Getting Started With Java – A First Program with Simple Output

The “Hello world!” program is a traditional starting point for the introduction to most programming languages. It also allows us to explore and explain some of the basic structure common to all Java programs.

```
class HelloWorld
{
  // This program prints a simple message
  public static void main (String[] args)
  {
    System.out.println("Hello world!");
  }
}
```

Consider some of the components of this program in detail:

1. **`class`**

   All Java programs are contained in a *class*. The start of a class is indicated by the reserved word **`class`**. There are about fifty (50) reserved words in Java.

2. **`HelloWorld`**

   This is the name to identify this particular class. Class names in Java are traditionally named using PascalCase, where each distinct word in the name (no spaces) starts with a capital letter.

3. **`{ }`**

   Brace brackets are used to indicate the beginning and end of any section of a Java program.

4. **`// This program....`**

   Two slashes indicate a comment in Java. Anything on a line after the // is ignored by the compiler. It is also possible to enclose longer sections of code in a comment using the older style of comments:

   ```
   /*  beginning of comments
   end of comments     */
   ```

5. **`public static void main (String [] args)`**

   Java programs consist of one or more methods (which are sometimes called *functions*, *procedures*, or *subroutines* in other programming languages). If the program is run directly by the Java interpreter, at least one method must be called main. The other terms in the method will be explained later.

6. **`System.out.println("Hello world!");`**

   This statement calls a system method called **`println`** to send a string of characters to the output device (typically an output window on the monitor).

7. Indentation

   Notice that specific parts of the program have been indented. Although not necessary for the program to run properly, it greatly improves the visual appearance and organization of the program.