OBJECT ORIENTED PROGRAMMING USING

Let's explore technology together to live in the future
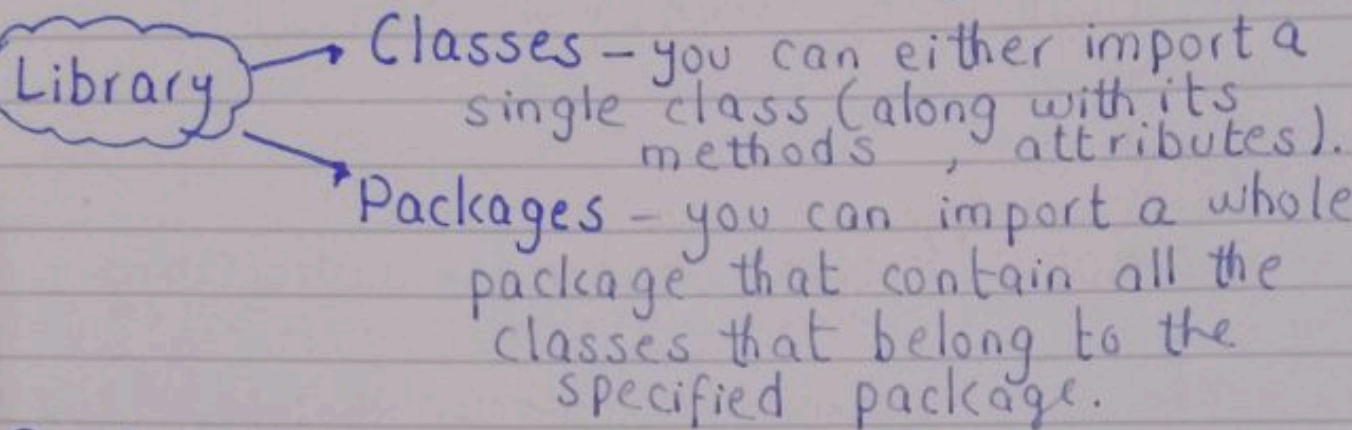
Java Packages:

A package in Java is used to group related classes.

- **Built-in packages:** (packages from Java API The Java API is a library.

Library
- Classes — you can either import a single class (along with its methods, attributes).
- Packages — you can import a whole package that contain all the classes that belong to the specified package.

Syntax:

```
import package_name.Class;  // import single class
import package_name.*;      // import whole package.
```

Import a Class:

If you want to use, for example, the Scanner class,

```
import java.util.Scanner;
```

In the example, java.util is package while Scanner is class of java.util package. To use the Scanner class, create an object of the class and use any of available method i-e nextLine().

```
import java.util.Scanner;
class MyClass {
   public static void main (String[] args)
   {
      Scanner sc = new Scanner (System.in);
      System.out.println ("Enter name:");
      String name = sc.nextLine();
      System.out.println ("Name:" + name);
```

- **User - defined :** Create your own packages.

=> For class

```
import s.StudentResult;

public class TeacherData{

public static void main (String
                              [] args)
{   // creating object
    StudentResult q = new
                  StudentResult ();

}
}
```

S
Student
StudentResult
Student Exam

t
Teacher
TeacherTax
TeacherSalary

Note : If you want to use a class in another class, then you must import it, otherwise it will give error.

=> For package:

```
import  s.*;  // all classes from that
                package have been imported
                in  your program.
```
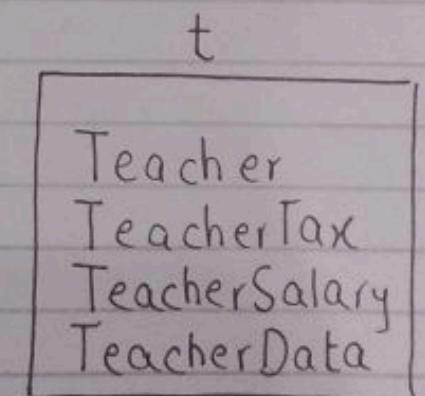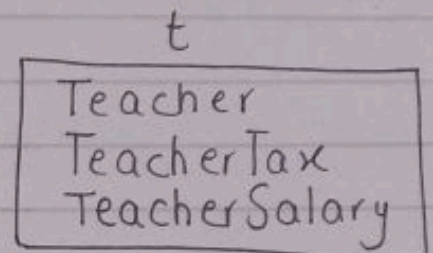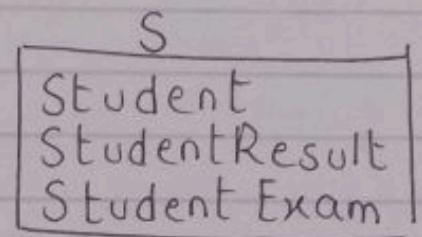
=> Package declaration:

```
package t;

public class TeacherData
{

}
```

t
Teacher
TeacherTax
TeacherSalary
TeacherData

```java
import MyPackage.MyClass;
public class PackageDemo
{
    public static void main (String []args)
    {
        MyClass obj = new MyClass();

        obj.set_value(10);
        obj.display_value();
    }
}


    package MyPackage;

public class MyClass
{
    int x;
    public void set_value (int n)
    {
        x = n;
    }

    public void display_value ()
    {
        System.out.println("value: "+ x);
    }
}
```

How to input data from user?

```java
import java.util.Scanner;

public class TeacherData
{ public static void main (String [] args)
  {    Scanner s = new Scanner (System.in

System.out.println ("Enter name: ");

String name = s.nextLine();

System.out.println ("Teacher name: "+ name)

}}
```