# LAB INDEX

NAME: Vivek Kumar
UID: 21BCS8129
SECTION: WM-20BCS-616/A

SUBJECTNAME: Project Based Learning in Java Lab
SUBJECTCODE: 20CSP-314

| Sr. No | Program | Date | Evaluation | | | | Sign |
|---|---|---|---|---|---|---|---|
| | | | LW (12) | VV (10) | FW (8) | Total (30) | |
| 1 | Create an application to save the employee information using arrays. | 09-08-2022 | | | | | |
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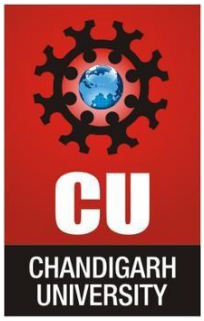
**CHANDIGARH UNIVERSITY**

**UNIVERSITY INSTITUTE OF NGINEERING**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**




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

# Experiment - 1

**Student Name: Vivek Kumar** **UID: 21BCS8129**
**Branch: BE-CSE(LEET)** **Section/Group: WM-20BCS-616/A**
**Semester: 5th** **Date of Performance: 09/08/2022**
**Subject Name: Project Based Learning in Java Lab** **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;
}
```

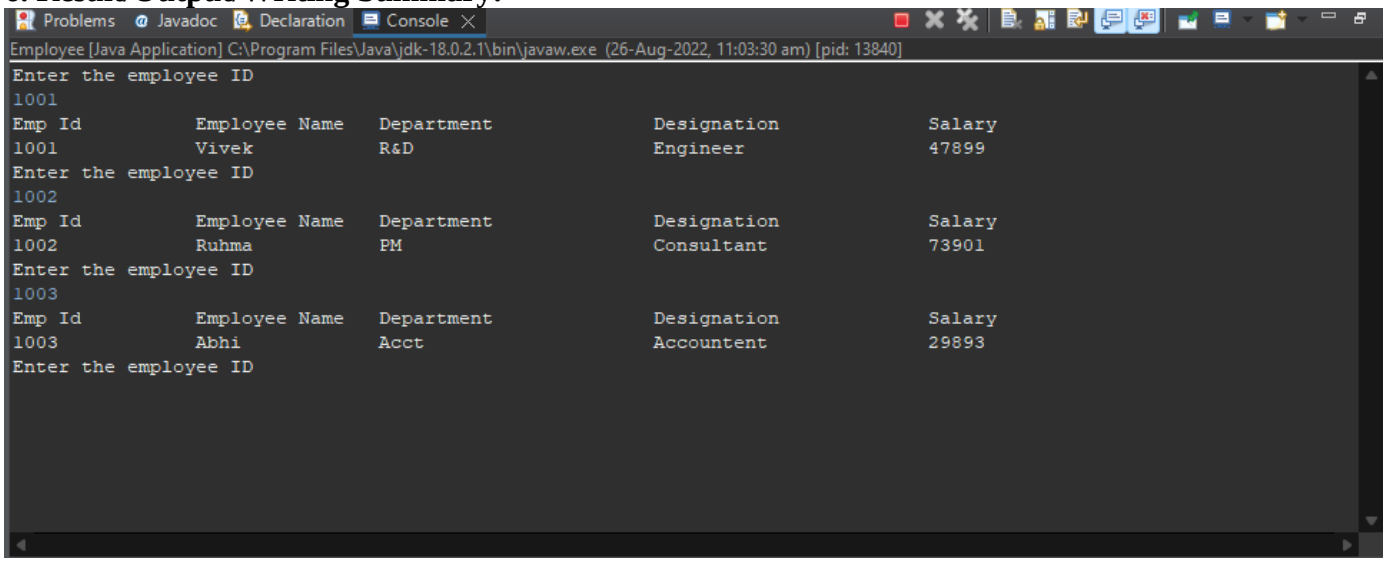
```
  public static void details(
    String empId,
    String empName,
    String depName,
    String empDesignation,
    int salary
  ) {
    System.out.println(
      "Emp Id\t\tEmployee Name\tDepartment\t\tDesignation\t\tSalary"
    );
    System.out.println(empId +"\t\t"+ empName +"\t\t"+ depName +"\t\t\t"+ empDesignation +"\t\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:**




**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. | | | |
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