

### 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.
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.

## ASSIGNMENT NO.1

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19045.4780]
(c) Microsoft Corporation. All rights reserved.

D:\Java_cdac>javac Hello.java

D:\Java_cdac>javac Hello
error: Class names, 'Hello', are only accepted if annotation processing is explicitly requested
1 error

D:\Java_cdac>java Hello
Hello, World!

D:\Java_cdac>javap -c Hello
Compiled from "Hello.java"
class Hello {
  Hello();
  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
}
```

```
C:\Windows\System32\cmd.exe
D:\Java_cdac>javac -verbose Hello
[loading /modules/java.base/module-info.class]
[loading /modules/jdk.attach/module-info.class]
[loading /modules/jdk.localedata/module-info.class]
[loading /modules/jdk.accessibility/module-info.class]
[loading /modules/jdk.unsupported.desktop/module-info.class]
[loading /modules/jdk.jcmd/module-info.class]
[loading /modules/jdk.jshell/module-info.class]
[loading /modules/jdk.jpackage/module-info.class]
[loading /modules/jdk.jartool/module-info.class]
[loading /modules/jdk.editpad/module-info.class]
[loading /modules/jdk.sctp/module-info.class]
[loading /modules/java.desktop/module-info.class]
[loading /modules/jdk.crypto.ec/module-info.class]
[loading /modules/jdk.naming.dns/module-info.class]
[loading /modules/jdk.incubator.vector/module-info.class]
[loading /modules/java.datatransfer/module-info.class]
[loading /modules/jdk.jfr/module-info.class]
[loading /modules/java.compiler/module-info.class]
[loading /modules/jdk.zipfs/module-info.class]
[loading /modules/java.prefs/module-info.class]
[loading /modules/jdk.crypto.cryptoki/module-info.class]
[loading /modules/jdk.internal.jvmstat/module-info.class]
[loading /modules/jdk.jsobject/module-info.class]
[loading /modules/jdk.management/module-info.class]
[loading /modules/jdk.nio.mapmode/module-info.class]
[loading /modules/jdk.management.jfr/module-info.class]
[loading /modules/java.xml.crypto/module-info.class]
```

## ASSIGNMENT NO.1

```
C:\Windows\System32\cmd.exe
[loading /modules/jdk.security.auth/module-info.class]
[loading /modules/java.security.sasl/module-info.class]
[loading /modules/java.sql.rowset/module-info.class]
[loading /modules/jdk.incubator.concurrent/module-info.class]
[loading /modules/java.security.jgss/module-info.class]
[loading /modules/java.xml/module-info.class]
[loading /modules/jdk.hotspot.agent/module-info.class]
[loading /modules/jdk.unsupported/module-info.class]
[loading /modules/jdk.management.agent/module-info.class]
[loading /modules/jdk.internal.vm.compiler/module-info.class]
[loading /modules/jdk.crypto.mscapi/module-info.class]
[loading /modules/jdk.compiler/module-info.class]
[loading /modules/java.sql/module-info.class]
[loading /modules/jdk.internal.le/module-info.class]
[loading /modules/jdk.jdi/module-info.class]
[loading /modules/jdk.random/module-info.class]
[loading /modules/java.management.rmi/module-info.class]
[loading /modules/java.se/module-info.class]
[loading /modules/java.rmi/module-info.class]
[loading /modules/jdk.internal.vm.compiler.management/module-info.class]
[loading /modules/jdk.httpserver/module-info.class]
[loading /modules/java.management/module-info.class]
[loading /modules/java.naming/module-info.class]
[loading /modules/jdk.internal.vm.ci/module-info.class]
[loading /modules/jdk.javadoc/module-info.class]
[loading /modules/jdk.xml.dom/module-info.class]
error: Class names, 'Hello', are only accepted if annotation processing is explicitly requested
[total 342ms]
1 error
```

### 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>