; Software Requirements:- Editor : visual studio code , notepad++ ; Web Browsers :Chrome, Mozilla Firefox, Safari ;
Training Implementation Details	Fully Implemented YES Partial Implemented NO Not Implemented NO
Training Period	Start Date: 10/5/2020 End Date: 09/06/2020 Duration Of Training (In Weeks): 4 Weeks

Summary of the Training Work:

Web development in general term is a process of developing a website for all over the world that includes web design , web content development , client side / server – side scripting and web server configuration. But due to extremely growth in website design, it has been consider as a separate component .

For becoming a successful web developer should be aware of technologies used on the web. Mostly HTML and JavaScript is used to create the GUI for the web applications.

With the help of the training we are able to learn these technologies like:-

 HTML
CSS
JavaScript
jQuery
BootStrap

Acknowledgement

It is my pleasure to acknowledge the assistance of Mr. Rob Percival without his videos help this project would not have been possible. First and foremost, I would like to express our gratitude to **Mr. Rob Percival** my project guides, for providing invaluable Encouragement, guidance and assistance. After doing this project I can confidently say that this experience has not only enriched me with technical knowledge but also has unparsed the maturity of thought and vision. The attributes required being a successful professional.

ABSTRACT

The Code Player is like an editor, in which user can write code in HTML, CSS and JavaScript . Code Player is a playground for the front-end side of the web. Code Player is a social development environment for front-end designers and developers. Build and deploy a website, show off your work, build test or cases to learn and debug, and find inspiration. We have created this project that if there is no editor in user's laptop then user can code online on this editor and also user can do it with the mobile phone. The Code Player undertaken as a project is based on relevant technologies. The main aim of this project is to user can code easily on online   editor without any problem in all these three languages. In Code Player project HTML, CSS, JavaScript and jQuery technologies are used. HTML stands for Hyper Text Markup Language and it is the standard markup language for creating Web pages. It also describes the structure of a Web page and consists of series of elements. CSS stands for Cascading Style Sheet. It describes how HTML elements are to be displayed on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of web pages all at once. JavaScript is the world's most popular programming language. It is the programming language of the web. JavaScript is easy to learn. jQuery is a JavaScript Library. It greatly simplifies JavaScript programming. It is also easy to learn. Creating and managing requirements is a challenge of IT, systems and product development projects or indeed for any activity where you have to manage a contractual relationship. This is real-time online editor with instant live visual preview. Thus, above functions of this Code Player project it functions as an online editor and open-source learning environment, where user can code.

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1. Introduction

2. Technology used

Introduction

Motivation and Overview

The "Code Player" project is an online editor. This site enables the user to perform the online coding by sitting at their office or at homes through PC or laptop or mobile. This project is developed for online coding where the user can code using this Code Player. User can code online according to their requirements by accessing the website at any time. I think Code Player is an accessible starting point for learning web development and web design. But even if you're a seasoned pixel wrangler or have a string of Pens under your belt, I hope user pick up one or two new uses for the platform. Thus today's time user can prefers online coding instead of offline coding. Because in offline editor user have to set up first in which most of the time problem has been occurred.

Online editor is the place where user feel the sense of safety for their code. In the Online platform, users can code and get the correspondence output of their code. If user really want to get good at coding, take this exercise one step further and try to write your own code which produces the same result, using the original work as a reference .Even if user don't create a perfect copy, you will still learn by trying. Now to keep the belief and trust of user, there is the positive need for the online platform , which can handle all this with comfort and ease. Smooth and efficient platform affects the satisfaction of the users and coders, indirectly.

Now a day's, managing a coding in offline editor is tedious job up to certain limit. So online platform that reduces the work is essential. Also today's world is a genuine computer world and is getting faster and faster day-by-day. Thus, considering above necessities, the online platform for coding has became necessary which would be useful in managing the coding more efficiently.

Features

This editor gives user the different panels where the user can code.

1. HTML: In HTML user can code for giving structure and presenting content to their web page.
2. CSS: In CSS user can directly user can code for giving styling for the web page.
3. JavaScript: In JavaScript panel user can code for script only.
4. Output: In output panel user can see the real-time changes and live preview output in their code.

Objective

The main aim of designing and developing this Code Player is to provide the Education platform and to provide user a platform which does not require any installation of any application to code for front-end web page. It gives an independent online platform for the user to code for front-end web page it may not be good to take the user information and to save their details but it is very helpful where the user want to test the code. It is easy to use in this Code Player no account necessary just click on the any of the three buttons according to the user's will it mains that whichever language user wants to code in they can code according to them. This is a huge moment for students who are learning programming as in this lockdown period there must be huge moment of student who does not have their laptop with them so using this Code Player they can code in their phone also. They can see the direct result of the code they write and how that controls the site. Code Player is online platform which is free to use and free to access all the features from any device using Internet only. It allow the users to manage full front end within the site.

1.<u>Main Goals</u>: Our motto is to develop a software program for providing the platform which does require any installation process for any application of front-end web page. In this project user can code very effectively and efficiently. Hereby, our main objective is the coder's satisfaction considering today's faster in the world.

2.<u>Coder's Satisfaction</u>: Coders can do his coding comfortably without any risk or losing of his privacy. Our software will perform and fulfill all the tasks that any coder would desire.

3.<u>Saving Coder's Time</u>: Coder's doesn't need to install the offline editor to doing some coding.

4.<u>Protecting The Coder</u>: It helps the coder to be satisfied and comfortable in his choices, this protection contains coder's time and his privacy

About Company

Udemy is an American online learning platform aimed at professional , adults and students. It was founded in May 2010 by Eren Bali, Gagan Biyani, and Oktay Caglar. As of Jan 2020, the platform has more than 50 million students and 57,000 instructors teaching courses in over 65 languages.

Udemy is one of the World's largest and cost-effective Online Learning platform. It is one place where you can get access to a plethora of courses. The best part is that courses from various domains are available and also they are available in various languages.

Udemy is one of the leading world wide online learning marketplaces (e-learning).The courses are available on demand so that the learning is possible.

Udemy courses are available in 80 languages. Udemy makes top quality training much more affordable. It focuses on helping professionals long out of the university system to keepup with ever-changing workplaces. Udemy has redesigned its platform making e-learning an enjoyable experience through up to date and fully functional online tools. The modern search facility allows students faster answers to questions and quizzes make for an engaging hands-on experience.

By entering the website, you have the menu bar on the left side. You can sort the offered courses by language with the menu bar. Then you can check all the offered courses and filter them by subject. Prices are low with discounts every month and fees are charged per course rather than monthly which means you only pay for what you need. Purchased courses can be saved off-line meaning one payment gives you the keys to your future. For all offered topics there are also free courses available.

Payments can be effected with the mobile app that uses Apple's or Google Play's payment system depending on the device, often in your local currency.

Technology Used

HTML

HTML is an acronym which Hyper Text Markup Language which is used for creating web pages and web applications. Let's see what is meant by Hypertext Markup Language, and Web page.

Hyper Text: Hyper Text simply means "Text within Text."A text has a link with in it, is a hypertext. Whenever you click on a link which brings you to a new web page, you have clicked on a hypertext. Hyper Text is a way to link two or more web pages with each other.

Markup Language: A markup language is a computer language that is used to apply layout and formatting conventions to a text document. Markup language makes text more interactive and dynamic. It can turn text into images, tables, links, etc.

Web Page: A web page is a document which is commonly written in HTML and translated by a web browser. A web page can be identified by entering an URL. A web page can be of the static or dynamic type. With the help of HTML only, we can create static web pages.

Hence , HTML is a markup language which is used for creating attractive web pages with the help of styling, and which looks in a nice format on a web browser. An HTML document is made of many HTML tags and each HTML tag contains different content.

HTML version: we use HTML5 version.

HTML5 : HTML5 is the newest version of Hyper Text Markup language. The first draft of this version was announced in January 2008. There are two major organizations one is W3C (World Wide Web Consortium), and another one is WHATWG(Web Hypertext Application Technology Working Group) which are involved in the development of HTML5 version, and still, it is under development.

HTML sub topics

HTML Tags: HTML tags are like Keywords which defines that how web browser will format and display the content. With the help of tags, a web browser can distinguish between an HTML content and a simple content. HTML content and a simple content. HTML tags contain three main parts: opening tag, content and closing tag. But some tags are unclosed tags. When a web browser reads an HTML document, browser reads it from top to bottom and left to right. HTML tags are used to create HTML documents and render their properties.

HTML Elements: An HTML file is made of elements. These elements are responsible for creating web pages and define content in that webpage. An element in HTML usually consist of a start tag <tag name>, close tag </tag name> and content inserted between them. **Technically, an element is a collection of start tag, attributes, end tag, content between them**.

HTML Headings: HTML heading or HTML h tag can be defined as a title or a subtitle which you want to display on the webpage. When you place the text within the heading tags <h1>……</h1>, it is displayed on the browser in the bold format and its size of text depends on the number of heading. There are total six tags which is <h1> to <h6>. h1 is the largest heading tag and h6 is the smallest one.

HTML Paragraph: HTML paragraph or HTML p tag is used to define a paragraph in a webpage. It is notable point that a browser itself add an empty line before and after a paragraph. An HTML <p> tag indicates starting of new paragraph.

HTML Image: HTML img tag is used to display image on the web page. HTML image on the web page. HTML img tag is an empty tag that contains attributes only, closing tags are not used in HTML image element.

HTML Tables: HTML table tag is used to display data in tabular form(row*column). We can create a table to display data in tabular form, using<table> element, with the help of <tr>, <td> and <th> elements.

HTML Lists: HTML Lists are used to specify lists of information. All lists may contain one or more list elements. There are three different types of HTML lists:

1.Ordered List (ol)

2.Unordered List (ul)

3.Description List (dl)

HTML Form: An HTML form is a section of a document which contains such as text fields, password fields, checkboxes, radio buttons, submit button, menus etc. An HTML form facilities the user to enter data that is to be sent to the server for processing such as name, email address, password, phone number etc.

HTML iframes: HTML iframes is used to display a nested webpage. The HTML <iframe> tag defines an inline frame, hence it is also called as an Inline frame. An HTML iframe embeds another document within the current HTML document in the rectangular region. The webpage content and iframe contents can interact with each other using JavaScript.

HTML Entities: HTML character entities are used a replacement of reserved characters in HTML. You can also replace character that are not present on our keyboard by entities.

These characters are replaced because some characters are reserved in HTML. HTML entities provide a wide range of characters which can allow you to add icons, geometric shapes, mathematical operators etc.

CSS- Cascading Style Sheets

Cascading Style Sheets, fondly referred to as CSS, is a simple design language intended to simplify the process of making web pages presentable.

- CSS stands for Cascading Style Sheets
- CSS describes how HTML **elements are to be displayed on screen, paper, or in other media**
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
- External stylesheets are stored in **CSS files**

CSS is a MUST for everyone to become a great Software Engineer specially when they are working in Web Development Domain. I will list down some of the key advantages of learning CSS:

Create Stunning Web site - CSS handles the look and feel part of a web page. Using CSS, you can control the color of the text, the style of fonts, the spacing between paragraphs, how columns are sized and laid out, what background images or colors are used, layout designs, variations in display for different devices and screen sizes as well as a variety of other effects.

Become a web designer - If you want to start a career as a professional web designer, HTML and CSS designing is a must skill.

Control web - CSS is easy to learn and understand but it provides powerful control over the presentation of an HTML document. Most commonly, CSS is combined with the markup languages HTML or XHTML.

Learn other languages - Once you understands the basic of HTML and CSS then other related technologies like javascript, php, or angular are become easier to understand.

Applications of CSS

As mentioned before, CSS is one of the most widely used style language over the web. I'm going to list few of them here:

CSS saves time - You can write CSS once and then reuse same sheet in multiple HTML pages. You can define a style for each HTML element and apply it to as many Web pages as you want.

Pages load faster - If you are using CSS, you do not need to write HTML tag attributes every time. Just write one CSS rule of a tag and apply it to all the occurrences of that tag. So less code means faster download times.

Easy maintenance - To make a global change, simply change the style, and all elements in all the web pages will be updated automatically.

Superior styles to HTML - CSS has a much wider array of attributes than HTML, so you can give a far better look to your HTML page in comparison to HTML attributes.

Multiple Device Compatibility - Style sheets allow content to be optimized for more than one type of device. By using the same HTML document, different versions of a website can be presented for handheld devices such as PDAs and cell phones or for printing.

Global web standards - Now HTML attributes are being deprecated and it is being recommended to use CSS. So its a good idea to start using CSS in all the HTML pages to make them compatible to future browsers.

CSS Selectors

CSS selectors are used to "find" (or select) the HTML elements you want to style.

- The CSS element Selector
- The CSS id Selector
- The CSS class Selector
- The CSS Universal Selector
- The CSS Grouping Selector

CSS Colors

Colors are specified using predefined color names, or RGB, HEX, HSL, RGBA, HSLA values.

- CSS Background Color
- CSS Border Color
- CSS Text Color

CSS Links

With CSS, links can be styled in different ways.

- Styling Links
- Text Decoration

CSS Margins

The CSS margin properties are used to create space around elements, outside of any defined borders.With CSS, you have full control over the margins. There are properties for setting the margin for each side of an element (top, right, bottom, and left).

CSS Padding

The CSS padding properties are used to generate space around an element's content, inside of any defined borders.With CSS, you have full control over the padding. There are properties for setting the padding for each side of an element (top, right, bottom, and left)

CSS Layout - The position Property

The position property specifies the type of positioning method used for an element (static, relative, fixed, absolute or sticky). Elements are then positioned using the top, bottom, left, and right properties. However, these properties will not work unless the position property is set first. They also work differently depending on the position value.

CSS Borders

The CSS border properties allow you to specify the style, width, and color of an element's border.

CSS Border Style: The border-style property specifies what kind of border to display.

The following values are allowed:

- dotted - Defines a dotted border
- dashed - Defines a dashed border
- solid - Defines a solid border
- double - Defines a double border
- none - Defines no border
- hidden - Defines a hidden border

The border-style property can have from one to four values (for the top border, right border, bottom border, and the left border).

CSS layout- float and clear: The CSS float property specifies how an element should float. It is used for positioning and formatting content e.g. let an image float left to the text in a container. The CSS clear property specifies what elements can float beside the cleared element and on which side.

2.31 JavaScript

JavaScript is a light-weight object-oriented programming language which is used by several websites for scripting the webpages. It is an interpreted, full-fledged programming language that enables dynamic interactivity on websites when applied to an HTML document. It was introduced in the year 1995 for adding programs to the webpages in the Netscape Navigator browser. Since then, it has been adopted by all other graphical web browsers. With JavaScript, users can build modern web applications to internal directly without reloading the page every time. The traditional websites uses js to provide several forms of interactivity and simplicity. Although, JavaScript has no connectivity with Java programming language. The name was suggested and provided in the times when Java was gaining popularity in the market. In addition to web browsers, databases such as CouchDB and MoongDB uses JavaScript as their scripting and query language.

Features of JavaScript

1. All popular web browsers support JavaScript as they provide built-in execution environments.
2. JavaScript follows the syntax and structure of the C programming language. Thus it is a structured programming language.
3. JavaScript is a weakly typed language, where certain types are implicity cast.
4. JavaScript is an object-oriented programming language that uses prototypes rather than using classes for inheritance.
5. It is light-weighted and interpreted language.
6. It is case-sensitive language.
7. JavaScript is supportable in several operating systems including, Windows, macos, etc
8. It provides good control to the users over the web browsers.

2.32 JavaScript sub topics

JavaScript Variables: JavaScript variables are containers for storing data values. Before 2015, using the **var** keyword was the only way to declare a JavaScript variable. The 2015 version of JavaScript(ES6 – ECMASCRIPT 2015) allows the use of the **const** keyword to define a variable that cannot be reassigned, and the **let** keyword to define a variable with restricted scope. Because it is a little complicated to describe the difference between these keywords, and because they are not supported in older browsers.

JavaScript Arrays: JavaScript arrays are used to store multiple values in a single variable. An array is a special variable, which can hold more than one value at a time. An array can hold many values under a single name, and you can access the values by referring to an index number. Using an array literal is the easiest way to create a JavaScript Array.

JavaScript Conditions: There are following condition.

1.If statement is use to specify a block of JavaScript code to be executed if a condition is true.

2.else statement is use to specify to block of code to be executed if the condition is false.

3.else if statement is use to specify a new condition if the first condition is false.

4.Switch statement is use to perform different actions based on different conditions.

JavaScript loops: Loops can execute a block of code a number of times.

There are different kinds of loops:

1.For - loops through a block of code a number of times.

2.For/in - loops through the properties of an object.

3.For/of - loops through the values of an iterable object.

4.While – loops through a block of code while a specified condition is true.

5.do/while - also loops through a block of code while a specified condition is true.

But mostly we use **for and while loop.**

JavaScript Regular Expression: A regular expression is a sequence of characters that forms a search pattern. When you search for data in a text, you can use this search pattern to describe what you are searching for.

Syntax of Regular Expression:

/pattern/modifiers;

jQuery

The purpose of jQuery is to make it much easier to use JavaScript on your website.

jQuery is a lightweight, "write less, do more", JavaScript Library. The purpose of jQuery is to make it much easier to use JavaScript on your website. It takes a lot of common tasks that require many lines of JavaScript code to accomplish, and wraps them into methods that you can call with a single line of code.

jQuery also simplifies a lot of the complicated things from JavaScript, like AJAX calls.

The jQuery library contains the following features:

- HTML/DOM manipulation
- CSS manipulation
- HTML event methods
- Effects and animations
- AJAX

There are lots of other JavaScript libraries out there but jQuery is probably the most popular, and also the most extendable.

Many of the biggest companies on the Web use jQuery, such as:

- Google
- Microsoft
- IBM
- Netflix

Some important topics

Adding jQuery

There are several ways to start using jQuery on your web site. We can:

- Download the jQuery library from jQuery.com
- Include jQuery from a CDN, like Google in head section

jQuery Selector

jQuery selector allow you to select and manipulate HTML element(s).

jQuery selector are used to "find" (or select) HTML elements based on their name, id, classes, types, attributes, value of attributes and much more.

jQuery Animation

The jQuery animate() method is used to create custom animations.

This means that if you write multiple animate() calls after each other, jQuery creates an "internal" queue with these method calls. Then it runs the animate calls **ONE by ONE**.

jQuery AJAX

AJAX is the art of exchanging data with a server, and update parts of a web page - without reloading the whole page.

jQuery Event

All the different visitor's actions that a web page can respond to are called events.

An event represents the precise moment when something happens.

Examples:

- moving a mouse over an element
- selecting a radio button
- clicking on an element

jQuery Fading

With jQuery you can fade elements in and out of visibility.

jQuery has the following fade methods:

- jQuery fadeIn()
- jQuery fadeOut()
- jQuery fadeToggle()
- jQuery fadeTo()

Hardware Requirements Specification

Processor : Intel Pentium III or later

Main Memory(RAM) : 256 MB

Cache Memory : 512 KB

Monitor : 14 inch Color Monitor

Keyboard : 108 Keys

Mouse : Optical Mouse

Hard Disk : 160 GB

Software Requirements Specification

Front End/Language : HTML, CSS, JavaScript, jQuery

Additional Tools : XAPM Server

Operating System : Windows 7, 8, 9, 10, XP

FUTURE SCOPE OF THE PROJECT

This project can be handled in future by doing various modifications like: -

➢ We can go further for Online coding.

➢ We can establish and start various editors and available help for coder's .

➢ We can also deal through internet by creating web pages and a online website for internet dealing.

➢ We can also deal in various types of Online Coding.

➢ To have more and more coder satisfaction we will emphasize more and more on our coding.

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SEARCH ENGINES: -YAHOO, MSN, GOOGLE etc.