

## Basic Praticce of Programming Meeting 1



**From:**

AL AZHAR RIZQI RIFA'I FIRDAUS

**Class:**

1 I

**Absence:**

01

**Major:**

Information Technology

**Study Program:**

Informatic Engineering

## Experiment 1: Installing the Java Development Kit/JDK

Screenshoot java binary at file bin

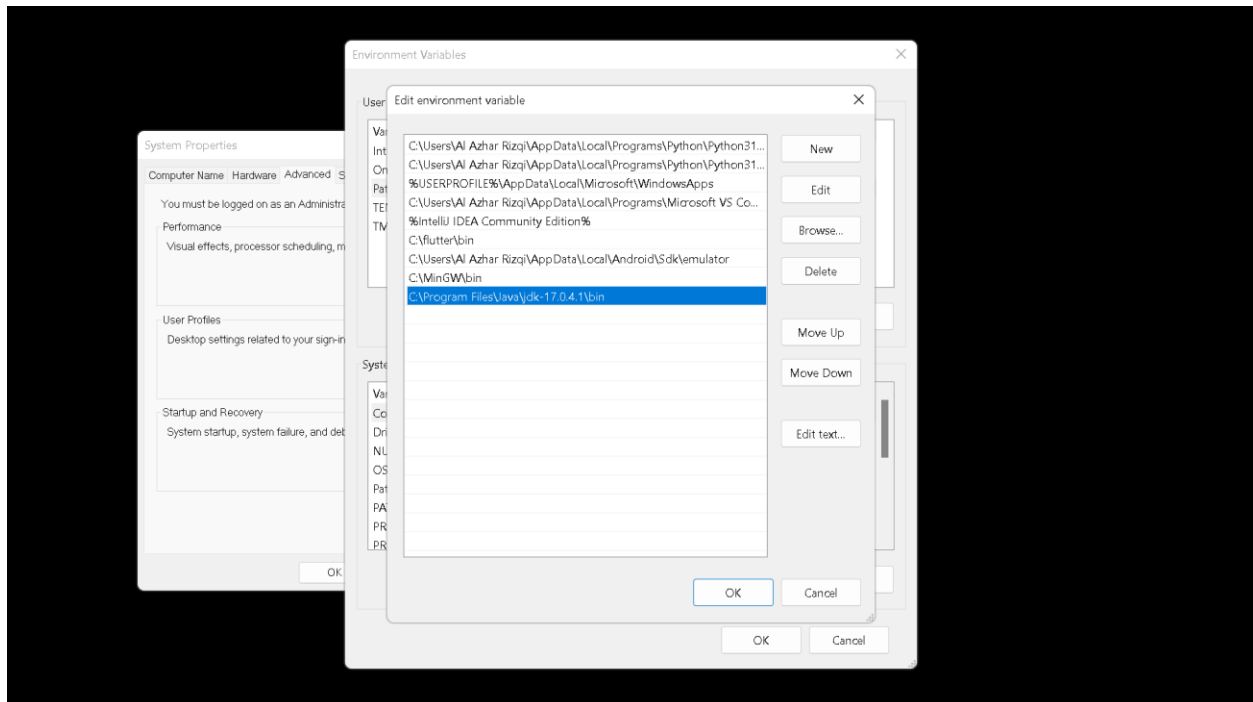
```
Command Prompt
C:\Program Files\Java\jdk-17.0.4.1>dir
Volume in drive C is Zharsuke
Volume Serial Number is 4C5F-960E

Directory of C:\Program Files\Java\jdk-17.0.4.1

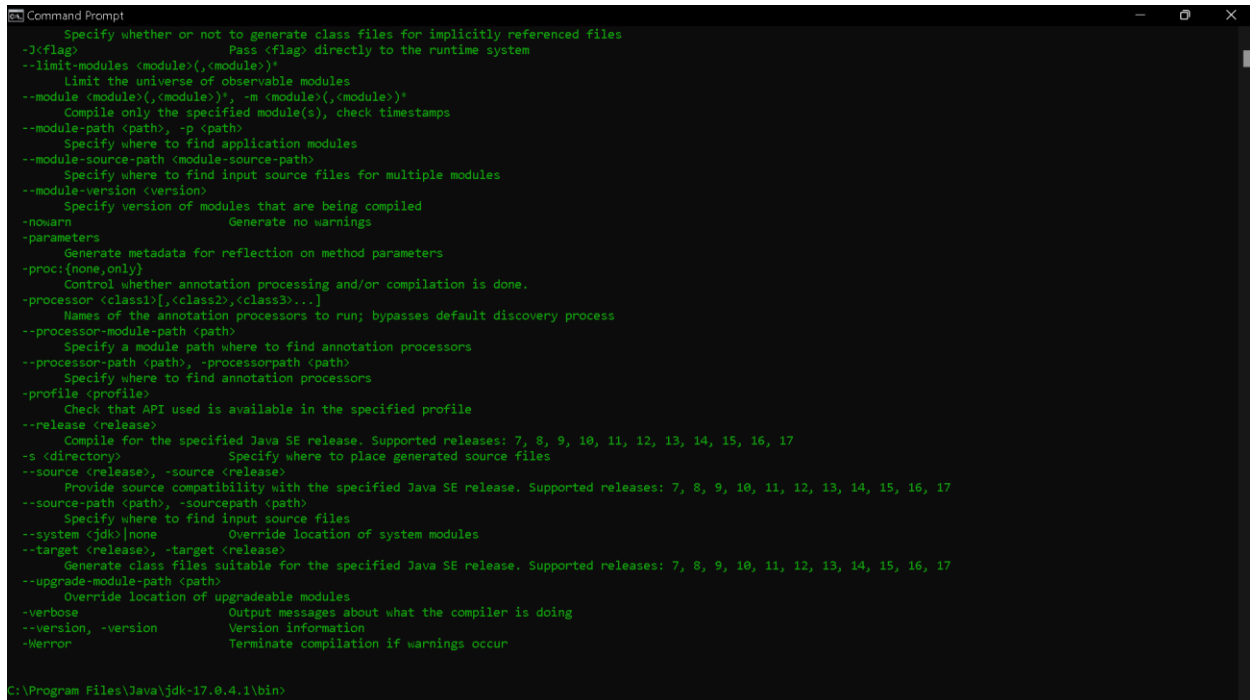
08/31/2022  05:16 PM  <DIR>          .
08/31/2022  05:16 PM  <DIR>          ..
08/31/2022  05:16 PM  <DIR>          bin
08/31/2022  05:16 PM  <DIR>          conf
08/31/2022  05:16 PM  <DIR>          include
08/31/2022  05:16 PM  <DIR>          jmods
08/31/2022  05:16 PM  <DIR>          legal
08/31/2022  05:16 PM  <DIR>          lib
08/31/2022  05:16 PM             6,186 LICENSE
08/31/2022  05:16 PM             290 README
08/31/2022  05:16 PM             1,265 release
               3 File(s)      7,741 bytes
               8 Dir(s)    233,601,744,896 bytes free

C:\Program Files\Java\jdk-17.0.4.1>cd bin
C:\Program Files\Java\jdk-17.0.4.1\bin>
```

Screenshoot path env location



## Screenshoot running javac



```
Specify whether or not to generate class files for implicitly referenced files
-J<flag>                Pass <flag> directly to the runtime system
--limit-modules <module>{,<module>)*
    Limit the universe of observable modules
--module <module>{,<module>)*, -m <module>{,<module>)*
    Compile only the specified module(s), check timestamps
--module-path <path>, -p <path>
    Specify where to find application modules
--module-source-path <module-source-path>
    Specify where to find input source files for multiple modules
--module-version <version>
    Specify version of modules that are being compiled
--nowarn
    Generate no warnings
--parameters
    Generate metadata for reflection on method parameters
--proc:{none,only}
    Control whether annotation processing and/or compilation is done.
--processor <class>[,<class2>,<class3>...]
    Names of the annotation processors to run; bypasses default discovery process
--processor-module-path <path>
    Specify a module path where to find annotation processors
--processor-path <path>, -processorpath <path>
    Specify where to find annotation processors
--profile <profile>
    Check that API used is available in the specified profile
--release <release>
    Compile for the specified Java SE release. Supported releases: 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
-s <directory>
    Specify where to place generated source files
--source <release>, -source <release>
    Provide source compatibility with the specified Java SE release. Supported releases: 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
--source-path <path>, -sourcepath <path>
    Specify where to find input source files
--system <jdk>|none
    Override location of system modules
--target <release>, -target <release>
    Generate class files suitable for the specified Java SE release. Supported releases: 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17
--upgrade-module-path <path>
    Override location of upgradeable modules
--verbose
    Output messages about what the compiler is doing
--version, -version
    Version information
-Werror
    Terminate compilation if warnings occur

C:\Program Files\Java\jdk-17.0.4.1\bin>
```

## Questions

1. Explain the use of entering the location of the Java bin folder into the PATH!
2. Explain the use of the javac command when entering the command prompt!

## Answer

1. To put the directories who want to search when do command at command prompt.
2. Javac is one of binary file at jdk to compile file .java to .class file which one will be execute again with "java" command.

## Experiment 2: Basic Structure of Java

Screenshoot file MyFirstJava00.java



```
2
3 public class MyFirstJava00 {
4     Run | Debug
5     public static void main(String[] args) {
6         System.out.print(s: "My name is AL AZHAR RIZQI RIFA'I FIRDAUS");
7     }
8 }
```

Screenshoot output file MyFirstJava00.java

```
C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>java MyFirstJava00.java
My name is AL AZHAR RIZQI RIFA'I FIRDAUS
C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>
```

## Questions!

1. Explain the function of javac MyFirstJava00.java command in the experiment!
2. Explain the function of java MyFirstJava00 command in the experiment!
3. Add the program code `System.out.println("I am a Student of Informatics Engineering Program");` on line 6, then run the program and explain how the output is!

Code :

```
2
3 public class MyFirstJava00 {
    Run | Debug
4     public static void main(String[] args) {
5         System.out.println(x: "My name is AL AZHAR RIZQI RIFA'I FIRDAUS");
6         System.out.println(x: "I am Student of Informatics Engineering Program");
7     }
8 }
9
```

Output :

```
C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>java MyFirstJava00.java
My name is AL AZHAR RIZQI RIFA'I FIRDAUS
I am Student of Informatics Engineering Program
C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>
```

## Explanation

With add statement :

```
System.out.print(s: "I am Student of Informatics Engineering Program");
```

Output will display "I am Student of Informatics Engineering Program"

4.Code :

```

2
3 public class MyFirstJava00 {
    Run | Debug
4     public static void main(String[] args) {
5         System.out.print(s: "My name is AL AZHAR RIZQI RIFA'I FIRDAUS");
6
7         System.out.print(s: "I am Student of Informatics Engineering Program");
8
9     }
10 }
11

```

Output :

```

C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>java MyFirstJava00.java
My name is AL AZHAR RIZQI RIFA'I FIRDAUSI am Student of Informatics Engineering Program
C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>

```

5. The difference between

```
System.out.println(x: "...");
```

With

```
System.out.print(s: "...");
```

Is on adding enter to the output where 'println' add enter at the end of its output and 'print' does not.

6. Code :

```

2
3 public class MyFirstJava00 {
    Run | Debug
4     public static void main(String[] args) {
5
6         System.out.print(s: "My name is AL AZHAR RIZQI RIFA'I FIRDAUS");
7
8         System.out.print(s: "\nI am Student of Informatics Engineering Program");
9     }
10 }
11

```

7. The function symbol \n to add enter newline at output.

8. Code :

```

2
3 public class MyFirstJava00 {
    Run | Debug
4     public static void main(String[] args) {
5         System.out.print(s: "My name is AL AZHAR RIZQI RIFA'I FIRDAUS");
6         //System.out.print("\nI am Student of Informatics Engineering Program");
7     }
8 }
9

```

## 9. Program observation

10. The function from // symbol to give comment at code useful to give description with human language at code too much and too complicated.

## Assignment

Code :

```

2 public class tugas {
    Run | Debug
3     public static void main(String[] args) {
4
5         System.out.println(x: "-----");
6         System.out.println(x: "Biodata of Information Technology Departement students");
7         System.out.println(x: "-----");
8         System.out.println(x: "Name\t: AL AZHAR RIZQI RIFA'I FIRDAUS");
9         System.out.println(x: "NIM\t: 2241720263");
10        System.out.println(x: "Address\t: Candi Agung IV Street Number 10");
11        System.out.println(x: "Phone\t: 0895366608834");
12        System.out.println(x: "Hobby\t: Jogging, playing badminton, swimming, reading a book");
13    }
14 }
15

```

Output :

```

C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>java tugas.java
-----
Biodata of Information Technology Departement students
-----
Name      : AL AZHAR RIZQI RIFA'I FIRDAUS
NIM       : 2241720263
Address   : Candi Agung IV Street Number 10
Phone     : 0895366608834
Hobby     : Jogging, playing badminton, swimming, reading a book
C:\Users\Al Azhar Rizqi\Documents\Kuliah\Praktikum Dasar Pemrograman\coding>

```

Explanation :

The above program aims to display output in the form of your own identity, which uses the statement `System.out.println()` as a means of outputting the terminal.