Experiment 7

1) A Program showing single inheritance in which two subclasses are derived from a single base class

```
class bank(object):
  cash = 100000000
  @classmethod
  def available_cash(cls):
    print(cls.cash)

class bankofindia(bank):
  pass

class statebank(bank):
    cash = 20000000
    @classmethod
    def available_cash(cls):
      print(cls.cash+bank.cash)

a = bankofindia()
a.available_cash()
s = statebank()
s.available_cash()
```

```
100000000
120000000
```

2) A Python program to implement multiple inheritance using two base classes

```
class father:
  def height(self):
    print("height is 6.0 foot")

class mother:
  def color(self):
    print("Color is Brown")

class child(father, mother):
  pass

c = child()
print("Child\'s Inheritance Properties: ")
c.height()
c.color()
```

```
Child's Inheritance Properties:
height is 6.0 foot
Color is Brown
```

3) A python program to implement Multilevel Inheritance

```
class grandfather:
  def __init__(self, grandfathername):
    self.grandfathername = grandfathername

class father(grandfather):
  def __init__(self, fathername, grandfathername):
    self.fathername = fathername

    grandfather.__init__(self, grandfathername)

class son(father):
  def __init__(self, sonname, fathername, grandfathername):
    self.sonname = sonname
    father.__init__(self, fathername, grandfathername)

  def print_name(self):
    print("GrandFather Name: ", self.grandfathername)
    print("Father Name: ", self.fathername)
    print("Son Name: ", self.sonname)

s1 = son('Prince', 'Rampal', 'Lal Mani')
print(s1.grandfathername)
s1.print_name()
```

```
Lal Mani
GrandFather Name:  Lal Mani
Father Name:  Rampal
Son Name:  Prince
```