*Packages, Scanner class*

***Why?***

In your project having number of file that file/class that we have to deployed on production server. If some issue happens or some bugs came then how to reach out the file. For reach out the file without the package its very difficult. Solution for above problem package comes in picture, if you have packages then it will get very easy to go specific folder and found that file.

***Packages-***

Package is nothing but collection of classes and interface that’s works together called as packages.

***Advantages***

Packages helps to resolves naming confliction

Reusability- we can place the common code into one folder and reuse it.

Maintenance- if any new developer/tester joined your company then it will be easy to find the file which they wanted.

***Syntax-***

com.mahindra.hsbc.health.policy.mediclaim

Here,

Package are generally starting with com folder.

mahindra is your company name.

hsbc is your client name.

health is your project name.

policy is your module name.

mediclaim is your sub-module name.

Note- All alphabets are starts with small case letters only.

***import*-**

When we use one class within another class then go for import statement.

Example- suppose we have two different classes Test & Student in different packages.

**package** com.velocity.java;

**public** **class** Test {

//method or variable

**public** **void** m1() {

System.***out***.println("this is the m1 method");

}

}

**package** com.velocity.pune;

**public** **class** Student {

**public** **static** **void** main(String[] args) {

Test test= **new** Test();

}

}

In the test class, we are calling the method of test class, so we need to use the import statement here. Otherwise it will give compile time error

To resolve this issue, we need to import the highlighted line that is Import **import** ’Test’(com.velocity) by just clicking on it.

Different ways for import-

**import** com.velocity.java.Test; //correct

**import** com.velocity.java.\*; //correct- it will import the all the classes.

**import** com.velocity; //wrong

***Scanner in java***

Scanner is a class in java.util package used for obtaining the input of the primitive types like int, double, etc. and strings. It is the easiest way to read input in a Java program.

* To create an object of Scanner class, we usually pass the predefined object System.in.
* To read numerical values of a certain data type, the method to use is nextXYZ(). For example, to read a value of type short, we can use nextShort() and so on.
* To read strings, we use nextLine().

Program for using scanner.

Example-1

**package** com.velocity;

**import** java.util.Scanner;

**public** **class** Student {

**public** **int** add(**int** a, **int** b) {

**int** c = a + b;

**return** c;

}

**public** **static** **void** main(String[] args) {

Scanner scanner = **new** Scanner(System.***in***);

System.***out***.println("Enter the first number>>");

**int** firstNumber = scanner.nextInt();

//take the input from user use nextInt();

System.***out***.println("Enter the second number>>");

**int** secondNumber = scanner.nextInt();

System.***out***.println("first Number>>"+firstNumber);

System.***out***.println("second Number>>"+secondNumber);

Student student = **new** Student();

**int** add=student.add(firstNumber, secondNumber);

System.***out***.println("Addition>>"+add);

}

}

Output>>

Enter the first number>>

10

Enter the second number>>

20

first Number>>10

second Number>>20

Addition>>30