Lab-3

AI

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QUESTION:

Implement and Demonstrate Course registration Problem in Java/ Python There are 10 students with unique registration number. There are 15 courses and 5 slots in a week. Each course has to be offered in 2 hours in a week i.e., one slot. Each student has to take 3 courses and max number of students per course is 5. Make an arrangement for the time table for 10 students. Display the timetable for the 10 students.

CODE:

```
import java.util.*;
class AssignmentAi
{

    public static void main(String args[])
    {   System.out.println("******MAJJIGA JASWANTH'S CODE******");
        Scanner ac=new Scanner (System.in);
        String a[]=new String[10];
        String z[]=new String[10];

        int c[]=new int [10];
        String s1[][]=new String[10][3];
        System.out.println("Enter name and reg no.");
        for (int i=0;i<10;i++)
        {
            System.out.println((i+1)+"   ");
            a[i]=ac.nextLine();
            z[i]=ac.nextLine();
            c[i]=0;
        }

        String b[]={"AI","FEEE","OOPS","FDA","DMS","NME","PS","COE","AS","DSA","C-
PROGRAMMING","PYTHON","SQL","MP","EC"};




        int d2[]=new int[15];
        int s[]=new int[5];
        int x,j,i,m=0,k;
        Random random = new Random();

        for(int q=0;q<3;q++)
        {
            i=0;
            b:for(;i<10;)
            {
```

```
                x=random.nextInt(15);
                if(d2[x]<5)
                {
                    m=0;
                    for(k=0;k<c[i];k++)
                    {

                        if(s1[i][k].compareTo(b[x])==0)
                        {
                            m=1;
                            break;
                        }
                    }
                    if(m==0)
                    {
                        s1[i][c[i]]=b[x];
                        c[i]++;
                        d2[x]++;
                        i++;
                    }
                    else
                    {
                        continue b;
                    }
                }
                else
                {
                    continue b;
                }
            }
        }

        for(i=0;i<10;i++)
        {
            System.out.println(a[i]+"\n"+z[i]);
            for(j=0;j<3;j++)
            {
                System.out.println("\t"+j+") "+s1[i][j]);
            }
            System.out.println();
        }

    }
}
```

OUTPUT:

```
******MAJJIGA JASWANTH'S CODE******
Enter name and reg no.
1
CHINNU
20BCD0001
2
PINKY
20BCD0002
3
PANDU
20BCD0003
4
KRITHI
20BCD0004
5
DEEPU
20BCD0005
6
AMMU
20BCD0006
7
CHRONO
ELITE-PASS
8
LEON
20BCD0007
9
ALOK
20BCD0008

10
KELLY
20BCD0008
CHINNU
20BCD0001
        0) OOPS
        1) FDA
        2) FEEE

PINKY
20BCD0002
        0) PYTHON
        1) AS
        2) FEEE

PANDU
20BCD0003
        0) NME
        1) AS
        2) PYTHON

KRITHI
20BCD0004
        0) SQL
        1) AI
        2) OOPS
```

```
DEEPU
20BCD0005
        0) OOPS
        1) MP
        2) SQL

AMMU
20BCD0006
        0) PS
        1) NME
        2) SQL

CHRONO
ELITE-PASS
        0) PS
        1) AS
        2) NME

LEON
20BCD0007
        0) DSA
        1) OOPS
        2) AI


ALOK
20BCD0008
        0) COE
        1) PS
        2) NME

KELLY
20BCD0008
        0) NME
        1) AS
        2) PYTHON
```