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UNIVERSITY INSTITUTE OF ENGINEERING

Department of Computer Science & Engineering

(BE-CSE/IT-5th Sem)

Subject Name: Project Based Learning in Java with Lab

Subject Code: 22CSH-359

Submitted to:
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Section: 902

Group: B

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INDEX

Name: Vinay Kumar **UID: 22BCS16093**

Ex. No	Name of Experiments	Date	Conduct (MM: 12)	Viva (MM: 10)	Worksheet (Record) (MM: 8)	Total (MM: 30)	Remarks	Signature (with date)
1	Create an application to save the employee information using arrays.							
2	Design and implement a simple inventory control system for a small video rental store.							
3	Create an application to calculate interest for FDs, RDs, based on certain conditions..							
4	Write a program the basic operations like insert, delete, display and search in list. List contains String Object items where these operations are to be performed.							
5	Create a program to collect unique symbols from a set of cards using interface.							
6	Create a menu-based Java application with the following options.							
7	Create JSP application for addition, multiplication and division.							
8	Create an application for online auction using Servlet and JSP.							
9	Lab Based Mini Project							
10	MINI - PROJECT							

Experiment 1

Student Name: Vinay kumar
UID: 22BCS16093
Branch: BE-CSE
Section/Group: 902-B
Semester: 6th
Date of Performance: 08/01/2025
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	Manufacturing	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.*;

class Project {
   public static void main(String[] args) {
```

```
        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", "1/1/2000", "12/06/2006"};
        char[] designationCode = {'e', 'c', 'k', 'r', 'm', 'e', 'c'};
        String[] department = {"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};

        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter Employee Number: ");
        String userInput = scanner.nextLine();
        scanner.close();

        boolean exist = false;
        int index = -1;

        for (int i = 0; i < empNo.length; i++) {
            if (Objects.equals(empNo[i], userInput))
                { exist = true;
                index = i;
                break;
            }
        }


        String empId = "", name = "", date = "", depart = "";
        char dCode = 'e';
```

```
        int basicSalary = 0, h = 0, iT = 0, da = 0;
        String designation = "";


        if (index == -1 && !exist) {
            System.out.println("There is no employee with empid: " +
userInput);
        } else {
            empId = empNo[index];
            name = empName[index];
            date = joinDate[index];
            dCode = designationCode[index];
            depart = department[index];
            basicSalary = basic[index];
            h = hra[index];
            iT = it[index];
        }

        switch (dCode)
            { 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;

            default:
                designation = "Manager";
                da = 40000;
        }

        int salary = basicSalary + h + da - iT;


        if (exist) {
            System.out.println("Emp No.    " + "Emp Name    " +
"Department    " + "Designation     " + "Salary     ");
            System.out.println(" " + empId + "      " + name + "        " +
depart + "        " + designation + "         " + salary);
        }
    }
}
```

4. Output:

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.