

## Java Application Programming Interface (API)

Java application programming interface (API) is a list of all classes that are part of the Java development kit (JDK). It includes all Java packages, classes, and interfaces, along with their methods, fields, and constructors. These prewritten classes provide a tremendous amount of functionality to a programmer. A programmer should be aware of these classes and should know how to use them. A complete listing of all classes in Java API can be found at Oracle's website: <http://docs.oracle.com/javase/7/docs/api/>.

Please visit the above site and bookmark it for future reference. Please consult this site often, especially when you are using a new class and would like to know more about its methods and fields.

If you browse through the list of packages in the API, you will observe that there are packages written for GUI programming, networking programming, managing input and output, database programming, and many more. Please browse the complete list of packages and their descriptions to see how they can be used.

In order to use a class from Java API, one needs to include an import statement at the start of the program. For example, in order to use the `Scanner` class, which allows a program to accept input from the keyboard, one must include the following import statement:

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

The above import statement allows the programmer to use any method listed in the `Scanner` class. Another choice for including the import statement is the wildcard option shown below:

```
import java.util.*;
```

This version of the import statement imports all the classes in the API's `java.util` package and makes them available to the programmer. If you check the API and look at the classes written in the `java.util` package, you will observe that it includes some of the classes that are used often, such as `Arrays`, `ArrayList`, `Formatter`, `Random`, and many others.

Another Java package that has several commonly used classes is the `java.lang` package. This package includes classes that are fundamental to the design of Java language. The `java.lang` package is automatically imported in a Java program and does not need an explicit import statement. Please note that some of the classes that we use very early in Java programming come from this package. Commonly used classes in the `java.lang` package are: `Double`, `Float`, `Integer`, `String`, `StringBuffer`, `System`, and `Math`.