

## Python Assignment & Tutorial - IV

### Assignment Questions

1. Explain creating classes and instance objects with examples.
2. What is the overview of OOP and explain the advantages and disadvantages of OOP?  
Demonstrate the abstraction mechanism in Python with an example.
3. What is Inheritance? Describe types of Inheritance with examples.
4. Does Python Support Operator overloading? Justify with an example program.
5. What is Polymorphism? Explain Method overriding and Method overloading with examples.

### Tutorial Questions:

6. Demonstrate Data modeling using classes with an example.
7. Demonstrate the usage of super(), issubclass() and isinstance() methods in Python.
8. What are constructor and destructor in classes? Demonstrate them with a program.
9. What are built-in class attributes in Python? Explain adding and retrieving dynamic class attributes.
10. Demonstrate the design of a case study with classes.

### List of Programs

1. Write Python program that overloads + operator to add 2 objects of a class
- 2.