

## Question

1. Why do we have to enter the bin folder location from Java into the PATH variable?

Answer : Adding the bin folder of your Java installation to your PATH allows you to easily run Java commands, run Java applications, and compile Java code from any directory without specifying the full path to the Java executable every time.

2. What is the use of javac command when entered at the command prompt!

Answer : It is used to compile Java source code files into bytecode, which can be executed by the Java Virtual Machine (JVM). This two-step process of compiling and then running Java code allows for platform independence and thorough error checking.

## Question!

1. What is the use of javac command in the above steps? (javac MyFirstJava00.java)

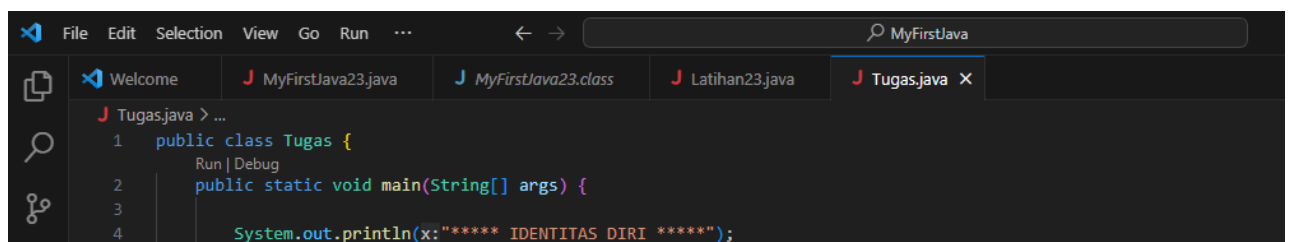
Answer : The javac MyFirstJava00.java command is used to compile a Java source code file named "MyFirstJava00.java" into bytecode. This process involves checking the code for syntax errors and generating a ".class" file that contains instructions that can be executed by the Java Virtual Machine (JVM).

2. What is the use of java command in the above experiment? (java MyFirstJava00)

Answer : java MyFirstJava00 command is used to run a Java program that has been compiled into bytecode.

3. What is the use of main method in java programming, what is the format of main method?

Answer : In Java programming, the main method is a special method that serves as the entry point for a Java application. When you run a Java program, the Java Virtual Machine (JVM) starts executing code from the main method. The main method is required in every Java application, and it has a specific format :

A screenshot of an IDE window titled 'MyFirstJava'. The window shows a Java file named 'Tugas.java' with the following code:

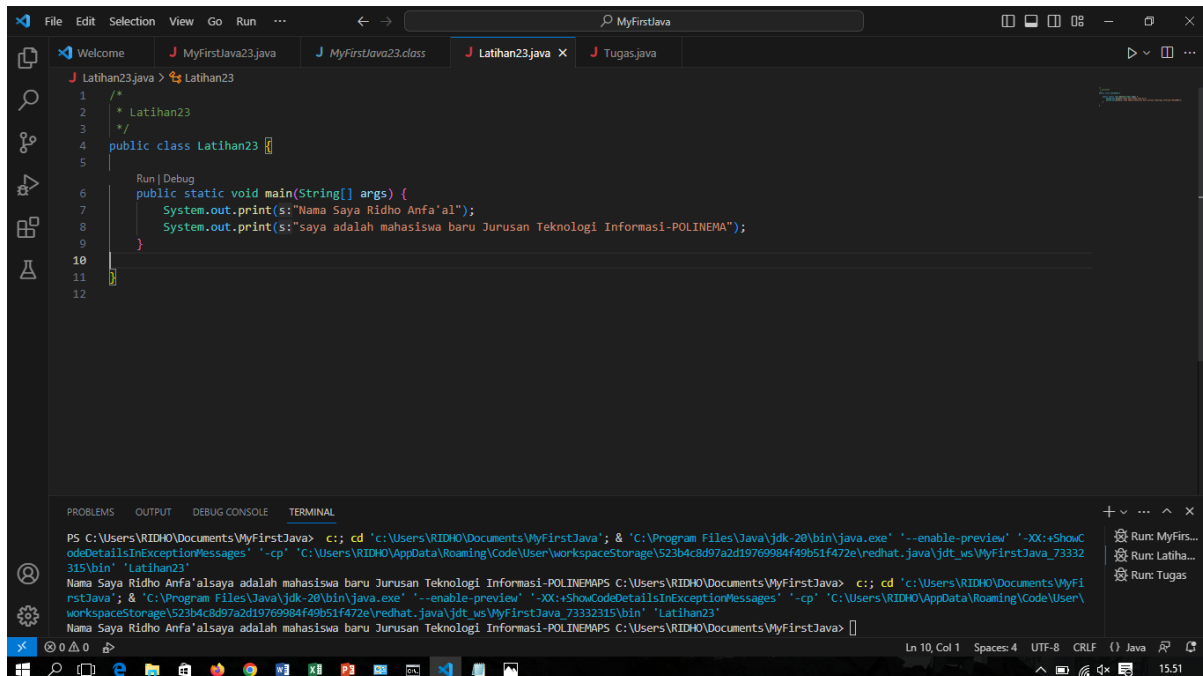
```
1 public class Tugas {  
2     public static void main(String[] args) {  
3  
4         System.out.println(x:"***** IDENTITAS DIRI *****");  
}
```

The code is displayed with syntax highlighting. The IDE interface includes a menu bar (File, Edit, Selection, View, Go, Run, ...), a toolbar with icons for file operations, and a sidebar with icons for project structure, search, and source control.

## Question!

1. Change the statement `System.out.println` to be `System.out.print` at line 7 and 8, then run the program!

Answer :



The screenshot shows an IDE with a Java file named `Latihan23.java`. The code is as follows:

```
1  /*  
2   * Latihan23  
3   */  
4  public class Latihan23 {  
5  
6      Run | Debug  
7      public static void main(String[] args) {  
8          System.out.print(s:"Nama Saya Ridho Anfa'al");  
9          System.out.print(s:"saya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMA");  
10     }  
11  
12 }
```

The bottom panel shows the terminal output:

```
PS C:\Users\RIDHO\Documents\MyFirstJava> c:; cd 'c:\Users\RIDHO\Documents\MyFirstJava'; & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\RIDHO\AppData\Roaming\Code\User\workspaceStorage\523b4c8d97a2d19769984f49b51f472e\redhat.java\jdt_ws\MyFirstJava_73332315\bin' 'Latihan23'  
Nama Saya Ridho Anfa'alsaya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMAPS C:\Users\RIDHO\Documents\MyFirstJava> c:; cd 'c:\Users\RIDHO\Documents\MyFirstJava'; & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\RIDHO\AppData\Roaming\Code\User\workspaceStorage\523b4c8d97a2d19769984f49b51f472e\redhat.java\jdt_ws\MyFirstJava_73332315\bin' 'Latihan23'  
Nama Saya Ridho Anfa'alsaya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMAPS C:\Users\RIDHO\Documents\MyFirstJava>
```

2. What is the difference between `System.out.println(".....");` and `System.out.print(".....");`?

Answer : `System.out.println` : the next output will appear on the next line in the console

Ex : `System.out.println("Hello");`

`System.out.println("World");`

Output : Hello

World

`System.out.print` : subsequent output will appear on the same line as the previous output.

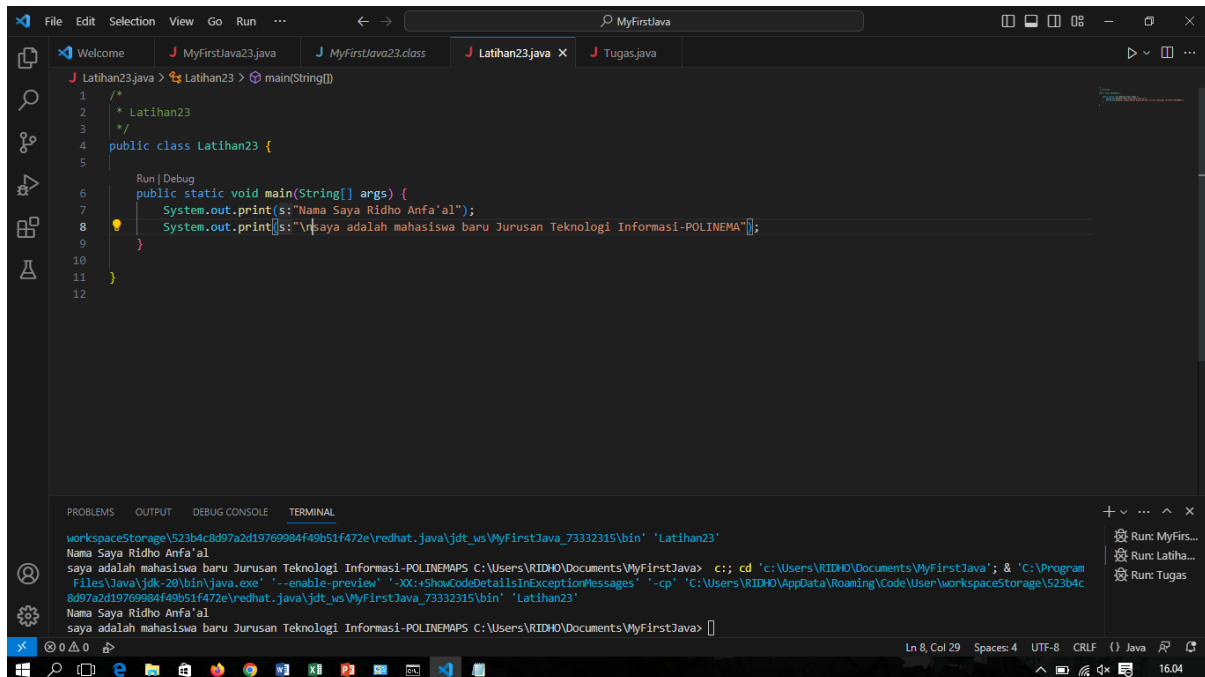
Ex : `System.out.print("Hello");`

`System.out.print("World");`

Output : HelloWorld

3. Change the statement at line 8 as the following syntax! `System.out.print("\nsaya adalah Mahasiswa Jurusan Teknologi Informasi - POLINEMA");`

Answer :



The screenshot shows an IDE with a Java file named `Latihan23.java`. The code is as follows:

```
1  /*  
2   * Latihan23  
3   */  
4  public class Latihan23 {  
5  
6      Run | Debug  
7      public static void main(String[] args) {  
8          System.out.print(s:"Nama Saya Ridho Anfa'al");  
9          System.out.print(s:"\nsaya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMA");  
10     }  
11 }  
12
```

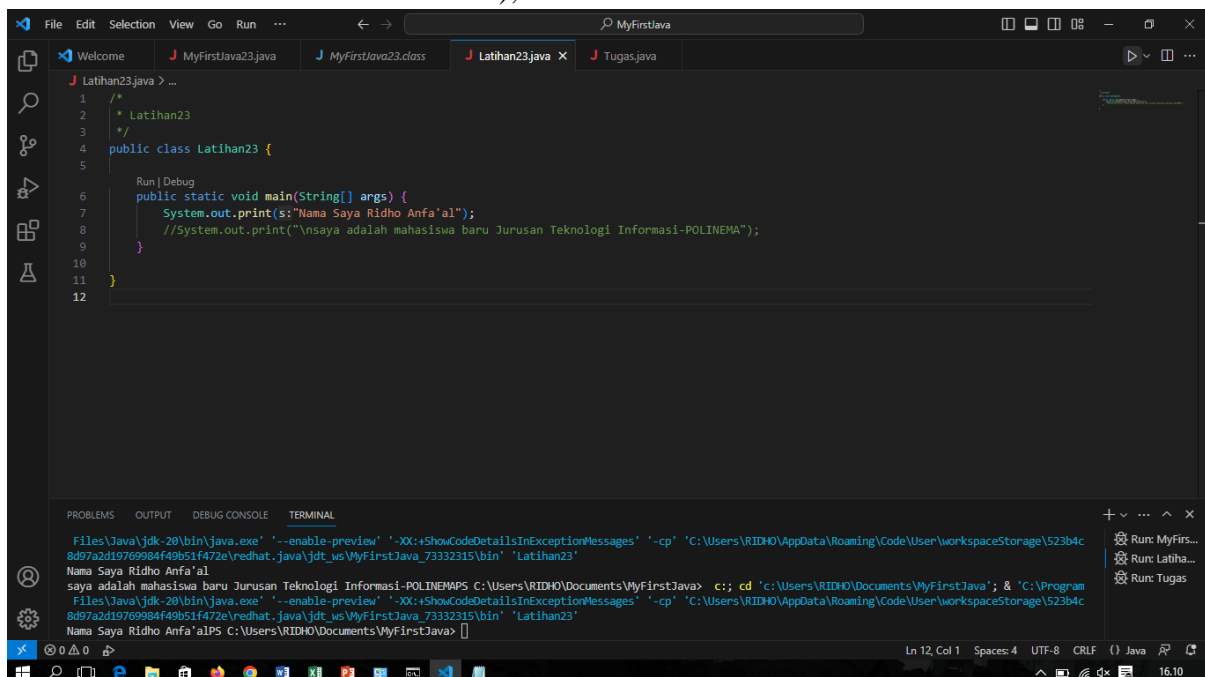
The output window shows the execution results:

```
workspaceStorage\523b4c8d97a2d19769984f49b51f472e\redhat.java\jdt_ws\MyFirstJava_73332315\bin' 'Latihan23'  
Nama Saya Ridho Anfa'al  
saya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMA  
C:\Users\RIDHO\Documents\MyFirstJava> c:: cd 'C:\Users\RIDHO\Documents\MyFirstJava'; & 'C:\Program  
Files\Java\jdk-20\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\RIDHO\AppData\Roaming\Code\User\workspaceStorage\523b4c  
8d97a2d19769984f49b51f472e\redhat.java\jdt_ws\MyFirstJava_73332315\bin' 'Latihan23'  
Nama Saya Ridho Anfa'al  
saya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMA  
C:\Users\RIDHO\Documents\MyFirstJava>
```

4. What is the use of `\n` at line 8!

Answer : When you include `\n` in a string, it tells Java to start a new line at that point in the text.

5. Still at line 8, add character `//` in front of the source code! `//System.out.print("\nsaya adalah Mahasiswa Prodi Teknik Informatika");` Answer :



The screenshot shows the same IDE with the code updated to include a commented-out line:

```
1  /*  
2   * Latihan23  
3   */  
4  public class Latihan23 {  
5  
6      Run | Debug  
7      public static void main(String[] args) {  
8          System.out.print(s:"Nama Saya Ridho Anfa'al");  
9          //System.out.print("\nsaya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMA");  
10     }  
11 }  
12
```

The output window shows the execution results:

```
Files\Java\jdk-20\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\RIDHO\AppData\Roaming\Code\User\workspaceStorage\523b4c  
8d97a2d19769984f49b51f472e\redhat.java\jdt_ws\MyFirstJava_73332315\bin' 'Latihan23'  
Nama Saya Ridho Anfa'al  
saya adalah mahasiswa baru Jurusan Teknologi Informasi-POLINEMA  
C:\Users\RIDHO\Documents\MyFirstJava> c:: cd 'C:\Users\RIDHO\Documents\MyFirstJava'; & 'C:\Program  
Files\Java\jdk-20\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\RIDHO\AppData\Roaming\Code\User\workspaceStorage\523b4c  
8d97a2d19769984f49b51f472e\redhat.java\jdt_ws\MyFirstJava_73332315\bin' 'Latihan23'  
Nama Saya Ridho Anfa'alPS C:\Users\RIDHO\Documents\MyFirstJava>
```

6. Run the program and observe the result! And what is the use of character // ?

Answer : In Java, // is used to create a single-line comment. Comments are non-executable lines of text that are ignored by the Java compiler.

## 1. Assignment

Create a Java program with the following output, then explain the program you have created!

\*\*\*\*\* IDENTITAS DIRI \*\*\*\*\*

Nama : XXXXX

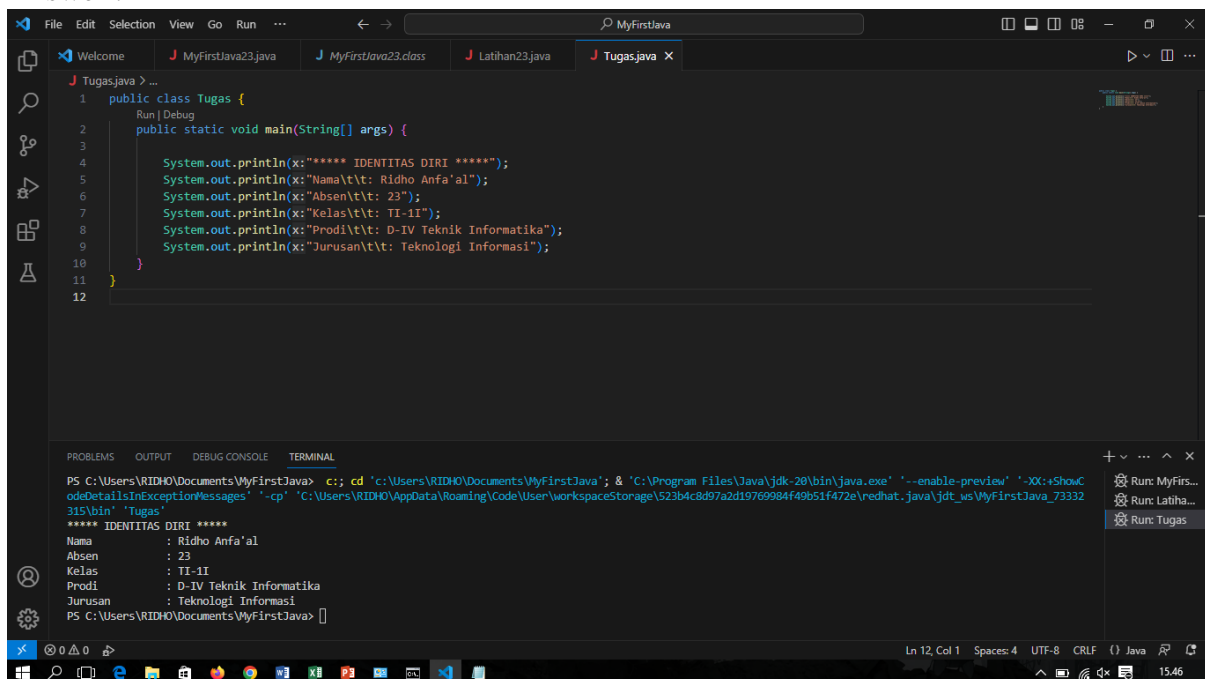
Absen : XXXXX

Kelas : XXXXX

Prodi : XXXXX

Jurusan : XXXXX

Answer :



The screenshot shows an IDE with a Java file named 'Tugas.java'. The code defines a class 'Tugas' with a 'main' method that prints personal information. The output window shows the program's execution, displaying the same information as the assignment requirements. The terminal window shows the command used to run the program.

```
public class Tugas {  
    public static void main(String[] args) {  
        System.out.println(x:"***** IDENTITAS DIRI *****");  
        System.out.println(x:"Nama\t\t: Ridho Anfa'al");  
        System.out.println(x:"Absen\t\t: 23");  
        System.out.println(x:"Kelas\t\t: TI-11");  
        System.out.println(x:"Prodi\t\t: D-IV Teknik Informatika");  
        System.out.println(x:"Jurusan\t\t: Teknologi Informasi");  
    }  
}
```

\*\*\*\*\* IDENTITAS DIRI \*\*\*\*\*  
Nama : Ridho Anfa'al  
Absen : 23  
Kelas : TI-11  
Prodi : D-IV Teknik Informatika  
Jurusan : Teknologi Informasi

PS C:\Users\RIDHO\Documents\MyFirstJava> c:\cd 'c:\Users\RIDHO\Documents\MyFirstJava'; & 'C:\Program Files\Java\jdk-20\bin\java.exe' '-enable-preview' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\RIDHO\AppData\Roaming\Code\User\workspaceStorage\523b4c8d97a2d19769984f49b51f472e\redhat\_java\jdt\_ws\MyFirstJava\_73332315\bin' 'Tugas'