Experiment 1

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in Java with Lab

1. **Aim:** Given the following table containing information about employees of an organization, develop a small java application, which accepts employee id from the command prompt and displays the following details as output: Emp No Emp Name Department Designation and Salary
You may assume that the array is initialized with the following details:

Emp No.	Emp Name	Join Date	Desig Code	Dept	Basic	HRA	IT
1001	Ashish	01/04/2009	e	R&D	20000	8000	3000
1002	Sushma	23/08/2012	c	PM	30000	12000	9000
1003	Rahul	12/11/2008	k	Acct	10000	8000	1000
1004	Chahat	29/01/2013	r	Front Desk	12000	6000	2000
1005	Ranjan	16/07/2005	m	Engg	50000	20000	20000
1006	Suman	1/1/2000	e	Manu factur ing	23000	9000	4400
1007	Tanmay	12/06/2006	c	PM	29000	12000	10000

Salary is calculated as Basic+HRA+DA-IT. (DA details are given in the Designation table)

Designation details :

Designation Code	Designation	DA
e	Engineer	20000
c	Consultant	32000
k	Clerk	12000
r	Receptionist	15000
m	Manager	40000

Use Switch-Case to print Designation in the output and to find the value of DA for a particular employee.

2. **Objective:**

i. Assuming that your class name is Project1, and you execute your code as java Project1 1003, it should display the following output :
Emp No. Emp Name Department Designation Salary
1003   Rahul   Acct   Clerk   29000
ii. java Project1 123
There is no employee with empid : 123

3. **Implementation/Code:**

```java
import java.util.Scanner;

class Employees {
    public int empNo;
    public String empName;
    public char designCode;
    public int basic;
    public int HRA;
    public int IT;

    Employees(int empNo, String empName, char designCode, int basic, int HRA,
      int IT) {
```

```java
            this.empNo = empNo;
            this.empName = empName;
            this.designCode = designCode;
            this.basic = basic;
            this.HRA = HRA;
            this.IT = IT;
        }
    }

    class DesignationDetails {
        public String designation;
        public int DA;

        DesignationDetails(String designation, int DA) {
            this.designation = designation;
            this.DA = DA;
        }
    }

    public class exp1 {

        public static DesignationDetails degDetails(char designCode) {
            switch (designCode) {
                case 'e':
                    return new DesignationDetails("Engineer", 20000);
                case 'c':
                    return new DesignationDetails("Consultant", 32000);
                case 'r':
                    return new DesignationDetails("Clerk", 12000);
                case 'k':
                    return new DesignationDetails("Receptionist", 15000);
                case 'm':
                    return new DesignationDetails("Manager", 40000);
                default:
                    return new DesignationDetails("Unknown", 0);
            }
        }

        public static void main(String[] args) {
            Scanner input = new Scanner(System.in);
```

```java
        Employees[] arr = {
            new Employees(1001, "Ashish", 'e', 20000, 8000, 3000),
            new Employees(1002, "Sushma", 'c', 30000, 12000, 9000),
            new Employees(1003, "Rahul", 'k', 10000, 8000, 1000),
            new Employees(1004, "Chahat", 'r', 12000, 6000, 2000),
            new Employees(1005, "Ranjan", 'm', 50000, 20000, 20000),
            new Employees(1006, "Suman", 'e', 23000, 9000, 4400),
            new Employees(1007, "Tanmay", 'c', 29000, 12000, 10000)
        };

        System.out.print("Enter employee number to see info: ");
        int val = input.nextInt();

        boolean found = false;

        for (Employees emp : arr) {
            if (val == emp.empNo) {
                DesignationDetails details = degDetails(emp.designCode);
                int totalSal = details.DA + emp.basic + emp.HRA - emp.IT;
                System.out.println("Employee Info:");
                System.out.println("Number: " + emp.empNo);
                System.out.println("Name: " + emp.empName);
                System.out.println("Designation: " + details.designation);
                System.out.println("Total Salary: " + totalSal);
                found = true;
                break;
            }
        }

        if (!found)
        {
            System.out.println("There is no employee with Employee Number " + val);
        }

        input.close();
    }
}
```

4. Output:

```
Enter employee number to see info: 1003
Employee Info:
Number: 1003
Name: Rahul
Designation: Receptionist
Total Salary: 32000
```

```
Enter employee number to see info: 1234
There is no employee with Employee Number 1234
```

5. Learning Outcomes:

i.   Understanding of Class and Object Concepts in Java
ii. Implementation of Arrays and Iteration
iii. Implementation of Scanner Class in Java