

Technology: HTML

- **HTML5 - Introduction, Fundamentals, Basic Element, Headings, Paragraph**

Task 1: Replicate the images provided

Image link:- [Image for task 1](#)

- **Basic Elements, Attributes, Formatting and Quotation, Lists**

Task 2: Replicate the images provided

Image link:- [Image for Task 2](#)

- **Links, HTML5**

Task 3: Create header that links to home, about, contact page.

- **Semantic & non-semantic Special Symbols and Characters, block & Inline**

Task 4: Create a Academics page, which contains a list of all the departments present in the college Arts, Science and Commerce. The list should be a nested list, with available courses mentioned under each department. There should be a minimum of two courses under each department, (for e.g. Computer Science and Mathematics under Science, English and Sociology under Arts and so on). Each Course entry in the list should be a HTML link that leads to a web-page totally dedicated to the course itself. Style it

- **Add Media to Webpage: Images, video, Blocks, iFrames**

Task 5: Include youtube videos, images inside the website.

- **Tables**

Task 6: Replicate provided image (table)

Image link:- [Image for Task 6](#)

- **Forms**

Task 7: Create form : name, age, designation, email, pwd, date of birth from user, add style

Technology: CSS

- **Introduction, Syntax, Selectors, Colors, Backgrounds**

Task 8: create a div with background image and add button and text over it .

- **Borders Margins, Padding, Box Model, Text, Font**

Task 9: Create 3 div(add border, margin to boxes), add background image to them, add text and button over image in center follow the folder structure (use external css)

- Text, Font, Icon, Display, Overflow

- Position, Combinators

- Pseudo Class & Elements, Opacity

Task: practice anchor tag styling, read about placeholder pseudo element

- **Flex**

Task 10: Replicate the image provided

Image link:- [Image for Task 10](#)

How to make website responsive

Reference Image link:- [website image](#)

- **Bootstrap**

MINI - Project -1: Create a responsive blog website.

Technology: JS/ES6

- **JavaScript - Introduction, Language basics, Variables**
- Variables, Operators, Arithmetic, Assignment, Comparisons, Conditions, Implicit coercion

Task 11:

// Implicit coercion:

// practice questions on implicit coercion

// console.log('A' - 1);

// console.log('A' + 1);

// console.log(2 + '2' + '2');

// console.log('hello' + 'world' + 89);

// console.log('hello' - 'world' + 89);

// console.log('hello' + 78);

// console.log('78' - 90 + '2');

// console.log(2 - '2' + 90);

// console.log(89 - '90' / 2);

// console.log((true == false) > 2);

- **Data Types: Strings, Numbers, Boolean, explicit coercion**

Task 12:

1. extract first five letters from a string (' gfuh ieieui ')
2. get the length of a string and make it uppercase ('hduej dij')
3. take a string, make it lowercase and trim it (' biji jdo ')
4. replace specified word in a string (" , ")
5. random statements in implicit coercion e.g. (89 + 'hello' + 90 / 9)

- **Objects, Arrays**

Task 13:

1. create an object for animal, car.
2. find the duplicate in a string() (use array) - optional
3. reverse a string (use array method)
4. find the highest and lowest value in array
5. sorting of an array - optional
6. display first 3 elements in an array in UI
7. remove 4th (index) element and add 2 element there

- **Date Object, Math Object**

- **Functions, Scope, Events**

Task14:

1. Create parameterized method/function to multiply 3 numbers

2. create parameterized method to divide 2 numbers
3. create a method to add background color to div element
4. write function to generate random background color of body (hint: Math.random())
5. onload of your webpage, display modal (bootstrap 4 or 5):
Webpage link:- [Webpage link to display modal](#)

▪ Conditional Statements

Task 15:

1. given number is multiple of 3 or not e.g.10900
2. check particular sub-word exist in a string or not e.g. i am learning js: 'js' exists or not
3. calculate complex interest $((p/r) * t) / 100$: take principle, rate and time from user

▪ Loops

Task 16:

1. display even numbers upto n number (ask user for number)
2. ask user for the input, whether char is vowel or consonant
3. count of even and odd number from 1 to 999
4. count occurrence of a particular character in a string (hello: count of l is 2):
loops
5. sum and average of array elements [1, 9, 8];
6. largest number in an array (do with loops)

- **DOM, BOM, Hoisting**

Task 17: Display 3 cards in a row through js

- **Forms, Form Validations, RegExp**

Task 18: create a form and validate it: email, contact, name, age, designation, select multiple files, DOB and submit form

- **This Keyword, Debugging**

- **Asynchronous- Promise, Callback, Asynchronous, API call**

Task 19:

1. look for api and display movie records in the form of cards in UI (movie data api)
2. create a function to get data from user and display that in callback function

- **Advance JavaScript (ES6): const and let keywords, arrow function, classes, advance operators(spread & rest operators) array helper functions (map, filter, some ,every, forEach)**

Task 20:

1. get the value of the first element in an array that has value greater than 20
2. get the value of the first element in an array that has value less than 20
3. filter data based on a id(property) in an array of objects: pick any random id value
4. check element is odd or even in an array [90, 89, 56, 45]

5. create a class Book: type_of_book(), no. of pages, type of pages, author

6. create a class Animal: walk(), eat(), climb(), gender, name, disease

Mini-Project-2: Create a to-do list/crud app/score board app.

Technology: ReactJs

- Installation Node, NPM, Versions, Features, Pros & Cons
- Installation, Browser extensions, VScode plugins, Setup Production Environment
- JSX, Components (Functional and Class)

Task 21:

1. create a employee data(array of object) (name, age, salary, designation) in state and display data in UI

2. create an product object in state and update 2 property of it and display state data in UI

- State & Hooks (useState), Props, Default Props & Props Validation, State vs Props

Task 22:

1. Create an array of object and update its second index (2)

2. Create an object, update it's 2 property values

3. Practice all data types for state variable

- Styling ReactJs: MaterialUI, Bootstrap CSS

Task 23: practice: Headers, footer, cards, accordion, carousel with material ui

- Forms, Form Validations & Controlled vs Uncontrolled Input

Task 24:

1. Using class based component

create signup form (name, age, dob, contact, email, password) validate it and show some message('Form is submitted') in UI

2. Using Function based component

create a login form (email & password)

regex, validate form and display user entered data below form

- Events, Conditional Rendering
- Component Life Cycle, Hooks – useEffect

Task 25:

1. get the data from an api (<https://jsonplaceholder.typicode.com/posts/>) and display first 5 records in UI: do it in class based

2. get the data and display <https://jsonplaceholder.typicode.com/posts/1> do this in function based component

- Lists, Keys, Refs, Fragments, Higher-Order Components
- React – Router

Task 26: Create a React application, having Home, About, Contact Pages

In Movie Page, get data from Movie/User api and display movies image and name, when user clicks on movies name display each movies record in another page. In the About page, add a carousel, and content about the team. In the contact page add a form and when the user submit form, display the form submitted in modal.

Technology: Redux

- React - Redux SetUp, Flow
- Selector, Containers, Actions, Reducers with mapStateToProps and mapDispatchToProps
- Actions, Reducers with useSelector, useDispatch
- Saga, Thunk

Project: Create an e-commerce/Spotify website.