1. Write a program to create a two packages employeepackage and departmentpackage and under employeepackage create classes like Employee, Manager, Admin Under departmentpackage create class by name Department and Project.

EMPLOYEE CLASS:

```
package employeepackage;

public class Employee {

public int empid;

private String empname;

public int empage;

Employee(int empid,String empname,int empage)

{

this.empid=empid;

this.empname=empname;

this.empage=empage;

}

void display() {

System.out.println("employee id: "+empid);

System.out.println("employee name: "+empname);

System.out.println("employee age: "+empage);

}

}
```

MANAGER CLASS:

```
package employeepackage;

public class Manager {

public int managerid;

private String managername;

public int managerage;
```

```java
public float managersalary;
 Manager(int managerid,String managername,int managerage,float managersalary)
{
 this.managerid=managerid;
 this.managername=managername;
this.managerage=managerage;
this.managersalary=managersalary;
}
void displayManager()
 {
 System.out.println("manager id: "+managerid);
 System.out.println("manager name: "+managername);
 System.out.println("manager age: "+managerage);
 System.out.println("manager salary: "+managersalary);
}
}
```

DEPARTMENT CLASS:

```java
package departmentpackage;
public class Department \
{
public int deptid;
 private String deptname;
public int deptcount;
Department(int deptid,String deptname,int deptcount)
{
this.deptid=deptid;
 this.deptname=deptname;
this.deptcount=deptcount;
 }
```

```java
 void displayDepartment()

{

System.out.println("department id: "+deptid);

 System.out.println("department name: "+deptname);

 System.out.println("department count: "+deptcount);

}

 }
```

2. Create a Main class to test the above classes.

ADMIN CLASS:

```java
package employeepackage;

public class Admin {

public static void main(String[] args)

{

System.out.println("Displaying employee details");

Employee employeedetails=new

Employee(6543,"sowmiya",21);

employeedetails.display();

 System.out.println("Displaying manager details");

managerdetails=new

Manager(8675,"suji",45,60000f);

managerdetails.displayManager();

}

 }
```

PROJECT CLASS:

```java
package departmentpackage;

public class Project

{
```

```java
private String projecttype;

public int projectcount;

Project(String projecttype,int projectcount);

{

this.projecttype=projecttype;

this.projectcount=projectcount;

}

void displayProject()

{

System.out.println("project type: "+projecttype);

System.out.println("project count: "+projectcount);

}

public static void main(String[] args)

{

System.out.println("displaying department details");

Department department=new Department(345,"IT",600);

department.displayDepartment();

System.out.println("displaying project details");

Project project=new Project("application",2);

project.displayProject();

}

}
```

3. Write a program to check how many Shape objects created.

```java
public class ShapeObject

{

private static int count;

public ShapeObject()
```

```java
    {
    count++;
    }
    public static void main(String[] args)
    {
    ShapeObject square = new ShapeObject();
ShapeObject rectangle = new ShapeObject();
    ShapeObject triangle = new ShapeObject();
    ShapeObject circle = new ShapeObject();
    System.out.print("Number of Objects created: " + ShapeObject.count);
    }
    }
```