

### 1. Reading Assignment: A Short History of Java

- **Task:** Read about the history and development of Java.
- **Link:** <http://sunsite.uakom.sk/sunworldonline/swol-07-1995/swol-07-java.html>

### 2. Reading Assignment: Java Language Features

- **Task:** Learn about the main features of Java.
- **Link:** <https://javaalmanac.io/features/>

### 3. Reading Assignment: Which Version of JDK Should I Use?

- **Task:** Find out which JDK version is right for you.
- **Link:** <https://whichjdk.com/>

### 4. Reading Assignment: JDK Installation Directory Structure

- **Task:** Understand the folder structure and files in the JDK installation.
- **Link:** <https://docs.oracle.com/javase/8/docs/technotes/tools/windows/jdkfiles.html>

### 5. Reading Assignment: About Java Technology

- **Task:** Read about the basics of Java technology and its components.
- **Link:** <https://docs.oracle.com/javase/tutorial/getStarted/intro/definition.html>

### 6. Coding Assignments

1. **Hello World Program:** Write a Java program that prints "Hello World!!" to the console.

```
class Demo{  
  
public static void main(String args[]){  
  
System.out.println("Hello World!!");  
  
}  
  
}
```

```
C:\Users\Admin\Desktop\New folder (2)>java Demo  
Hello World!!
```

2. **Compile with Verbose Option:** Compile your Java file using the `-verbose` option with `javac`. Check the output.

## ASSIGNMENT NO.1

```
C:\Users\Admin\Desktop\New folder (2)>javac -verbose Demo.java
[parsing started SimpleFileObject[C:\Users\Admin\Desktop\New folder (2)\Demo.java]]
[parsing completed 16ms]
[loading /modules/java.base/module-info.class]
[loading /modules/jdk.internal.vm.ci/module-info.class]
[loading /modules/jdk.internal.jvmstat/module-info.class]
[loading /modules/java.desktop/module-info.class]
[loading /modules/jdk.accessibility/module-info.class]
[loading /modules/jdk.dynalink/module-info.class]
[loading /modules/jdk.security.jgss/module-info.class]
[loading /modules/jdk.httpserver/module-info.class]
[loading /modules/jdk.security.auth/module-info.class]
[loading /modules/java.security.sasl/module-info.class]
[loading /modules/jdk.net/module-info.class]
[loading /modules/jdk.internal.opt/module-info.class]
[loading /modules/java.compiler/module-info.class]
[loading /modules/java.management/module-info.class]
[loading /modules/jdk.graal.compiler/module-info.class]
[loading /modules/java.sql/module-info.class]
[loading /modules/jdk.management/module-info.class]
[loading /modules/jdk.unsupported.desktop/module-info.class]
```

3. **Inspect Bytecode:** Use the `javap` tool to examine the bytecode of the compiled `.class` file. Observe the output.

```
C:\Users\Admin\Desktop\New folder (2)>javap -c Demo
Compiled from "Demo.java"
class Demo {
    Demo();
    Code:
        0: aload_0
        1: invokespecial #1                  // Method java/lang/Object."<init>":()V
        4: return

    public static void main(java.lang.String[]);
    Code:
        0: getstatic     #7                  // Field java/lang/System.out:Ljava/io/PrintStream;
        3: ldc          #13                 // String Hello World!!
        5: invokevirtual #15                 // Method java/io/PrintStream.println:(Ljava/lang/String;)V
        8: return
}
```

### 7. Reading Assignment: The JVM Architecture Explained

- **Task:** Learn about how the Java Virtual Machine (JVM) works.
- **Link:** <https://dzone.com/articles/jvm-architecture-explained>

### 8. Reading Assignment: The Java Language Environment: Contents

- **Task:** Explore the content and features of the Java language environment.
- **Link:** <https://www.oracle.com/java/technologies/language-environment.html>