Experiment 1

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Subject Name: Project Based Learning in Java with Lab	**Subject Code: 22CSH-359**

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. Code:

```
import java.util.Scanner;

public class Project1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
```

```java
        String[] empNo = {"1001", "1002", "1003", "1004", "1005", "1006",
"1007"};
        String[] empName = {"Ashish", "Sushma", "Rahul", "Chahat",
                "Ranjan", "Suman", "Tanmay"};
        String[] joinDate = {"01/04/2009", "23/08/2012", "12/11/2008",
                "29/01/2013", "16/07/2005", "01/01/2000",
"12/06/2006"};
        String[] desigCode = {"e", "c", "k", "r", "m", "e", "c"};
        String[] dept = {"R&D", "PM", "Acct", "Front Desk", "Engg",
                "Manufacturing", "PM"};
        int[] basic = {20000, 30000, 10000, 12000, 50000, 23000, 29000};
        int[] hra = {8000, 12000, 8000, 6000, 20000, 9000, 12000};
        int[] it = {3000, 9000, 1000, 2000, 20000, 4400, 10000};

        System.out.print("Enter Employee ID: ");
        String inputEmpId = sc.nextLine();

        int index = -1;
        for (int i = 0; i < empNo.length; i++) {
            if (empNo[i].equals(inputEmpId)) {
                index = i;
                break;
            }
        }

        if (index == -1) {
            System.out.println("There is no employee with empid: " +
inputEmpId);
        } else {
            int da;
            String designation;

            switch (desigCode[index]) {
```

```java
                case "e":
                    designation = "Engineer";
                    da = 20000;
                    break;
                case "c":
                    designation = "Consultant";
                    da = 32000;
                    break;
                case "k":
                    designation = "Clerk";
                    da = 12000;
                    break;
                case "r":
                    designation = "Receptionist";
                    da = 15000;
                    break;
                case "m":
                    designation = "Manager";
                    da = 40000;
                    break;
                default:
                    designation = "Unknown";
                    da = 0;
            }

            int salary = basic[index] + hra[index] + da - it[index];

            System.out.println("Emp No    Emp Name    Department
Designation    Salary");
            System.out.printf("%s    %s    %s    %s    %d%n",
                    empNo[index], empName[index], dept[index],
designation, salary);
        }
```

```
        sc.close();
      }
   }
```

4. **Output:**

```
Enter Employee ID:
1007
Emp No     Emp Name      Department    Designation    Salary
1007       Tanmay        PM            Consultant     63000


...Program finished with exit code 0
Press ENTER to exit console.█

Enter Employee ID:
1010
There is no employee with empid: 1010


...Program finished with exit code 0
Press ENTER to exit console.
```

5. **Learning Outcomes:**
   i. Understand how to map employee details (like designation codes to roles) using efficient logic and structures. ii. Learn to identify and address input mismatches or invalid entries through proper validation and error messages.
   iii. Gain skills in presenting data in a well-structured and readable format for better user understanding.