

Q2 . Summarize DataClass in Python

A dataclass in Python is a decorator (@dataclass) that simplifies the creation of classes primarily used to store data. It automatically generates common methods like `__init__`, `__repr__`, `__eq__`, etc.

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Q3. Summarize Multi Inheritance in Python

Multiple Inheritance: in Python allows a class to inherit from multiple parent classes.

Method Resolution Order (MRO): MRO determines the sequence in which base classes are searched for a method

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Q4. Dictionary Comprehension Example

Dictionary comprehension is a concise way to create dictionaries in Python. It allows you to generate a dictionary in a single line using a compact syntax.

Ex:

```
squares = {x: x*x for x in range(1, 6)}  
print(squares) # Output: {1: 1, 2: 4, 3: 9, 4: 16, 5: 25}
```

With filter:

```
even_squares = {x: x*x for x in range(1, 6) if x % 2 == 0}  
print(even_squares) # Output: {2: 4, 4: 16}
```