Interview Questions(HTML, CSS, JS and Python)

**I) HTML Interview Questions**

1. What is Marquee in HTML?
2. What is Semantic HTML, and how does it work?
3. How do you display a Table on an HTML Webpage?
4. What’s the difference between HTML5 and HTML4?
5. What is the difference between canvas and svg?
6. Why you would use a srcset attribute in an image tag? Explain the process the browser uses when evaluating the content of this attribute.
7. Consider HTML5 as an open web platform. What are the building blocks of HTML5?
8. How do you serve a page with content in multiple languages?

**II) CSS Interview Questions**

1. What is the best way to include CSS Styling in HTML?
2. Mention the different types of CSS Selectors.
3. How do you create a responsive layout?
4. How do you use animation and transitions?
5. Describe Floats and how they work.
6. How would you implement a web design comp that uses non-standard fonts?
7. Can you give an example of a pseudo-class?
8. What’s the difference between the "nth-of-type()" and "nth-child()" selectors?

**III) JavaScript Interview Questions**

1. What is Callback in JavaScript?
2. What’s the difference between Function Declaration and Function Expression?
3. What are Closures in JavaScript?
4. What is the best way to remove Duplicates from a JavaScript Array?
5. Explain how this works in JavaScript. Can you give an example of one of the ways that working with this has changed in ES6?
6. Write an immediately invoked function expression (IIFE)
7. How can you share code between files?
8. Can you explain how to destruct an object or an array?
9. Build a comments section that has the following properties:
   1. The user can add comments directly.
   2. The user can add a reply to any comment.
   3. The user can add a reply to any comment which is a reply.

## ****HTML CSS and JavaScript Interview Questions to Hire Entry-Level Candidates****

**I) HTML Interview Questions**

1. What standard HTML lists are used when designing a page?
2. What is the difference between HTML elements and tags?
3. How to insert a copyright symbol on a browser page?
4. How to create a nested webpage in HTML?
5. Can you create multi-colored text on a web page?
6. How to make a picture of a background image of a web page?
7. What is the use of an iframe tag?
8. What are the different new form element types in HTML 5?

**II) CSS Interview Questions**

1. What are the limitations of CSS?
2. How many ways can CSS be integrated into a web page?
3. What is CSS Box Model, and what are its elements?
4. Compare Grouping and Nesting in CSS?
5. Define the float property of CSS?
6. How can comments be added in CSS?
7. What is an Alternate Style Sheet?
8. What is at-rule?

**III) JavaScript Interview Questions**

1. What are the differences between the =, ==, and === operators?
2. How would you use escape characters to log quotes in a string correctly? For example, “We are “good” friends.”
3. Write a loop that prints every number divisible by three from 1-200.
4. What are the .slice() and .splice() methods, and how do they differently affect arrays?
5. How would you submit a form in JavaScript?
6. How would you write an object for a database containing the following person’s details: Jack, age 45, with hazel eyes and ID number 5000.
7. What is the DOM? And what does it do?
8. What are the various Data Types in JavaScript?
9. What is Scope in JavaScript?

**Python Interview Questions**

### 1. What is the Difference Between a Shallow Copy and Deep Copy?

Deepcopy creates a different object and populates it with the child objects of the original object. Therefore, changes in the original object are not reflected in the copy.

copy.deepcopy() creates a Deep Copy.

Shallow copy creates a different object and populates it with the references of the child objects within the original object. Therefore, changes in the original object are reflected in the copy.

copy.copy creates a Shallow Copy.

### How Is Multithreading Achieved in Python?

Multithreading usually implies that multiple [threads](https://www.simplilearn.com/tutorials/python-tutorial/python-threading" \o "threads" \t "https://www.simplilearn.com/tutorials/python-tutorial/_blank) are executed concurrently. The Python Global Interpreter Lock doesn't allow more than one thread to hold the Python interpreter at that particular point of time. So multithreading in python is achieved through context switching. It is quite different from multiprocessing which actually opens up multiple processes across multiple threads.

3. Discuss Django Architecture.

Here you can also find a [comprehensive guide on Python Django Tutorial](https://www.simplilearn.com/tutorials/python-tutorial/python-django" \o "comprehensive guide on Python Django Tutorial" \t "https://www.simplilearn.com/tutorials/python-tutorial/_blank) that is very easy to understand.

Django is a web service used to build your web pages. Its architecture is as shown:

* Template: the front end of the web page
* Model: the back end where the data is stored
* View: It interacts with the model and template and maps it to the URL
* Django: serves the page to the user

### 4. What Advantage Does the Numpy Array Have over a Nested List?

[Numpy](https://www.simplilearn.com/tutorials/python-tutorial/numpy-tutorial" \o "Numpy" \t "https://www.simplilearn.com/tutorials/python-tutorial/_blank) is written in C so that all its complexities are backed into a simple to use a module. Lists, on the other hand, are dynamically typed. Therefore, Python must check the data type of each element every time it uses it. This makes Numpy arrays much faster than lists.

Numpy has a lot of additional functionality that list doesn’t offer; for instance, a lot of things can be automated in Numpy.

### 5. What are Pickling and Unpickling?

|  |  |
| --- | --- |
| Pickling | Unpickling |
| * Converting a Python object hierarchy to a byte stream is called pickling * Pickling is also referred to as serialization | * Converting a byte stream to a Python object hierarchy is called unpickling * Unpickling is also referred to as deserialization |

If you just created a neural network model, you can save that model to your hard drive, pickle it, and then unpickle to bring it back into another software program or to use it at a later time.

The following are some of the most frequently asked Python interview questions

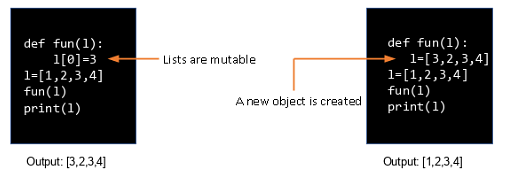
### 6. How is Memory managed in Python?

Python has a private heap space that stores all the [objects](https://www.simplilearn.com/tutorials/python-tutorial/objects-and-classes-in-python" \o "objects" \t "https://www.simplilearn.com/tutorials/python-tutorial/_blank). The Python memory manager regulates various aspects of this heap, such as sharing, caching, segmentation, and allocation. The user has no control over the heap; only the Python interpreter has access.

### 7. Are Arguments in Python Passed by Value or by Reference?

Arguments are passed in python by a reference. This means that any changes made within a function are reflected in the original object.

Consider two sets of code shown below:



In the first example, we only assigned a value to one element of ‘l’, so the output is [3, 2, 3, 4].

In the second example, we have created a whole new object for ‘l’. But, the values [3, 2, 3, 4] doesn’t show up in the output as it is outside the definition of the function.

### 8. How Would You Generate Random Numbers in Python?

To generate random numbers in Python, you must first import the random module.

The random() function generates a random float value between 0 & 1.

> random.random()

The randrange() function generates a random number within a given range.

Syntax: randrange(beginning, end, step)

Example - > random.randrange(1,10,2)