SESSION 4 PROGRAMS(ObjectOrientedProgramming Constructors/this keyword)

Program 1

```
//Program to Explain use of Different Constructor Types & this keyword
public class Employee {

    String empName;//ClassLevel variable accessed by this keyword
    String empLocation;//ClassLevel variable accessed by this keyword

    //Default Constructor
    Employee()
    {

    }

    //Parametrized Constructor -- 1 Parameter
    Employee(String empName)//Method's Local variable
    {
       this.empName=empName ;//this is a object variable that refers to the
       current object.


    }

    //Parametrized Constructor-- 2 Parameters
    Employee(String empName , String empLocation)//Method's Local variables
    {
       this.empName = empName;//this is a object variable that refers to the
       current object.

       this.empLocation=empLocation; //this is a object variable that refers to
       the current object.
    }


       public static void main(String[] args) {

              //Create 3 objects to represent 3 employees

              Employee akshay = new Employee() ;//No data set in defalut
              constructor

              Employee aniket = new Employee("Aniket") ; //Name is set in 1
              parameter constructor

              Employee vijay = new Employee("Vijay","Solapur") ; //Name & Location
              are set in 2 Parameters constructor

              //Display 3 employees data set using constructors
              System.out.println("Akshay's Name is "+akshay.empName);
              System.out.println("Aniket's Name is "+aniket.empName);
              System.out.println("Vijay's Location is "+vijay.empLocation);


       }

}
```

Access Modifiers(public/default/private)

```
public class EmployeeDetails {

            //default variables accessible in the same package only
             String empName;
           String empLocation;

              //public Method accessible everywhere
            public int calculateSalary(int perdaysal, int attendance)
            {
                  int salary = perdaysal * attendance ;
                  return salary ;

            }

                  //default Method accessible in same package only
             int calSal(int perdaysal, int attendance)
                  {
                        int salary = perdaysal * attendance ;
                        return salary ;

                  }

              //private Method accessible in the same class only
            private int[] calculateTaxNPF(int salary)
            {
                  int tax = salary/10;
                  int pf  = salary/20;
                  int[] taxnpf = {tax,pf};
                  return taxnpf;

            }

      }

}
```

SESSION 4 ASSIGNMENTS

1. **Write a Program to represent Car Details . Find & define Car Class's attributes & Methods. Represent Maruti800,Innova,HondaCity cars by different objects of Car class in the main method . From the Main method , call other methods of car class .Use default & parametrized constructors for objects initialization . Display different Objects data .**

2. **Create a class Bank . Write3 methods as below :**
   - **i) private debit(){some code }**
   - **ii) public credit(){some code }**
   - **iii) checkBalance(){some code }**

   Now Create a Main class in other package.Try accessing Bank class's all methods in the Main class by creating Bank class object.Observe the results.