

Assignment Problem 2
PGDCA II Semester
PS02CDC33: Object Technology
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Employee Payslip

1. Define a class of Emp with attribute as follows.

integer empno → defines employee identification number

String empname → defines name of employee in maximum 10 characters

double bpay → basic pay of employee

2. Define at least one constructor having above three parameters of the Emp class.

3. Also define a method in the Emp class as follows:

void print() → prints employee data with salary details.

You may use your own formulas and formats to calculate the gross and net pay and print the salary slip of given employee. The salary slip contains employee number, employee name, basic pay, joining date, gross and net salaries.

4. In the main method, define any 2 employees.

5. Initialize the content using constructor develop in the above class .

6. Print the salary slips of all the employees.

UML Class Diagram

Emp
empno: integer empname: String bpay: double
Emp() print() main()

UML Instance Diagrams

e1 (Emp)
empno: 1 empname: XXX XXX bpay: 10000.00
Emp() print() main()

e2 (Emp)
empno: 2 empname: YYY YYY bpay: 50000.00
Emp() print() main()

Solution

```
package emp;
public class Emp {
    int eno;    String ename;    double bpay; // encapsulated attributes..

    Emp (int eno, String ename, double bpay) // a constructor
    { this.eno= eno; this.ename= ename;  this.bpay= bpay;  }

    Emp () // default constructor
    { this.eno= 0; this.ename= " ";  this.bpay= 0.0;  }

    Emp (int eno, String ename) // one more constructor
    { this.eno= eno;    this.ename= ename; this.bpay= 0.0;  }

    void print ()
    { System.out.println(" -----");
      System.out.println("      XYZ Institute");
      System.out.println(" -----");
      System.out.println ("Emp No: " +eno);
      System.out.println ("Emp Name: " + ename);
      System.out.println ("Basic Pay: " + bpay);

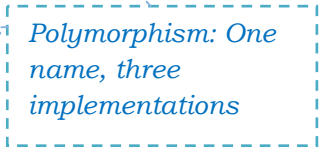
      double da= bpay*30/100;
      double qa= 1000.00;
      double ma= 1000.00;
      double itax;

      double grosspay = bpay + da+ qa +ma;
      itax= grosspay *20/100;

      double netpay= grosspay-itax;

      System.out.println(" Gross Salary : "+ grosspay);
      System.out.println(" Tax is : "+ itax);
      System.out.println(" Net Salary : "+ netpay);
      System.out.println(" -----");
    } // end of print

    public static void main(String[] args) {
        Emp e1 = new Emp(1, "XXX XXX ", 10000.00);
        Emp e2 = new Emp(2, "YYY YYYY ", 50000.00);
        e1.print();
        e2.print();
    } // end of main
} // end of class
```



The diagram is a dashed blue box containing the text "Polymorphism: One name, three implementations". Three dashed blue arrows point from this box to the three constructor definitions in the code: the first arrow points to the constructor with three parameters, the second arrow points to the default constructor with no parameters, and the third arrow points to the constructor with two parameters.