PROBLEM BASED LEARNING IN JAVA LAB
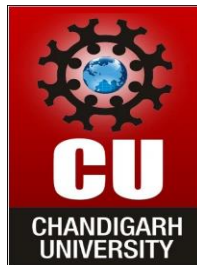
20CSP-321

Submitted for the requirement of

Lab course

BACHELOR OF ENGINEERING

COMPUTER SCIENCE & ENGINEERING

Submitted to: **Submitted By:**
Er. Nongmeikapam Thoiba Singh   **Yana Srivastava**
                                                                                    20BCS2279
                                                                                    20BCSWM_906B

LABINDEX

NAME: YANA SRIVASTAVA

SUBJECT NAME: Problem Based Learning in Java Lab
UID: 20BCS2279
SUBJECT CODE:20 CSP-321
SECTION: 20BCSWM_906 B

Sr. No	Program	Date	Evaluation				Sign
			LW (12)	VV (8)	FW (10)	Total (30)	
1.	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.	10.08.2022					
2.	A Video Rental Inventory System.	17.08.2022					
3.	Interest Calculator.	22.08.2022					

Experiment 1

Student Name: Yana Srivastava   **UID:** 20BCS2279
Branch: BE CSE   **Section/Group:** 20BCSWM_906 B
Semester: 5th   **Date of Performance:** 10.08.2022
Subject Name: Problem Based Learning in Java Lab   **Subject Code:** 20CSP_321

1. Aim/Overview of the practical:

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

Salary is calculated as Basic+HRA+DA-IT. (DA details are given in the Designation table)

2. Task to be done/ Which logistics used:

- Concepts of array will be used
- Concept of array mapping will be used to connect the elements of two tables and display the output.

3. Algorithm / Flowchart:

1. Insert the elements of table1 in the array as per the credentials and identify the datatype.
2. After that insert the designation and salary of another table.
3. Initialize the index with 0 and DA.
4. Map the designation code of both the tables to generate the index of the employee number.
5. Give designation code to the switch conditions with all the credentials to be displayed.
6. Then calculate the salary with the given formula (Basic+HRA+DA-IT).

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4. Steps for experiment/practical/Code:

```java
import java.util.*;

public class exp1_1
{

public static void main(String[] args)

{
String[] Ename = {"Ashish ","Sushma ","Rahul ","Chahat ","Ranjan ","Suman ","Tanmay

"},
Jdate =

{"01/04/200100009","23/08/2012","12/11/2018","29/0/2013","16/07/2005","1/1/2000","12/06/2006"},

Dept = {"R&D ","PM ","Acct ","Front Desk","Engg ","Manufacturing","PM "}, Designation = {" "," "," "," "," "," "};

char[] Code = {'e','c','k','r','m','e','c'};

int[] Basic = {20000,30000,10000,12000,50000,23000,29000}, HRA =
{8000,12000,8000,6000,20000,9000,12000}, IT= {3000,9000,1000,2000,20000,4400,10000},

Eno = {1001,1002,1003,1004,1005,1006,1007}, DA = {1,2,3,4,5}; int N=0,t=-1,index=0;
Scanner sc = new Scanner(System.in);

System.out.println("Enter eno");
N       = sc.nextInt();

for(int i=0;i<=6;i++){
if(N==Eno[i])
```

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```java
{

t=i%5;
index=i;

}
}

if(t==-1)
{

System.out.println("There is no employee with empid: "+N); System.exit(0);
}

switch (Code[t])
{

case 'e' :
{

Designation[0]="Engineer ";

DA[0] = 20000;
break;

}
case 'c' :

{
Designation[1]="Consultant ";

DA[1] = 32000;

break;
}
```

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```java
case 'k' :
{

Designation[2]="Clerk ";

DA[2] = 12000;
break;
}

case 'r':
{

Designation[3]="Receptionist";

DA[3] = 15000;
break;

}
case 'm':

{

Designation[4]="Manager ";
DA[4] = 40000;

break;
}

default : break;
}

System.out.print("EmpNo. Emp Name Department Designation Salary "); System.out.println();

System.out.print(Eno[index]+" "+Ename[index]+" "+Dept[index]+"
```

"+Designation[t]+""+(Basic[index]+HRA[index]+DA[t]-IT[index]));
}
}

5. Result/Output/Writing Summary:


```
Problems  @ Javadoc  Declaration  Console ⊠
<terminated> exp1_1 [Java Application] C:\Users\Nitin Batra\.p2\pool\p
Enter eno
1002
EmpNo. Emp Name Department Designation Salary
1002 Sushma  PM   Consultant 65000
```

6. Learning outcomes (What I have learnt):

1. Learnt about arrays in Java.
2. Learnt about classes 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.			