



Python Training.....

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# Agenda

- Object Oriented Programming Pillars
- Methods in Classes
- Object attribute v/s Class attribute
- Public, Private attributes & functions
- Assignments



# Object oriented programming pillars

- Pillars
  - Abstraction
  - Encapsulation
  - Inheritance
  - Polymorphism
- What is class ?
- What is object ?
  - State, behavior & identity



# Methods in Classes

- Manager
  - Constructor : `__init__`
  - Destructor : `__del__`
- Mutator
  - Setter Methods
  - e.g `SetName`
- Accessor
  - Getter Methods
  - e.g `GetName`
- Overloaded
  - `__getslice__`
  - `__getitem__`
  - `__setitem__`
  - `__add__`
  - `__sub__`
  - `__div__`
  - `__mul__`
  - `__repr__` etc,



# Private in Python

- `__` prefixed to variable or function makes it private.
- `__` at begin & end is for builtin methods.
- No protected status



# Assignments

- Write a simple BankAccount class. Account number should be auto-generated. Implement withdraw and deposit methods for the same. Write a menu driven program to perform account operations.
- Write a base class Shape which has constructor, destructor, Draw, Area methods. Create Square, Rectangle & Circle as the derived classes of the same.
- Write a menu driven program for maintaining Employee record.