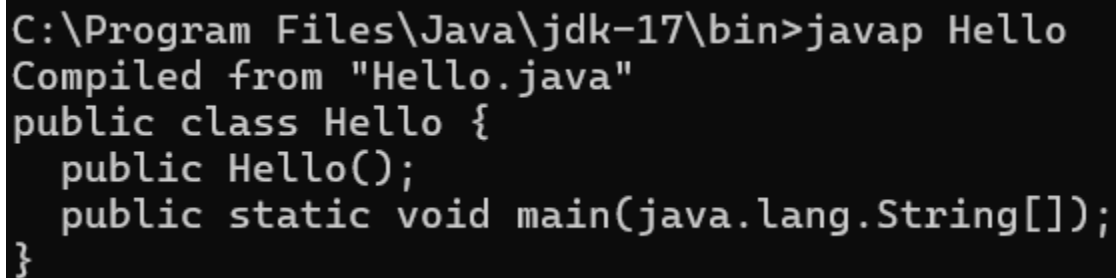## 6. Coding Assignments

1. **Hello World Program**: Write a Java program that prints "Hello World!!" to the console.
2. **Compile with Verbose Option**: Compile your Java file using the `-verbose` option with `javac`. Check the output.
3. **Inspect Bytecode**: Use the `javap` tool to examine the bytecode of the compiled `.class` file. Observe the output.

Hello World Program:

public class Hello{

      public static void main(String args[]){

          System.out.println("Hello,World");

      }

}

O/p: Hello,World

Inspect Bytecode:

```
C:\Program Files\Java\jdk-17\bin>javap Hello
Compiled from "Hello.java"
public class Hello {
  public Hello();
  public static void main(java.lang.String[]);
}
```

Compile with Verbose Option:

```
D:\CDAC\OOPJ\codes\Day1>javac -verbose Hello.java
[parsing started SimpleFileObject[D:\CDAC\OOPJ\codes\Day1\hello.java]]
[parsing completed 19ms]
[loading /modules/jdk.crypto.cryptoki/module-info.class]
[loading /modules/jdk.nio.mapmode/module-info.class]
[loading /modules/java.rmi/module-info.class]
[loading /modules/java.xml/module-info.class]
[loading /modules/jdk.jcmd/module-info.class]
[loading /modules/java.logging/module-info.class]
[loading /modules/jdk.accessibility/module-info.class]
[loading /modules/jdk.javadoc/module-info.class]
[loading /modules/jdk.httpserver/module-info.class]
[loading /modules/jdk.internal.vm.compiler/module-info.class]
[loading /modules/jdk.jstatd/module-info.class]
[loading /modules/java.base/module-info.class]
[loading /modules/jdk.internal.opt/module-info.class]
[loading /modules/jdk.jlink/module-info.class]
[loading /modules/jdk.internal.jvmstat/module-info.class]
[loading /modules/jdk.crypto.ec/module-info.class]
[loading /modules/jdk.net/module-info.class]
[loading /modules/jdk.security.jgss/module-info.class]
[loading /modules/java.scripting/module-info.class]
[loading /modules/java.sql/module-info.class]
[loading /modules/jdk.naming.dns/module-info.class]
[loading /modules/java.datatransfer/module-info.class]
[loading /modules/java.transaction.xa/module-info.class]
[loading /modules/jdk.naming.rmi/module-info.class]
[loading /modules/jdk.security.auth/module-info.class]
[loading /modules/jdk.management/module-info.class]
[loading /modules/jdk.crypto.mscapi/module-info.class]
[loading /modules/jdk.internal.le/module-info.class]
[loading /modules/java.security.jgss/module-info.class]
[loading /modules/java.security.sasl/module-info.class]
[loading /modules/jdk.internal.vm.ci/module-info.class]
[loading /modules/java.instrument/module-info.class]
[loading /modules/java.desktop/module-info.class]
[loading /modules/java.sql.rowset/module-info.class]
[loading /modules/jdk.sctp/module-info.class]
```

```
[loading /modules/java.xml.crypto/module-info.class]
[loading /modules/java.smartcardio/module-info.class]
[loading /modules/jdk.dynalink/module-info.class]
[loading /modules/jdk.zipfs/module-info.class]
[loading /modules/jdk.xml.dom/module-info.class]
[loading /modules/jdk.hotspot.agent/module-info.class]
[loading /modules/jdk.localedata/module-info.class]
[loading /modules/jdk.management.jfr/module-info.class]
[loading /modules/jdk.editpad/module-info.class]
[loading /modules/jdk.charsets/module-info.class]
[loading /modules/jdk.jartool/module-info.class]
[loading /modules/jdk.jsobject/module-info.class]
[loading /modules/jdk.unsupported.desktop/module-info.class]
[loading /modules/jdk.random/module-info.class]
[search path for source files: .]
[search path for class files: C:\Program Files\Java\jdk-17\lib\modules,.]
[loading /modules/java.base/java/lang/Object.class]
[loading /modules/java.base/java/lang/String.class]
[loading /modules/java.base/java/lang/Deprecated.class]
[loading /modules/java.base/java/lang/annotation/Retention.class]
[loading /modules/java.base/java/lang/annotation/RetentionPolicy.class]
[loading /modules/java.base/java/lang/annotation/Target.class]
[loading /modules/java.base/java/lang/annotation/ElementType.class]
[checking Hello]
[loading /modules/java.base/java/io/Serializable.class]
[loading /modules/java.base/java/lang/AutoCloseable.class]
[loading /modules/java.base/java/lang/System.class]
[loading /modules/java.base/java/io/PrintStream.class]
[loading /modules/java.base/java/lang/Appendable.class]
[loading /modules/java.base/java/io/Closeable.class]
[loading /modules/java.base/java/io/FilterOutputStream.class]
[loading /modules/java.base/java/io/OutputStream.class]
[loading /modules/java.base/java/io/Flushable.class]
[loading /modules/java.base/java/lang/Comparable.class]
[loading /modules/java.base/java/lang/CharSequence.class]
[loading /modules/java.base/java/lang/constant/Constable.class]
[loading /modules/java.base/java/lang/constant/ConstantDesc.class]
[wrote Hello.class]
[total 292ms]
```