

Python_advance_assignment_7

Q1. What is the purpose of the try statement?

In []:

Ans: **try** statement **is** used **for** exception handling **in** python. it consists of a block of risky statements which might cause an exception during runtime. if code within **try** block raises exception, then the exception will be reverted to the corresponding **except** block **if** multiple **except** blocks are present, **else** it will be reverted to the default **except** block. In short **try and except in** union avoid programs **from** crashing during runtime due to exceptions.

In [1]:

```
try:
    print(10/0)
except ZeroDivisionError:
    print('Division by Zero is Not Possible')
```

Division by Zero is Not Possible

Q2. What are the two most popular try statement variations?

In []:

Ans: The Popular **try** statement variations are:

```
try, except
try, except, finally
try, except, finally, else
```

The **try** block **is** used to check code **for** exceptions during runtime. ie code inside **try** block will execute completely when there **is** no error **in** the program. Whereas the code inside **except** block will execute whenever the program encounters some error **in** the preceding **try** block.
Whereas the code enters the **else** block **if and only if** the **try** clause does **not raise and** exception.
The code **in** the **finally** block will execute irrespective of exception.

Q3. What is the purpose of the raise statement?

In []:

Ans: **raise** statement **is** used to trigger an exception explicitly, **if** a certain condition **is not as** per requirement of programmer.
raise statement helps **in** triggering exception **as** per programming logic.

Q4. What does the assert statement do, and what other statement is it like?

In []:

Ans: There are few assertions that programmer always want to be true to avoid code failure.

This **type** of requirement **is** fulfilled by **assert** statement. This statement takes a boolean condition output of which **is True**, Further Program Executes.

If output of **assert** statement **is False**, it raises an Assertion Error.

Q5. What is the purpose of the with/as argument, and what other statement is it like?

In []:

Ans: **with/as** statement simplifies use of file handling **in** python. When we use a **with** statement **for** file reading, there **is** no need **for** programmer to explicitly take care of activities like resource deallocation **and** file closing by using `file.close()` method. **with** statement itself ensures proper acquisition **and** release of resources.

This avoids triggering of exceptions **if** file closing **is** unknowingly forgotten **in** the code execution.

with `open('sample_file.txt', 'w')` as file: file.write('Hello World')