PLAYCUB Curriculum

Web Development Basics

Empower your kids to think critically, communicate clearly and build beautiful websites
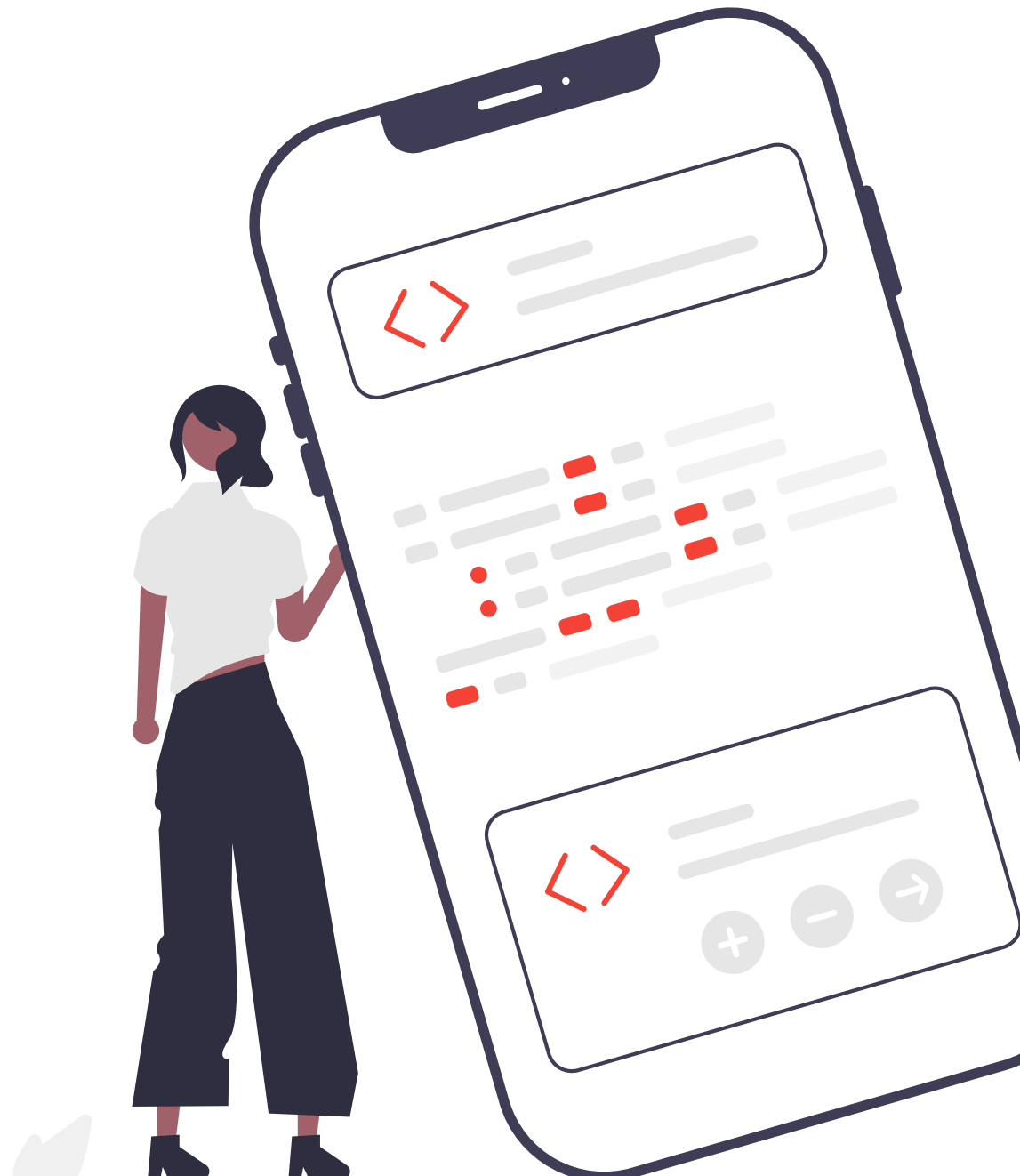
₹250 / Class

16 Classes

Video Content

Assignments

→ Learn HTML, CSS and Javascript

→ 1 hour interactive classes

→ Assignments and homework after every session

→ Solve doubts during and outside the class

→ Free access to materials

Introduction to the Internet

Learn about the history of internet and an introduction to HTML - the markup language that powers the web

TOPICS

1. Warm Up
2. How the Internet Works
3. How websites and browsers work
4. What is HTML, Mark up Languages, general syntax, Heading tags, Line Break
5. Documentation, Importance of googling things
6. Create a code sandbox
7. Anatomy of HTML
8. Self Closing tags, HR tags, HTML Attributes, Comments
9. Dev tools
10. Internet Archive Wayback Machine
11. Watch the videos and complete the installation of relevant editors

HTML - Boilerplate and Content Tags

Continuing with HTML on how to create a project with a boilerplate and learn about the formatting the content

TOPICS

1. HTML Boilerplate, Creating a project in the editor, Boiler Plate HTML, Versions of HTML, Head, body, meta tags and attributes, title tag, Encoding (UTF - 8)
2. Ask the student to add H1 heading
3. Indentation, Paragraph tag, italic tag, em, strong, hr tags
4. Ask the student to search the documentation,identify and use italic tag
5. HTML List tags, image tags, link and anchor tags

HTML - Tables and Forms

Tables and forms are one of the most common elements on the web which can be simple to complex

TOPICS

1. HTML Tables
2. Tables for layouts
3. HTML Tables challenge
4. HTML Forms
5. Forms in practice

QUIZ

CSS - The Beautification Language

What makes the internet stylish? Yes, the Cascading Style Sheets. Learn about what is CSS and introduction to basic tags

TOPICS

1. What is CSS, CSS Tags
2. Build upon the personal page and make it beautiful
3. Style attribute, Inline CSS, Background colour, shortcomings of inline CSS
4. Style tag, attributes, CSS tags, height, width, pixels
5. External CSS and how to debus CSS
6. Exercise on border properties,(Sean)

QUIZ

CSS - Syntax and Selectors

Know how to write good CSS and how to select elements to apply CSS

TOPICS

1. Absolute positioning, Centering elements in CSS,
2. Typography, CSS Sizing,
3. Font challenges - Change, colour, font, height
4. CSS Float and Clear
5. CSS challenge

CSS - Box Model and Positioning

Learn about keeping elements in a box model to wrap everything neatly and positioing elements in the webpage

TOPICS

1. What is JS, Importance of JS
2. Open inspect, show console and show the importance of JS, disable JS in settings, Alert
3. Data types, type of function, variables
4. JS Variables exercise
5. Naming Conventions

JS Variable Naming Quiz

CSS - More on Positioning and Typography

Learn how to position elements on the webpage, create beautiful typography and layouts

TOPICS

1. String concatenation, string length, slicing extracting parts of a string, retrieving the number of characters
2. Changing case in the text
3. Arithmetic Operators, PEMDAS
4. Dog age calculator
5. Increment and decrement operators

JS - The Language that Brings Webpages to Life

Introduction to one of the most popular OOP language, using it in the browser, datatypes, variables and naming conventions

TOPICS

1. Functions, get milk example, creating and calling functions
2. Karen robot example
3. Functions, parameters and arguments, outputs and return values
4. BMI calculator

JS Functions Quiz

JS - Strings and Operators

Learn how to manipulate strings in Javascripts along with working with mathematical operators

TOPICS

1. Random Function, Math Library
2. Love Calculator
3. If-else, equality and comparators, combining comparators
4. BMI Advanced
5. Arrays, Adding elements to array, intermediate array techniques
6. Leap Year Challenge

JS Functions

Write reusable chunks of code that perform a particular function and can be called again and again

TOPICS

1. Control statements - While loop, for loop
2. Fibonacci Challenge
3. Adding JS to websites
4. DOM, Inner HTML, Query Selector, Properties, methods

JS Functions Contd., Conditionals and Arrays

More about functions, using conditional statements such as if-else and storing large data in groups called Arrays

TOPICS

1. Selecting HTML elements with JS
2. Activities on Selecting elements
3. Manipulating and changing styles of HTML elements with JS, Query selectors
4. Text manipulation, text content property, manipulating HTML attributes
5. Event Listeners, Add event listener, Event listener
6. Activities on Event Listeners

JS - Control Statements

What if you have to run the same set of statements again and again. It is the loops or control statements to your rescue

TOPICS

1. Seperation of concerns, class list property
2. Higher Order functions and passing functions as arguments
3. Play sounds, audio elements
4. A deeper understanding of JS objects, constructors
5. Switch, methods and dot notation

JS - DOM Manipulation and Intro to Event Listerners

Access elements on the webpage with help DOM selectors, apply dynamic changes to them and learn about event listeners to apply changes upon specific triggers

TOPICS

1. Anatomy of CSS syntax
2. CSS Selectors
3. Classes vs IDs
4. Favicons
5. Build on the previous project
6. HTML divs

CSS QUIZ

JS - Higher Order Functions and Objects

Learn about higher order functions, passing arguments and objects in Javascript

TOPICS

1. Box Model
2. CSS Display Property
3. CSS Static and relative positioning
4. Build on the Previous Project

CLASS 15

JS Event Listerners and JQuery

Continuing with more types of event listeners and introduction to JQuery - a useful JS library

TOPICS

1. Keyboard event listeners
2. Understanding callbacks and events
3. What is jQuery, incorporating jQuery
4. Minification, Selecting elements, manipulation styles, text, attributes
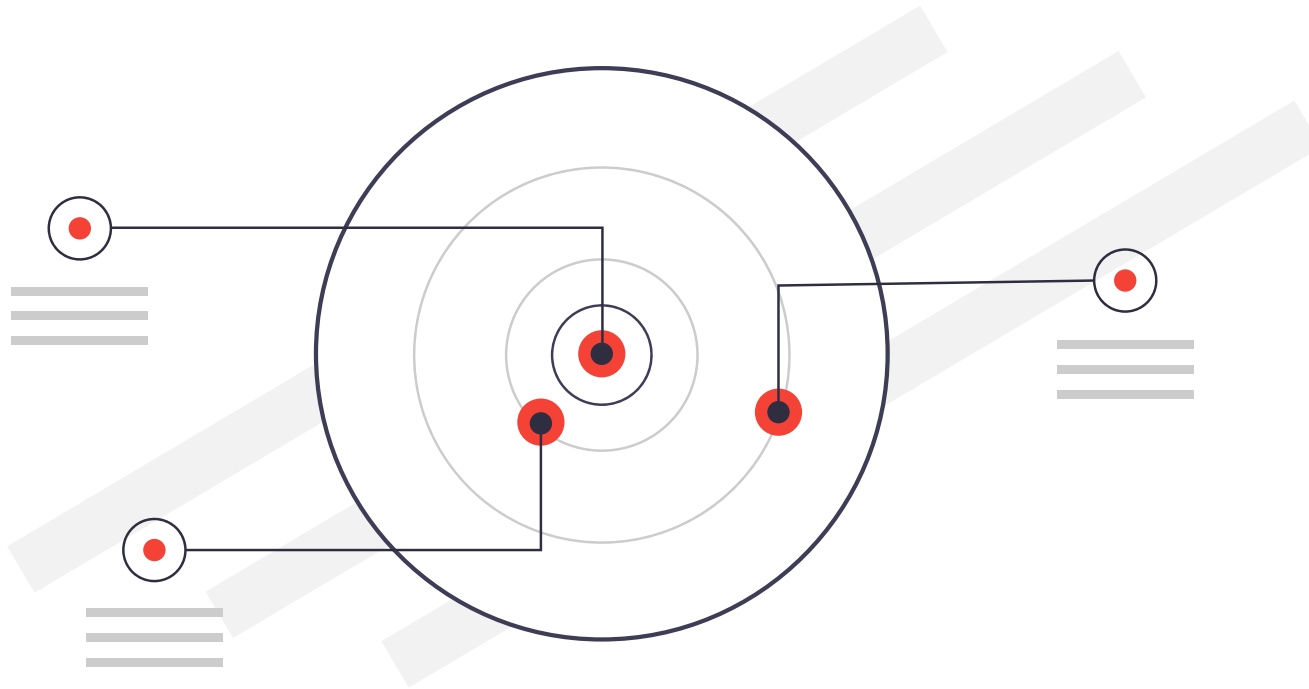5. Manipulation Activites

CLASS 16

JQuery Event Listeners and Animations

Deep dive into JQuery event listening capabilities and creating simple website animations

TOPICS

1. Adding Event listeners with jQuery
2. Adding and removing elements with jQUery
3. Website Animations with jQuery

Ready to get your kids the first experience with code?

Visit us at **https://www.playcub.org**

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