

Following is an example of creating an object:

```
public class Puppy{

    public Puppy(String name){
        // This constructor has one parameter, name.
        System.out.println("Passed Name is :" + name );
    }

    public static void main(String []args){
        // Following statement would create an object myPuppy
        Puppy myPuppy = new Puppy( "tommy" );
    }
}
```

If we compile and run the above program, then it will produce the following result:

```
Passed Name is :tommy
```

Accessing Instance Variables and Methods

Instance variables and methods are accessed via created objects. To access an instance variable, following is the fully qualified path:

```
/* First create an object */
ObjectReference = new Constructor();

/* Now call a variable as follows */
ObjectReference.variableName;

/* Now you can call a class method as follows */
ObjectReference.MethodName();
```

Example

This example explains how to access instance variables and methods of a class.

```
public class Puppy{

    int puppyAge;

    public Puppy(String name){
        // This constructor has one parameter, name.
        System.out.println("Name chosen is :" + name );
    }

    public void setAge( int age ){
        puppyAge = age;
    }

    public int getAge( ){
        System.out.println("Puppy's age is :" + puppyAge );
        return puppyAge;
    }

    public static void main(String []args){
        /* Object creation */
        Puppy myPuppy = new Puppy( "tommy" );

        /* Call class method to set puppy's age */
        myPuppy.setAge( 2 );

        /* Call another class method to get puppy's age */
        myPuppy.getAge( );

        /* You can access instance variable as follows as well */
        System.out.println("Variable Value :" + myPuppy.puppyAge );
    }
}
```

If we compile and run the above program, then it will produce the following result:

```
Name chosen is :tommy
Puppy's age is :2
Variable Value :2
```

Source File Declaration Rules

As the last part of this section, let's now look into the source file declaration rules. These rules are essential when declaring classes, *import* statements and *package* statements in a source file.

- There can be only one public class per source file.
- A source file can have multiple non-public classes.
- The public class name should be the name of the source file as well which should be appended by **.java** at the end. For example: the class name is *public class Employee{}* then the source file should be as Employee.java.
- If the class is defined inside a package, then the package statement should be the first statement in the source file.
- If import statements are present, then they must be written between the package statement and the class declaration. If there are no package statements, then the import statement should be the first line in the source file.
- Import and package statements will imply to all the classes present in the source file. It is not possible to declare different import and/or package statements to different classes in the source file.

Classes have several access levels and there are different types of classes; abstract classes, final classes, etc. We will be explaining about all these in the access modifiers chapter.

Apart from the above mentioned types of classes, Java also has some special classes called Inner classes and Anonymous classes.