Scanner class

If we use the command line argument then we must be accept the input on same line. We cannot accept the Input on New line.

If we want to accept the input on new line we have the Scanner class

If we want to use the Scanner class we have the Following Steps.

Steps to Use Scanner Class

i) Add the java.util package in application

Q. What is the Package ?

Package is collection of classes and interfaces in java it is like as header file in c
If we want to use the any package in java we need to import it in application.
If we want to import package in java we have the import keyword

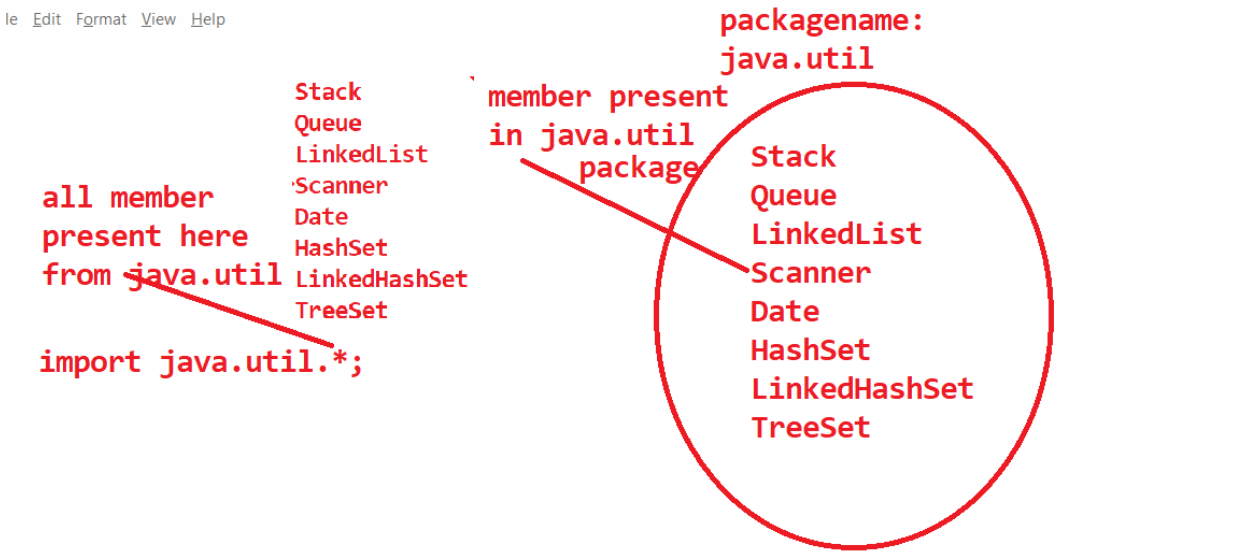
Syntax:

import packagename.*;
e.g import java.util.*;
Or
import packagename.classname;
e.g import java.util.Scanner;

As per the standard of java there are major four ways to import the package in application

a) **Wild card import** : it is denoted by * if we use the * means we can import the all member from package in application.
Syntax: import packagename.*;
e.g import java.util.*;
above statement indicate we can import the all member from java.util package in application.

Following diagram shows meaning above statement

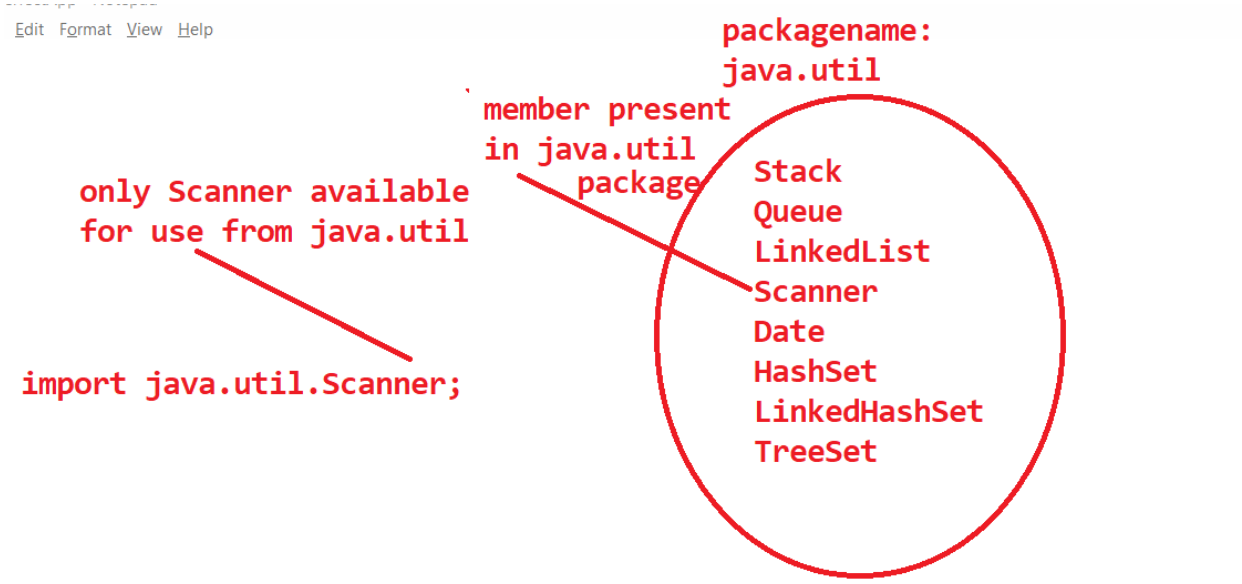


Note: The Major limitation of wild card import is there is possibility in different package may be contain the same name member and if we import the packages in program in which member name is same and if we create the object of class whose name same in different packages those are imported in application so compiler may be get confused and if we want to solve this problem we have the single type import.

b) **Single type import**: single type import means we can import the specific member from package in application.

Syntax: import packagename.classname;
e.g import java.util.Scanner;
above statement indicate we can use the single member from java.util package in application.

Following diagram shows meaning of above statement



Note: The Major limitation of single type import is cannot use the same name member from same package in application
In this case we have one more approach name as inline package import.

c) Inline package import: inline package import means package import where we can import the member in application but without using import keyword.

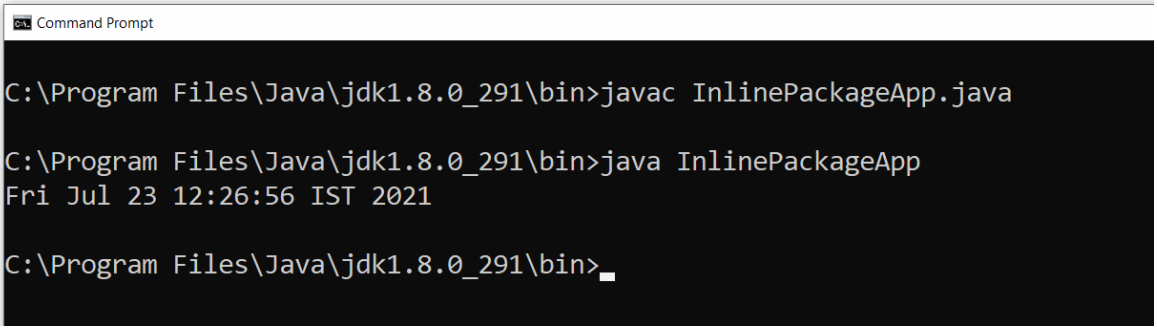
Syntax:

packagename.classname ref=new packagename.classname();

e.g java.util.Date d = new java.util.Date();

```
public class InlinePackageApp
{
   public static void main(String x[])
   {
       java.util.Date d = new java.util.Date();
       java.sql.Date d1 = new java.sql.Date(5);
System.out.println(d);

   }
}
```



d) Static package import:

Note: we will discuss classes and object chapter

ii) Create the object of Scanner class

Syntax: Scanner ref = new Scanner(System.in);

iii) Use its method/function of Scanner for accept the input

Scanner class provide the some inbuilt method/function to us to accept the input from keyboard .Scanner class provide the separate method to

Us for separate type of input .

Methods or functions of Scanner class

int nextInt(): this method is used for accept the input of type integer

float nextFloat(): this method is used for accept the input of type float

double nextDouble(): this method is used for accept the input of type double.

long nextLong(): this method is used for accept the input of type long

String nextLine(): this method is used for accept the input of type string

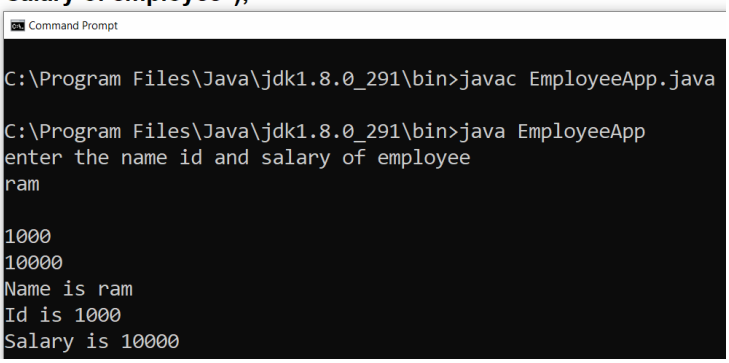
short nextShort(): this method is used for accept the input of type short.

Etc

Example 1

WAP To input the name id and salary of employee and display it using Scanner class.

```
import java.util.*;//step1
public class EmployeeApp
{
   public static void main(String x[])
   {
       Scanner xyz = new Scanner(System.in); //step2
     System.out.println("enter the name id and salary of employee");
      String name=xyz.nextLine(); //step3
      int id=xyz.nextInt();
      int sal=xyz.nextInt();
     System.out.printf("Name is %s\n",name);
     System.out.printf("Id is %d\n",id);
     System.out.printf("Salary is %d\n",sal);
   }
}
```



Example 2

WAP To input the two values and calculate its Multiplication using Scanner

```
import java.util.*; //step1
public class AdditionApp
{
    public static void main(String x[])
    {
       Scanner xyz  = new Scanner(System.in); //step2
      System.out.println("Enter the two values");
        int a=xyz.nextInt();//step3
        int b=xyz.nextInt();
        int c=a+b;
       System.out.printf("Addition is %d\n",c);
    }
}
```