1). What is File function in python? What is keywords to create and write file.

File HandlingThe key function for working with files in Python is the open() function.

The open() function takes two parameters, filename, and mode.

2). Explain Exception handling? What is an Error in Python?

Exception handling in Python is a process of resolving errors that occur in a program. This involves catching exceptions, understanding what caused them, and then responding accordingly.

Exceptions are errors that occur at runtime when the program is being executed.

Syntax Errors

 Exceptions

 Handling Exceptions

Raising Exceptions

Exception Chaining

3). How many except statements can a try-except block have? Name Some built-in exception classes:

You can have multiple try blocks in a program but only one except statement with each try block. If you want to catch multiple errors, just write.

except This and That and Those:

do this.

Add your required exception instead of the example I have given.

4). When will the else part of try-except-else be executed?

finally statement that includes a 'else' block. The 'else' block is executed when there are no exceptions raised within the try block.

The 'else' block is useful when you want to perform specific actions when no exceptions occur.

5). Can one block of except statements handle multiple exception?

Yes, a single block of except statements in Python can handle multiple exceptions. This feature allows you to handle different types of exceptions using a single block of code.

6). When is the finally block executed?

A finally block always executes, regardless of whether an exception is thrown. The following code example uses a try / catch block to catch an Argument Out Of Range Exception. The Main method creates two arrays and attempts to copy one to the other

7). What happens when „1‟== 1 is executed?

we get a False when statement run

8). How Do You Handle Exceptions With Try/Except/Finally In Python? Explain with coding snippets.

* Try: This block will test the excepted error to occur
* Except:  Here you can handle the error
* Else: If there is no exception then this block will be executed
* Finally: Finally block always gets executed either exception is generated or not

9). What are oops concepts? Is multiple inheritance supported in java

Java disallows multiple inheritance to avoid the complexity and ambiguity associated with it, particularly the "diamond problem," where a class inherits from two classes that have a common ancestor, leading to conflicts in the inheritance of methods.

10). How to Define a Class in Python? What Is Self? Give An Example Of A Python Class

Self represents the instance of the class. By using the “self”  we can access the attributes and methods of the class in python. It binds the attributes with the given arguments.

Whenever you call a method of an object created from a class, the object is automatically passed as the first argument using the “self” parameter. This enables you to modify the object’s properties and execute tasks unique to that particular instance.

11). Write a Python class named Rectangle constructed by a length and width and a method which will compute the area of a rectangle

In this article, we will see how to find the area of a rectangle in Python if the length and width of a rectangle are given.

Formula of the Area of Rectangle

*Area = Width \* Height*

Program To Find Area of Rectangle in Python

Below are some of the ways by which we can find the area of the rectangle in python:

* Simple Multiplication
* Using a Class
* Using a Lambda Function
* Using a Named Tuple

12). Write a Python class named Circle constructed by a radius and two methods which will compute the area and the perimeter of a circle

Area of circle is defined as pi\*r\*r where pi is a constant whose value is (22/7 or 3.142) and r is the radius of a circle.

Formula to calculate the area of circle is: Area = pi\*r\*r

The perimeter of a circle is also known as the circumference. It refers to the total length of the boundary or the distance around the circle.

Formula to calculate the area of Perimeter = 2 \* π \* radius

13). Explain Inheritance in Python with an example? What is init? Or What Is A Constructor In Python?

One of the core concepts object- oriented programming (OOP) languages is inheritance. It is a mechanism that allows you to create a hierarchy of classes that share a set of properties and methods by deriving a class from another class. Inheritance is the capability of one class to derive or inherit the properties from another class.

Inheritance allows you to inherit the properties of a class, i.e., base class to another, i.e., derived class. The benefits of Inheritance in python are as follows:

* It represents real-world relationships well.
* It provides the reusability of a code. We don’t have to write the same code again and again. Also, it allows us to add more features to a class without modifying it.
* It is transitive in nature, which means that if class B inherits from another class A, then all the subclasses of B would automatically inherit from class A.
* Inheritance offers a simple, understandable model structure.
* Less development and maintenance expenses result from an inheritance.

14). What is Instantiation in terms of OOP terminology?

Instantiation is a core concept in object-oriented programming. It's the process where you create an instance of a class, which essentially means creating an object from a blueprint class.

the creation of a new instance of the class is called instantiation. Memory is allocated for that object and the class constructor runs. Programmers can instantiate objects on the heap with a new keyword or on the stack as a variable declaration. Whenever an object of that class is instantiated, the compiler will call special class members.

15). What is used to check whether an object o is an instance of class A?

Instance returns True if the object is an instance of the specified class or a subclass of that class, and False otherwise.

Instance is useful when you want to perform different actions based on the type of an object or when you need to ensure that a variable contains a specific type of data, such as strings, dictionaries, or custom objects.

16). What relationship is appropriate for Course and Faculty?

Improving students' relationships with teachers has important, positive and long-lasting implications for both students' academic and social development. Solely improving students' relationships with their teachers will not produce gains in achievement. However, those students who have close, positive and supportive relationships with their teachers will attain higher levels of achievement than those students with more conflict in their relationships.