

INNER CLASS LAB

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Section : B

Q 1 Create a class Training having fields like studentid, name ,address,phone.

create two inner classes online training and offline training

In online training define fields like duration, online marks.

a) define get

Data and showData method of same class

In offline training define fields like boolean system allocation,offline marks.

a) Define input and display methods in same class

Create main method in Training class and show menu

1) offline training

2) online training

Ask choice from user and accordingly call its method.

```
class Training
{
    int studentid;
    String name;
    String address;
    int phone;

    class online_training
    {
        int duration ;
        int online_marks;

        void getdata()
        {
            Scanner s = new Scanner(System.in);
            System.out.println("enter idno");
            studentid = s.nextInt();
            System.out.println("enter name");
            name = s.next();
            System.out.println("enter address");
            address = s.next();
            System.out.println("enter phone no");
            phone = s.nextInt();
            System.out.println("enter duration");
            duration = s.nextInt();

            System.out.println("enter online_marks");
            online_marks = s.nextInt();
        }

        void showdata()
        {
            System.out.println("enter idno :"+studentid);
            System.out.println("enter name :"+name);
            System.out.println("enter address :"+address);
            System.out.println("enter phone :"+phone);
            System.out.println("enter duration :"+duration);
            System.out.println("enter online marks :"+online_marks);
        }
    }
}
```

```
class offline_training
{
    int offline_marks;

    void input()
    {
        Scanner s = new Scanner(System.in);
        System.out.println("enter idno");
        studentid = s.nextInt();
        System.out.println("enter name");
        name = s.next();
        System.out.println("enter address");
        address = s.next();
        System.out.println("enter phone no");
        phone = s.nextInt();
        System.out.println("enter offline_marks");
        offline_marks = s.nextInt();
    }
    void display()
    {
        System.out.println("enter idno :"+studentid);
        System.out.println("enter name :"+name);
        System.out.println("enter address :"+address);
        System.out.println("enter phone :"+phone);
        System.out.println("enter offline_marks :"+offline_marks);
    }
}
```

```

public class Q1 {

    public static void main(String[] args) {

        Scanner s = new Scanner(System.in);
        System.out.println("1) offline training");
        System.out.println("2) online training");
        System.out.println("enter as per your choice");
        int choice = s.nextInt();

        switch(choice)
        {
            case 1:
                Training t = new Training();
                Training.online_training o = t.new online_training();
                o.getdata();
                o.showdata();
                break;

            case 2:
                Training t1 = new Training();
                Training.offline_training t2 = t1.new offline_training();
                t2.input();
                t2.display();
                break;

        }

    }

}

```

O/P :

```
1) offline training
```

2) online training

enter as per your choice

```
enter idno
```

```
enter name
```

```
vaishali
```

```
enter address
```

kashti

```
enter phone no
```

```
"7028108054"
```

```
enter duration
```

```
enter online marks
```

```
enter idno    :12
```

```
enter name      :vaishali
```

```
enter address :kashti
```

```
enter phone      : "7028108054"
```

```
enter duration      :10
```

```
enter online marks      :87
```

Q 2

Write a program to demonstrate the knowledge of students in basic Java concepts. Eg., Write a program to read the First name and Last name of a person, his weight and height using command line arguments. Calculate the BMI Index which is defined as the individual's body mass divided by the square of their height.

Hint BMI =

$\text{weight} / (\text{height} * \text{height})$;

```
2
3 import java.util.Scanner;
4 public class Q2 {
5     public static void main(String[] args) {
6         Scanner s = new Scanner(System.in);
7         System.out.println("enter first name ");
8         String first_name = s.next();
9
10        System.out.println("enter last name ");
11        String last_name = s.next();
12
13        System.out.println("enter height ");
14        double height = s.nextDouble();
15
16        System.out.println("enter weight ");
17        double weight = s.nextDouble();
18
19        double BMI = weight / (height * height);
20
21        System.out.println("first name : "+first_name);
22        System.out.println("last name : "+last_name);
23        System.out.println("height : "+height+"inch");
24        System.out.println(" weight : "+weight+"kg");
25        System.out.println(" BMI : "+BMI);
26
27
28    }
29
30 }
```

O/P:

```
enter first name
vaishali
enter last name
khetmalis
enter height
5.3
enter weight
40
first name    :vaishali
last name     :khetmalis
height        :5.3inch
weight        :40.0kg
BMI           :1.4239943040227838
```

Q 3 wap to ask full name of a person from user in string .

Input Amit Kumar Sharma

output first name Amit

middle name kumar
last name= Sharma

```
import java .util.Scanner;
public class Q3 {

    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        System.out.println("enter name");
        String name = s.next();

        String s1[] = name.split("-");
        for(String k : s1)
        {
            System.out.println(k);
        }

    }
}
```

O/P:

```
enter name
vaishali-balasaheb-khetmalis
vaishali
balasaheb
khetmalis
```