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Access Modifiers

Access to member variables and methods in a java class is accomplished through access modifiers. Access modifiers define the varying levels of access between class members and outside world. Access modifiers are declared immediately before the data type of a member variable or the return type of a method. There are four modifiers: default,private,protected and public.

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| --- | --- |
| ACCESS MODIFIERS | LEVELS OF ACCESS |
| Default | Only classes in the same physical file or compilation unit have access to member variables and methods with default access modifiers. |
| Private | Private variables and methods are accessible only within the class in which it is declared. |
| Protected | Protected variables and methods are accessible only in the class in which it is declared and also in the classes derived from it(inheritance). |
| Public | Public class members and methods are accessible anywhere, both inside and outside the class in which it is declared. |

Program

Single line comment

// Program to print HelloWorld   
public class Example

Identifier

Access modifier

Keyword

Beginning of the class

{

Main method

public static void main(String args[])

Beginning of the method

{

Print (output) statement

System.out.println(“HelloWorld”)

}

}

Detailed explanation given below:

Main () method must be declared as public since it must be called from outside of its class when the program starts execution. The keyword STATIC allows main() to be called by java interpreter without creating any object of the class. It is necessary because java interpreter calls main() before any objects are made. The keyword VOID simple tells the compiler that main() does not return any value. Args[] stores character array received from the command line when the program is executed.

The first line of any program begins with the keyword CLASS followed by the name of the class. This defines a class. An open curly bracket denotes the beginning of the class and it should always end with a closing curly braces.

Public static void main(String args[]): This is called the main method of a java program. A program can have many methods with any name and parameters but the main method must follow the same format. Any java application will begin its execution from the main method.

System.out.println(“HelloWorld”): This is a standard output statement to print the output or string to the output device normally the monitor. It must be terminated by a semicolon.