

Aspira System Project Questions

HTML5 , CSS3 & Bootstrap:

1. Create a Gym Website by following these norms:

- **Keep it Simple:** As a beginner, it's important to focus on creating a simple website that is easy to navigate and understand. Avoid adding too many design elements or features that could confuse visitors.
- **Plan Your Design:** Before you start coding, take some time to plan out the design of your website. Decide on a color scheme, layout, and typography that will represent your gym brand.
- **Use Semantic HTML:** Use semantic HTML elements to structure your website's content. This will help search engines understand the meaning of your content, and make it more accessible to visitors who use assistive technologies.
- **Optimize for Mobile:** Make sure your website is optimized for mobile devices. This means using responsive design techniques to ensure your website looks good on any screen size.
- **Use CSS3 for Styling:** Use CSS3 to style your website's layout, typography, and design elements. This will give you more control over the look and feel of your website.
- **Include Clear Call-to-Actions:** Make sure your website includes clear call-to-actions, such as buttons or links, that encourage visitors to sign up for your gym or contact you for more information.
- **Test and Iterate:** Once your website is up and running, be sure to test it on different devices and browsers to ensure it looks and functions as expected. Use analytics to track visitor behavior and iterate on your website design to improve its effectiveness.

2. Create a Simple Single Page website using Flex with Responsive

3. Create a Simple Single Page Layout website using Grid with Responsive.

4. Create a simple website example using HTML and Bootstrap 5. This example includes a header section with a navigation menu, a hero section with a call-to-action button, and a section for displaying features or services

Java Script:

DOM:

5. [a] Create a To Do List using DOM
[b] Create a Market Cashier using DOM
6. Create a form using HTML & CSS with good attractive inputs and give a function when submit gives an alert
7. [a] Create a Color Picker
[b] Create a Quiz
8. [a] Create a QR Scanner Code (or) Music Player
[b] Create a Any Game [Whack a mole, Chess, Rock-Paper-Scissors, Snake]

DSA:

❖ Using If Else Statement:

1. Write a program that takes in a number from the user and checks if it's even or odd using an If else statement. If the number is even, print "The number is even." If it's odd, print "The number is odd."
2. Write a program that takes in two numbers from the user and determines which one is larger. If the first number is larger, print "The first number is larger." If the second number is larger, print "The second number is larger." If they are equal, print "Both numbers are equal."

❖ Using Loop:

3. [a] Write a program that takes in an array of numbers and finds the sum of all the numbers using a for loop.

Q: i/p - `numbers = [1,2,3,4,5]`

[b] Write a program that takes in a string and prints out each character of the string on a new line using a for loop.

Q: i/p - `Str = "Hello, world";`

4. [a] Write a program that takes in a string and checks if it's a palindrome using a while loop.

Q: i/p - `str = "racecar"`

[b] Write a program that takes in an array of strings and returns a new array with all the strings capitalized using a for loop.

Q: i/p - `strings = ["hello", "world", "javascript"];`

❖ Using Math Object:

5. Find the max and min of the numbers in a given problem by using `setInterval` and `timeout` methods.

Q: i/p - `numb = [2,5,8,10,23,1,50,25]`

❖ Using ES6 Methods:

6. [a] Write a program that takes in an array of strings and returns a new array with only the strings that have a length of 5 or more, sorted in alphabetical order.

Q: i/p - `strings = ["apple", "banana", "pear", "grape", "orange"];`

[b] Write a program that takes in an array of objects representing people and returns a new array with only the people who are over the age of 18, sorted in ascending order by age.

Q: i/p- `people = [`

`{ name: "Alice", age: 25 },`

`{ name: "Bob", age: 16 },`

`{ name: "Charlie", age: 30 },`

```
{ name: "Dave", age: 18 },  
];
```

[c] Write a program that takes in an array of numbers and returns a new array with only the numbers that are prime, sorted in descending order.

Q: i/p - `numbers = [2, 7, 4, 11, 9, 13];`

❖ Complete JS:

7. [a] Write a function that takes in a string and returns the length of the longest substring without repeating characters.

Q: i/p - `input: "abcabcbb"`
`output: 3`

[b] Write a function that takes in two sorted arrays of numbers and returns a new sorted array that contains the intersection of the two arrays (i.e., the numbers that are present in both arrays).

Q: i/p - `input: [1, 2, 3, 4, 5], [3, 4, 5, 6, 7]`
`output: [3, 4, 5]`

[c] Write a function that takes in a matrix (a two-dimensional array) of numbers and returns a new matrix that is the transpose of the original matrix (i.e., the rows become columns and the columns become rows).

Q: i/p - `Input:`
`matrix = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]`
`Output:`
`[[1, 4, 7], [2, 5, 8], [3, 6, 9]]`

❖ Complete Web Development Project:

- Create a Landing Page on building a Random Restaurant Website by picking any template from your side.
- Create a Basic Portfolio Website. [or]
- Create a Blog Website [or]
- Create a Weather Forecast Website.
- Create a Transcript Summarize the Youtube
 - To create a transcript using HTML, CSS, and JS, you would first need to extract the audio from the YouTube video and save it as a separate file. Next, you would

create an HTML file that contains the text of the transcript.

- Using CSS, you can style the text to make it more readable and visually appealing. For example, you can adjust the font size, color, and spacing to make the text easier to read.
- Using JavaScript, you can add functionality to the transcript, such as the ability to play and pause the audio file while reading the transcript. You can also add timestamps to the transcript to help users navigate to specific parts of the video.

Learn things slowly and accurately first, then gradually speed things up !!

~Aspira Team