GENERATING EMPLOYEE PAYROLL DETAILS

AIM:

To develop a java application for generating pay slips of employees with their gross and net salary.

ALGORITHM:

1. The package keyword is used to create a package in java.
2. Create a class Employee inside a package name employee.
3. Class Employee contains Emp_name, Emp_id, Address, Mail_id, Mobile_no as members.
4. By using Constructor initialize the instance variable of Employee class and display method is used to print employee details.
5. Create classes Programmer, AssistantProfessor, AssociateProfessor and Professor that extends Employee class and define necessary constructor for sub classes.
6. Each sub classes has its own instance variable like bPay and des.
7. Override the paySlip method in each sub classes to calculate the gross and net salary
8. By using super () method subclasses initialize the super class constructor.
9. Import employee package and create the object for Empolyee class.
10. Create different Employee object to add ArrayList<> classes.
11. DisplayEmployee method is used to display all employee playSlip details

PROGRAM:

*//For Packages, Folder Name should be **employee** //File Name should be **Employee.java***

```
package employee; public
class Employee
 {
   private String name;
private String id;    private
String address;    private
String mailId;    private
String mobileNo;
   public Employee(String name, String id, String address, String mailId, String mobileNo)
   {
```

```java
        this.name= name;
this.id= id;        this.address=
address;        this.mailId=
mailId;
        this.mobileNo= mobileNo;
    }
    public void display()
    {
      System.out.println("Emp_Name : "+ name + "\t" + "Emp_id : "+ id);
      System.out.println("Address : " + address);
      System.out.println("Mail_id : "+ mailId + "\t" + "Mobile_no : " + mobileNo);
    }
    public void paySlip()
    {
    }
}
```

*//For Packages, Folder Name should be **employee** //File
Name should be **Programmer.java***

```java
package employee;
public class Programmer extends Employee
{    private float bPay;
private String des;
public Programmer(String name, String id, String address, String mailId, String mobileNo,
float bPay, String des)
 {
      super(name, id, address, mailId, mobileNo);
this.bPay= bPay;        this.des= des;
    }
    public void paySlip()
    {
      float da=bPay*97/100;        float
hra=bPay*10/100;        double
grossSalary=bPay + da + hra;        float
pf=bPay*12/100;        double
scf=bPay*0.1/100;
      double netSalary=grossSalary - pf - scf;
      System.out.println("------------ Employees Pay Slips ------------");
super.display();
      System.out.println("Designation: "+des);
```

```java
        System.out.println("Basic_Pay: "+bPay);
        System.out.println("Gross Salary : "+ grossSalary + "\t" + "Net Salary : " + netSalary);
 System.out.println("------------ End of the Statements -----------");
    }
}
```

*//For Packages, Folder Name should be **employee** //*
*File Name should be **AssistantProfessor.java***

```java
package employee;
public class AssistantProfessor extends Employee
{    private float bPay;
private String des;
public AssistantProfessor(String name, String id, String address, String mailId, String
mobileNo, float bPay, String des)
  {
      super(name, id, address, mailId, mobileNo);
this.bPay= bPay;        this.des= des;
     }
   public void paySlip()
    {
      float da=bPay*97/100;         float
hra=bPay*10/100;        double
grossSalary=bPay + da + hra;         float
pf=bPay*12/100;        double
scf=bPay*0.1/100;
      double netSalary=grossSalary - pf - scf;
      System.out.println("------------ Employees Pay Slips ------------");
super.display();
      System.out.println("Designation: "+des);
      System.out.println("Basic_Pay: "+bPay);
      System.out.println("Gross Salary : "+ grossSalary + "\t" + "Net Salary : " + netSalary);
System.out.println("------------ End of the Statements -----------");
    }
}
```

*//For Packages, Folder Name should be **employee** //File*
*Name should be **AssociateProfessor.java***

```java
package employee;
```

```java
public class AssociateProfessor extends Employee
{
   private float bPay;
private String des;
public AssociateProfessor(String name, String id, String address, String mailId, String
mobileNo, float bPay, String des)
{
     super(name, id, address, mailId, mobileNo);
     this.bPay= bPay;
this.des= des;
   }
   public void paySlip()
   {
     float da=bPay*97/100;        float
hra=bPay*10/100;        double
grossSalary=bPay + da + hra;        float
pf=bPay*12/100;        double
scf=bPay*0.1/100;
     double netSalary=grossSalary - pf - scf;
     System.out.println("------------ Employees Pay Slips ------------");
super.display();
     System.out.println("Designation: "+des);
     System.out.println("Basic_Pay: "+bPay);
     System.out.println("Gross Salary : "+ grossSalary + "\t" + "Net Salary : " + netSalary);
System.out.println("------------ End of the Statements -----------");
   }
}
```

*//For Packages, Folder Name should be **employee** //File
Name should be **Professor.java***

```java
package employee;
public class Professor extends Employee
{    private float bPay;
private String des;
public Professor(String name, String id, String address, String mailId, String mobileNo, float
bPay, String des)
{
     super(name, id, address, mailId, mobileNo);
this.bPay= bPay;        this.des= des;
   }
```

```java
  public void paySlip()
  {
      float da=bPay*97/100;        float
hra=bPay*10/100;        double
grossSalary=bPay + da + hra;        float
pf=bPay*12/100;        double
scf=bPay*0.1/100;
      double netSalary=grossSalary - pf - scf;
      System.out.println("------------ Employees Pay Slips ------------");
      super.display();
      System.out.println("Designation: "+des);
      System.out.println("Basic_Pay: "+bPay);
      System.out.println("Gross Salary : "+ grossSalary + "\t" + "Net Salary : " + netSalary);
System.out.println("------------ End of the Statements -----------");
   }
}
```

*//File Name should be **Emp.java** separate this file from above folder*

```java
import employee.*; import
java.io.IOException; import
java.util.ArrayList; import
java.util.Scanner; public class
Emp
{
  Employee e;
  ArrayList<Employee> obj= new ArrayList<>();
Scanner get= new Scanner(System.in);     public
void addEmployee()
  {
      System.out.println("Enter the Emp_Name:");
      String name = get.next();
      System.out.println("Enter the Emp_id:");
      String id = get.next();
      System.out.println("Enter the Address:");
      String address = get.next();
      System.out.println("Enter the Mail_id:");
      String mailId = get.next();
      System.out.println("Enter the Mobile_no:");
      String mobileNo = get.next();
      System.out.println("Enter the Designation:");
```

```java
        String des = get.next();
        System.out.println("Enter the Basic_Pay:");
float bPay = get.nextFloat();
        if(des.equalsIgnoreCase("Programmer"))
        {
            e= new Programmer(name, id, address, mailId, mobileNo, bPay, des);
obj.add(e);
        }
        else if(des.equalsIgnoreCase("AssistantProfessor"))
        {
            e= new AssistantProfessor(name, id, address, mailId, mobileNo, bPay, des);
obj.add(e);
        }
        else if(des.equalsIgnoreCase("AssociateProfessor"))
        {
            e= new AssociateProfessor(name, id, address, mailId, mobileNo, bPay, des);
obj.add(e);
        }
        else if(des.equalsIgnoreCase("Professor"))
        {
            e= new Professor(name, id, address, mailId, mobileNo, bPay, des);
obj.add(e);
        }
    }
    public void displayEmployee()
    {
        for(Employee e:obj)
        {
            e.paySlip();
        }
    }
    public static void main(String args[]) throws IOException
    {
        Emp x= new Emp();
String check;
        do
        {
            x.addEmployee();
            System.out.println("Do you wnat continue press 'y'");
check=x.get.next();
        }
```

```
        while(check.equalsIgnoreCase("y"));
 x.displayEmployee();
   } }
```

NOTE:

To Compile, go to *employee* *folder*
javac Employee.java   javac
Programmer.java   javac
AssistantProfessor.java   javac
AssociateProfessor.java   javac
Professor.java

To Compile, it should be outside the package
    javac Emp.java
To Run   *java*
Emp

OUTPUT:

D:\>javac Emp.java

D:\>java Emp Enter the
Emp_Name: Suresh
Enter the Emp_id:
E708
Enter the Address:
cuddalore Enter the
Mail_id:
suresh708@tgarments.org
Enter the Mobile_no:
7894561230
Enter the Designation:
Programmer
Enter the Basic_Pay:
7500 Do you wnat continue
press 'y' y Enter the Emp_Name:
Rakesh Enter the Emp_id:
E705
Enter the Address: pondy
Enter the Mail_id:
rakesh@gmail.com Enter
the Mobile_no:
4567891230
Enter the Designation:
Professor Enter the
Basic_Pay:
15000 Do you wnat continue
press 'y' y
Enter the Emp_Name:
kumar Enter the
Emp_id:

E405
Enter the Address: madurai
Enter the Mail_id: kumarat@ymail.com Enter the Mobile_no:
1237894560
Enter the Designation:
AssistantProfessor Enter
the Basic_Pay:
18000
Do you wnat continue press 'y' y
Enter the Emp_Name: Naresh
Enter the Emp_id:
E102
Enter the Address:
villupuram Enter the
Mail_id:
nar12@rediffmail.com
Enter the Mobile_no:
9873214560
Enter the Designation:
AssociateProfessor Enter
the Basic_Pay:
20000
Do you wnat continue press 'y'
n

```
------------ Employees Pay Slips ------------ Emp_Name :
Suresh      Emp_id : E708
Address : cuddalore
Mail_id : suresh708@tgarments.org      Mobile_no : 7894561230
Designation: Programmer
Basic_Pay: 7500.0
Gross Salary : 15525.0  Net Salary : 14617.5
------------ End of the Statements -----------
------------ Employees Pay Slips ------------ Emp_Name :
Rakesh      Emp_id : E705
Address : pondy
Mail_id : rakesh@gmail.com      Mobile_no : 4567891230
Designation: Professor
Basic_Pay: 15000.0
Gross Salary : 31050.0  Net Salary : 29235.0
------------ End of the Statements -----------
------------ Employees Pay Slips ------------ Emp_Name :
kumar      Emp_id : E405
Address : madurai
Mail_id : kumarat@ymail.com      Mobile_no : 1237894560
Designation: AssistantProfessor
Basic_Pay: 18000.0
Gross Salary : 37260.0  Net Salary : 35082.0
------------ End of the Statements -----------
------------ Employees Pay Slips ------------ Emp_Name :
Naresh      Emp_id : E102
Address : villupuram
Mail_id : nar12@rediffmail.com  Mobile_no : 9873214560
Designation: AssociateProfessor
Basic_Pay: 20000.0
Gross Salary : 41400.0  Net Salary : 38980.0
------------ End of the Statements -----------

D:\>
```

RESULT:

Thus the application for generating pay slips of employees with their gross and net salary has been successfully executed.