Advance python

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

**Ans** .

Python file object provides methods and attributes to access and manipulate files. Using file objects, we can read or write any files. Whenever we open a file to perform any operations on it, Python returns a file object. To create a file object in Python use the built-in functions, such as open('filename','w' )

13.Explain Exception handling? What is an Error in Python?

ans.

We can handle it at runtime by using `try` and `except` blocks.

Errors are problems that occur in the program due to an illegal operation performed by the user or by the fault of a programmer, which halts the normal flow of the program.

14.How many except statements can a try-except block have? Name Some

built-in exception classes?

Ans.

It's have more than zero

* ZeroDivisionError- Raised when the second operator in a division is zero
* ArithmeticError- Raised when an error occurs in numeric calculations
* AssertionError- Raised when an assert statement fails
* AttributeError- Raised when attribute reference or assignment fails
* Exception- Base class for all exceptions
* EOFError- Raised when the input() method hits an "end of file" condition (EOF)
* FloatingPointError -Raised when a floating point calculation fails
* GeneratorExit- Raised when a generator is closed (with the close() method)
* ImportError -Raised when an imported module does not exist
* IndentationError- Raised when indentation is not correct
* IndexError- Raised when an index of a sequence does not exist
* KeyError -Raised when a key does not exist in a dictionary
* KeyboardInterrupt -Raised when the user presses Ctrl+c, Ctrl+z or Delete
* LookupError- Raised when errors raised cant be found
* MemoryError- Raised when a program runs out of memory
* NameError -Raised when a variable does not exist
* NotImplementedError- Raised when an abstract method requires an inherited class to override the method
* OSError -Raised when a system related operation causes an error
* OverflowError- Raised when the result of a numeric calculation is too large
* ReferenceError- Raised when a weak reference object does not exist
* RuntimeError- Raised when an error occurs that do not belong to any specific exceptions

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

Ans.

The else part is executed when no exception occurs.

16.Can one block of except statements handle multiple exception?

Ans.

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.

17.When is the finally block executed?

Ans.

The finally block always executes when the try block exits. This ensures that the finally block is executed even if an unexpected exception occurs.

18.What happens when „1‟== 1 is executed?

Ans.

It simply evaluates to False and does not raise any exception.

19.How Do You Handle Exceptions With Try/Except/Finally In Python?

Explain with coding snippets.

Ans.

First try clause is executed i.e. the code between try and except clause. If there is no exception, then only try clause will run, except clause will not get executed. If any exception occurs, the try clause will be skipped and except clause will run.

eg: <https://github.com/mohsinkkc/Python/blob/main/advance/try%20and%20except.py>

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

Ans.

Major OOP (object-oriented programming) concepts in Python include Class, Object, Method, Inheritance, Polymorphism, Data Abstraction, and Encapsulation

Multiple inheritance is not supported by Java using classes, handling the complexity that causes due to multiple inheritances is very complex.

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

Ans. To define a class we use class keyword.

SELF represents the instance of class. This handy keyword allows you to access variables, attributes, and methods of a defined class in Python. The self parameter doesn't have to be named “self,” as you can call it by any other name.

eg: <https://github.com/mohsinkkc/Python/blob/main/advance/showing%20number%20using%20class.py>

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

Ans.

Inheritance relationship defines the classes that inherit from other classes as derived, subclass, or sub-type classes.

eg: <https://github.com/mohsinkkc/Python/blob/main/advance/Inheritance%20Class.py>

Constructors are generally used for instantiating an object. The task of constructors is to initialize(assign values) to the data members of the class when an object of the class is created. In Python the \_\_init\_\_() method is called the constructor and is always called when an object is created.

28.What is Instantiation in terms of OOP terminology?

Ans.The creation of an instance of a class.

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

Ans.

Using isinstance() function, we can test whether an object/variable is an instance of the specified type or class such as int or list. In the case of inheritance, we can checks if the specified class is the parent class of an object.

eg: isinstance(A, int) to check if x is an instance of a class int .