

**CHANDIGARH UNIVERSITY  
UNIVERSITY INSTITUTE OF NGINEERING  
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**



<b>Submitted By:</b> Vivek Kumar(21BCS8129)		<b>Submitted To:</b> Neeru Sharma(E12950)	
<b>Subject Name</b>	Project Based Learning in Java Lab		
<b>Subject Code</b>	20CSP-321		
<b>Branch</b>	Computer Science and Engineering		
<b>Semester</b>	5 <sup>th</sup>		

## Experiment - 1

**Student Name: Vivek Kumar**

**Branch: BE-CSE(LEET)**

**Semester: 5<sup>th</sup>**

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

**UID: 21BCS8129**

**Section/Group: WM-20BCS-616/A**

**Date of Performance: 09/08/2022**

**Subject Code: 20CSP-321**

### 1. Aim/Overview of the practical:

Create an application to save the employee information using arrays.

### 2. Task to be done/ Which logistics used:

Write the program to create an application to save the employee information using arrays.

### 3. Software Requirements (For programming-based labs):

- JDK-8 or any
- Eclipse-IDE for Java

### 4. Steps for experiment/practical/Code:

```
import java.io.BufferedReader;
```

```
import java.io.IOException;
```

```
import java.io.InputStreamReader;
```

```
public class Employee {
```

```
    String empId;
```

```
    String depName;
```

```
    String empDesignation;
```

```
    String empName;
```

```
    String dateJoin;
```

```
    int basic;
```

```
    int hra;
```

```
    int it;
```

```
    char designationCode;
```

```
    public static int da;
```

```
    public Employee(
```

```
        String empId,
```

```
        String depName,
```

```
        String empDesignation,
```

```
        String empName,
```

```
        String dateJoin,
```

```
        int basic,
```

```
        int hra,
```

```
        int it,
```

```
        char designationCode
```

```
    ) {
```

```
        this.empId = empId;
```

```
        this.depName = depName;
```

```
        this.empDesignation = empDesignation;
```

```
        this.empName = empName;
```

```
this.dateJoin = dateJoin;
this.basic = basic;
this.hra = hra;
this.it = it;
this.designationCode = designationCode;
}

public static int da(char designationCode) {
    switch (designationCode) {
        case 'e':
        {
            da = 20000;
            break;
        }
        case 'c':
        {
            da = 32000;
            break;
        }
        case 'k':
        {
            da = 12000;
            break;
        }
        case 'r':
        {
            da = 15000;
            break;
        }
        case 'm':
        {
            da = 40000;
            break;
        }
        default:
            throw new IllegalStateException("Unexpected value: " + designationCode);
    }
    return da;
}

public static int salary(int basic, int hra, int da, int it) {
    int salary = basic + hra + da - it;
    return salary;
}
```

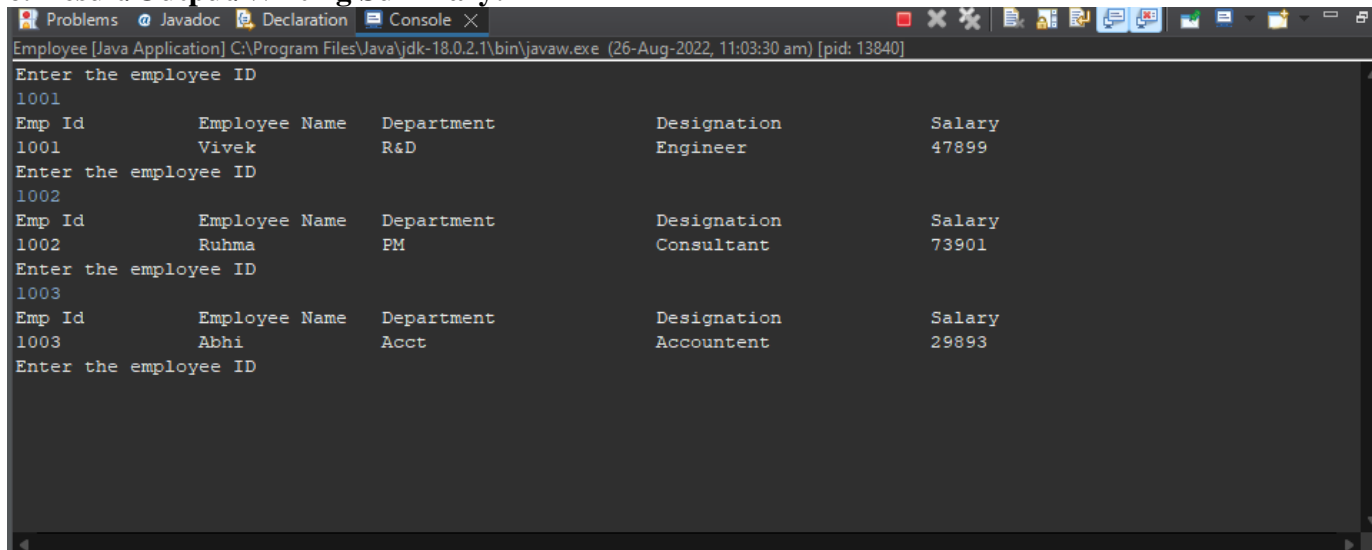
```
public static void details(  
    String empId,  
    String empName,  
    String depName,  
    String empDesignation,  
    int salary  
) {  
    System.out.println(  
        "Emp Id\tEmployee Name\tDepartment\tDesignation\tSalary"  
    );  
    System.out.println(empId + "\t" + empName + "\t" + depName + "\t" + empDesignation + "\t" + salary);  
}  
  
public static void main(String[] args) throws IOException {  
    boolean val = true;  
    BufferedReader bufferedReader = new BufferedReader(  
        new InputStreamReader(System.in)  
    );  
    String empId;  
    int c = 0;  
    Employee[] employees = new Employee[3];  
    employees[0] =  
        new Employee(  
            "1001",  
            "R&D",  
            "Engineer",  
            "Vivek",  
            "1/04/2022",  
            20000,  
            8000,  
            3000,  
            'e'  
        );  
    employees[1] =  
        new Employee(  
            "1002",  
            "PM",  
            "Consultant",  
            "Ruhma",  
            "23/08/2022",  
            30000,  
            12000,  
            9000,  
            'c'  
        );  
};
```

```
employees[2] =
    new Employee(
        "1003",
        "Acct",
        "Accountent",
        "Abhi",
        "12/11/2008",
        10000,
        8000,
        1000,
        'k'
    );
while(val) {
    System.out.println("Enter the employee ID ");
    empId = bufferedReader.readLine();
    for (int i = 0; i < 3; i++) {
        if (employees[i].empId.equals(empId)) {
            c = 1;
            int salary = salary(
                employees[i].basic,
                employees[i].hra,
                da(employees[i].designationCode),
                employees[i].designationCode
            );
            details(
                employees[i].empId,
                employees[i].empName,
                employees[i].depName,
                employees[i].empDesignation,
                salary
            );
            break;
        }
    }
    if (c != 1) System.out.println("Entered employee ID not found");
}
}
```

## 5. Observations/Discussions/ Complexity Analysis:

Here we have created the Array with the size of 3 and Data inserted, calculated the DA and Actual salary. Moreover, I've given the Search method with EmpId.

## 6. Result/Output/Writing Summary:



```

Employee [Java Application] C:\Program Files\Java\jdk-18.0.2.1\bin\javaw.exe (26-Aug-2022, 11:03:30 am) [pid: 13840]
Enter the employee ID
1001
Emp Id      Employee Name  Department  Designation  Salary
1001      Vivek         R&D         Engineer     47899
Enter the employee ID
1002
Emp Id      Employee Name  Department  Designation  Salary
1002      Ruhma         PM          Consultant   73901
Enter the employee ID
1003
Emp Id      Employee Name  Department  Designation  Salary
1003      Abhi          Acct        Accountant   29893
Enter the employee ID
  
```

## Learning outcomes (What I have learnt):

1. Learn How to create the array.
2. Array manipulation in java.

## Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			