

## Python OOPs Coding Questions for Freshers

1. Create a class Person with attributes name and age. Add a method to display them.
2. Write a class Rectangle with length and width. Add a method to calculate area and perimeter.
3. Create a class Student with constructor to initialize name and marks. Add a method to check pass/fail.
4. Create a class Book: initialize title, author, and price. Add a method to display details.
5. Create a base class Vehicle with method start(). Inherit a class Car from it with a method drive().
6. Create class Employee. Manager and Developer inherit from it. Add unique methods for each.
7. Override show() method in child class to show different message than parent class.
8. Create class Account with private attribute balance. Add methods to deposit/withdraw and get balance safely.
9. Write two classes Cat and Dog, both have a method speak(). Call speak() on both objects in a loop.
10. Create a class TemperatureConverter with static method celsius\_to\_fahrenheit(c) and fahrenheit\_to\_celsius(f).
11. Create a class User with class variable user\_count. Track how many objects are created using a class method.
12. Use ABC module to create abstract class Shape with method area(). Inherit classes like Circle, Square and implement area() accordingly.
13. Build a mini banking system where a Customer can create an account, deposit, and check balance. Use encapsulation and class methods.
14. Create a class Product, subclass Electronics and Clothing. Use polymorphism to call a common method get\_discounted\_price() differently.