

Assignment-3

1. Create a simple class `Person` with name and age as attributes.
2. Add a method to the `Person` class that prints a greeting.
3. Create a class with a class variable and instance variable.
4. Create a private attribute in a class and access it using a method.
5. Create a class with a method that returns the square of a number.
6. Create two objects of a class and demonstrate that they are independent.
7. Create a class and use a method to set its attributes.
8. Demonstrate use of `isinstance()` with a class.
9. Demonstrate single inheritance in Python.
10. Create a base class and derive two child classes with different methods(multi-level inheritance).
11. Demonstrate method overriding in inheritance.
12. Use `super()` to call a parent class method.
13. Create an abstract base class using `abc` module.
14. Demonstrate multiple inheritance in Python.
15. Demonstrate encapsulation using getter and setter.
16. Write a program to demonstrate polymorphism with a common method.
17. Create a class `Employee` with a method to display the number of employees created.
18. Demonstrate constructor overloading using default arguments.
19. Implement a bank account system with deposit and withdrawal methods.
20. Create a class `Rectangle` with method to calculate area and perimeter.