

## Experiment - 1

**Student Name: Vivek Kumar**

**UID: 21BCS8129**

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

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

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

**Date of Performance: 16/08/2022**

**Subject Name: Machine Learning Lab**

**Subject Code: 20CSP-317**

### 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. Algorithm/Flowchart (For programming-based labs):

### 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 {
    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","Ash","1/04/2009",20000,8000,3000,'e');
    employees[1] =
        new Employee("1002","PM","Consultant","Anjali","23/08/2012",30000, 12000, 9000,'c');
    employees[2] =
        new Employee("1003","Acct","Clerk","Raju","12/11/2008",10000,8000,1000,'k');
    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;
        }
    }
}
```

```

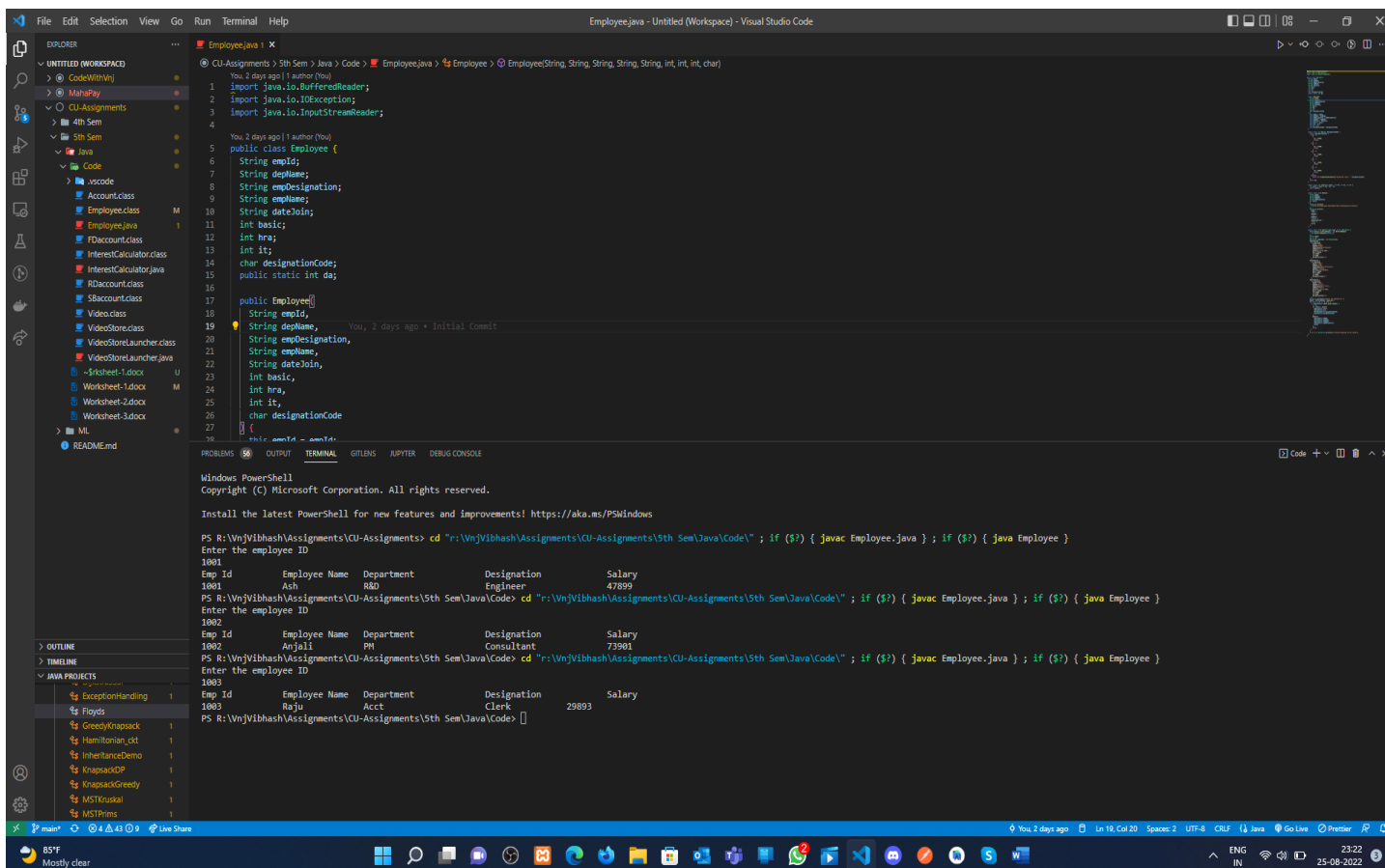
    }
}
if (c != 1) System.out.println("Entered employee ID not found");
}
}

```

## 5. Observations/Discussions/ Complexity Analysis:

Here we have created the Array with the size of 3 and Data inserted and Give the Search method with Employee

## 6. Result/Output/Writing Summary:



The screenshot shows the Visual Studio Code interface with the `Employee.java` file open. The code defines an `Employee` class with attributes `empId`, `empName`, `empDesignation`, `empSalary`, and `empDateJoin`. It includes a `main` method that creates an array of `Employee` objects and performs a search for a given employee ID.

The terminal output shows the execution of the program. It prompts the user to enter an employee ID. For the first two inputs (1001 and 1002), it displays the employee details. For the third input (1003), it displays the details. For the fourth input (1004), it displays a message indicating that the employee ID is not found.

```

PS R:\WjvVibhash\Assignments\CU-Assignments\5th Sem\Java\Code> cd "R:\WjvVibhash\Assignments\CU-Assignments\5th Sem\Java\Code" ; if ($?) { javac Employee.java } ; if ($?) { java Employee }
Enter the employee ID
1001
Employee Name Department Designation Salary
Ash R&D Engineer 47899
PS R:\WjvVibhash\Assignments\CU-Assignments\5th Sem\Java\Code> cd "R:\WjvVibhash\Assignments\CU-Assignments\5th Sem\Java\Code" ; if ($?) { javac Employee.java } ; if ($?) { java Employee }
Enter the employee ID
1002
Employee Name Department Designation Salary
Anjali PM Consultant 73901
PS R:\WjvVibhash\Assignments\CU-Assignments\5th Sem\Java\Code> cd "R:\WjvVibhash\Assignments\CU-Assignments\5th Sem\Java\Code" ; if ($?) { javac Employee.java } ; if ($?) { java Employee }
Enter the employee ID
1003
Employee Name Department Designation Salary
Raju Acct Clerk 29893
PS R:\WjvVibhash\Assignments\CU-Assignments\5th Sem\Java\Code>

```

## 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.			