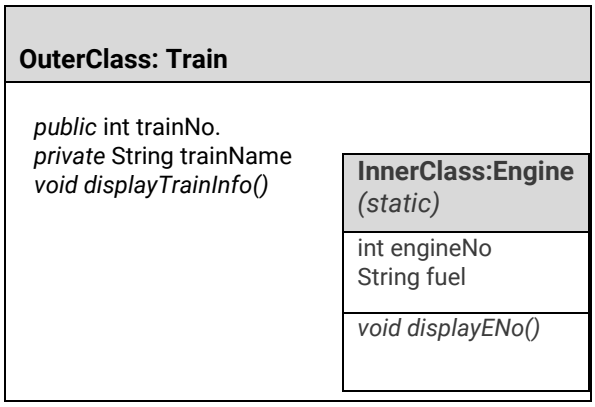
Darshan UNIVERSITY

OOPJ Assignment-6 (Unit-2)

Program: Write a java program to demonstrate static nested inner class as shown in diagram. Total 3 class: Train,Engine and TrainMain class. Create object of both outer and inner class in psv_main(). Call display ENo() from psvm using inner class object to print trainNo, trainName and EngineNo.



Lecture Program 19/2/25

```
//Program1: non-static nested class
class Aout{
    static private int a=100;//inner class can access private member
   Aout(){
      System.out.println("Aout constructor");
      Bln b1=new Bln();
      b1.add1();
   }
   class Bln{//non-static nested class
      int b=20;
      Bln(){
         System.out.println("Bln constructor");
      }
      void add1(){
         System.out.println("Bln:a+b="+(a+b)); inner class can access private member
      }
   }
}
public class NestingDemo {
   public static void main(String[] args) {
      Aout a1=new Aout();
      //Bln b1=new Bln();//unknown class:can't access inner class
   }
}

//program-2: Static Nested class
class Aout{
   static private int a=100;
   int b=500;
  public Aout(){
     System.out.println("aout constructor");
  }
  static class Bln{//non-static nested class
     int b=20;
     public Bln(){
        System.out.println("Bln constructor");
     }
     public void add1(int a,int b){
        System.out.println("Bln:a+b="+(a+b)); //1+2=3
        System.out.println("a+this.b="+(a+this.b));//1+300=301
     }
  }
}
public class NestingDemo {
  public static void main(String[] args) {
     Aout a1=new Aout();//call outer class constructor
     Aout.Bln b1=new Aout.Bln();//call constructor of inner class
     b1.b=300;//set value for var of inner class
     b1.add1(1,2);//calling method of inner class
  }
}
```