



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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## Experiment 1

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**Subject Name:** Project Based Learning  
in Java with Lab

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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 facturing	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:

```
import java.util.Scanner;
public class Project1 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        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: ");  
Int EmpId = sc.nextInt();
```

```
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]) {  
        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.println(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:

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