

What are the main features of Python?

- **Easy to Code/Learn High Level language** : compare to other high level languages like C,C++ Java , it also has advance features like generators , iterators and dynamic memory management
- **Easy to Read** like English , follows PEP8 standard
- **Free and Open-Source** for personal and commercial use
- **Robust Standard Library** supporting image manipulation ,database ,testing , windows and web developing . It is a leading language in Data science world
- **Interpreted** (although compilation is done when code is first executed)
- **Portable** : Cross platform
- **Support Object-Oriented and Procedure-** programming
- **Extensible especially with C++**
- **Great support for GUI** with toolkits, such as Tkinter, wxPython and JPython, which allows for GUI's easy and fast development.
- **Dynamically Typed** unlike Pascal ,C++ and many high level languages that are statically typed.

What is the difference between a list and a dictionary?

Both are mutable collections types but the dictionary is a hashed key /value set that is unordered, Dictionaries are accessed by keys while lists are ordered and are accessed via position

In your word, explain the keyword pass

Pass is null statement , it can be used to make code compile or as a placeholder for future code

What is an iterator in Python?

Any class/object that implements the `__iter__()` and `__next__()` methods is an iterator , using this one can iterate over the container to process its elements

What is unit testing?

This is a type of software testing where components or units or lines of a software are tested with the aim validating that each unit of the software performs as specified

Of the available unit test framework in Python, which is your favourite and why.

I prefer unittest because it is integrated with the Python standard library.

Name the types of arguments in Python

- default arguments
- keyword arguments
- positional arguments

- arbitrary positional arguments
- arbitrary keyword arguments

Explain what functions are.

A function is a block of code that is given a name that can be called anywhere in the program to perform the code written inside its bloc

How do you create a class in Python?

Use the class keyword , a class name and semicolon , then add a body e.g

```
class myexample:  
    pass
```

Explain what polymorphism and Inheritance are in Python OOP

Polymorphism is the ability of a method to exhibit different behaviour up and down a class hierarchy while inheritance is the a way classes takes on the attributes and methods of another.

INTERVIEW QUESTION

1. Create a two-string variable, concatenate the two variables and print out the result.
2. Create a function that calculates the power of a number. Then write a unit test to check the correctness of the function.
3. Using the OOP feature Inheritance, create a class Animal with the method sound() and then create a Cat and Dog class that inherits from the Animal class. The Cat and Dog class should override the sound class and print a different sound.
4. Writing a well-documented code creates a function that calculates simple interest
5. Write a Python program that checks if a string is a palindrome, Then optionally write a unit test to check your program's correctness.
6. Write a function that removes repeated characters from a string.
 - a. Sample Strings are:
 - b. Hello: output should be Helo
 - c. Concatenate: output should be Conaten
7. Create a program that prints out the odd numbers in an array. Sample array: a. [1, 2, 3, 4, 5, 6] b. [34, 2, 9, 91, 19,401, 0]

TECHNICAL QUESTIONS

8. Create a program that prints out the even numbers in an array. Sample array: a. [1, 2, 3, 4, 5, 6] b. [34, 2, 9, 91, 19,401, 0]
9. Create a function that converts any string value to uppercase, then write a unit test that checks the function's correctness.10.
10. Create a function that converts any string value to a Sentence case, then write a unit test that checks the function's correctness.

TESTIFY AUTOMATION SCHOOLSELENIUM WEB AUTOMATION

1. Using the chrome browser navigate to <https://www.facebook.com/> fill in the email/phone and password text box then click the Login Button.
2. Using the firefox browser navigate to <https://www.google.com/> enter the text Python in the search box, then send the Enter key. Get the text from the Wikipedia brief on the right side and print the value in the console.

TESTIFY AUTOMATION SCHOOLSELENIUM WEB AUTOMATION

3. Navigate any browser to <https://weather.com/> get the current temperature and print it out in the terminal. Then print out the temperature for Morning, Afternoon, Evening, and Overnight.
4. Navigate to <https://www.bbc.com/> and print out the top 10 latest news from the home page.

TESTIFY AUTOMATION SCHOOLSELENIUM WEB AUTOMATION

5. Using any browser navigate to any Youtube video of your choice, allow your script to wait for the comments to load then get the first two comments, and print them in the terminal.