Setting up Java 21 (MacOS)

Setting up Java 21

1. Check Java Version

java –version

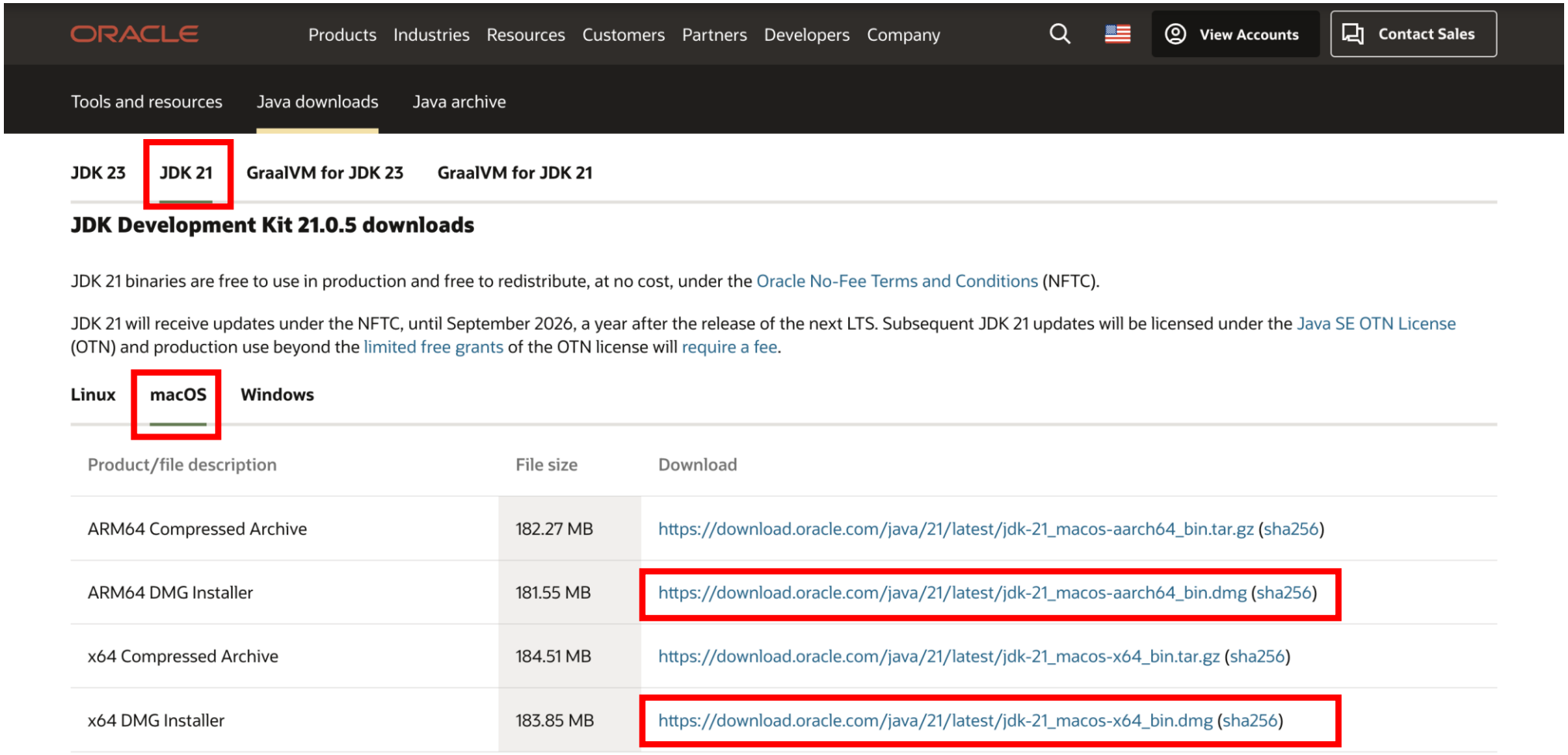
If Java is already installed, the command will display the version of Java you have. If not, proceed with next installation steps.

```
java --version
openjdk 21.0.2 2024-01-16 LTS
OpenJDK Runtime Environment Temurin-21.0.2+13 (build 21.0.2+13-LTS)
OpenJDK 64-Bit Server VM Temurin-21.0.2+13 (build 21.0.2+13-LTS, mixed
mode)
```

Setting up Java 21

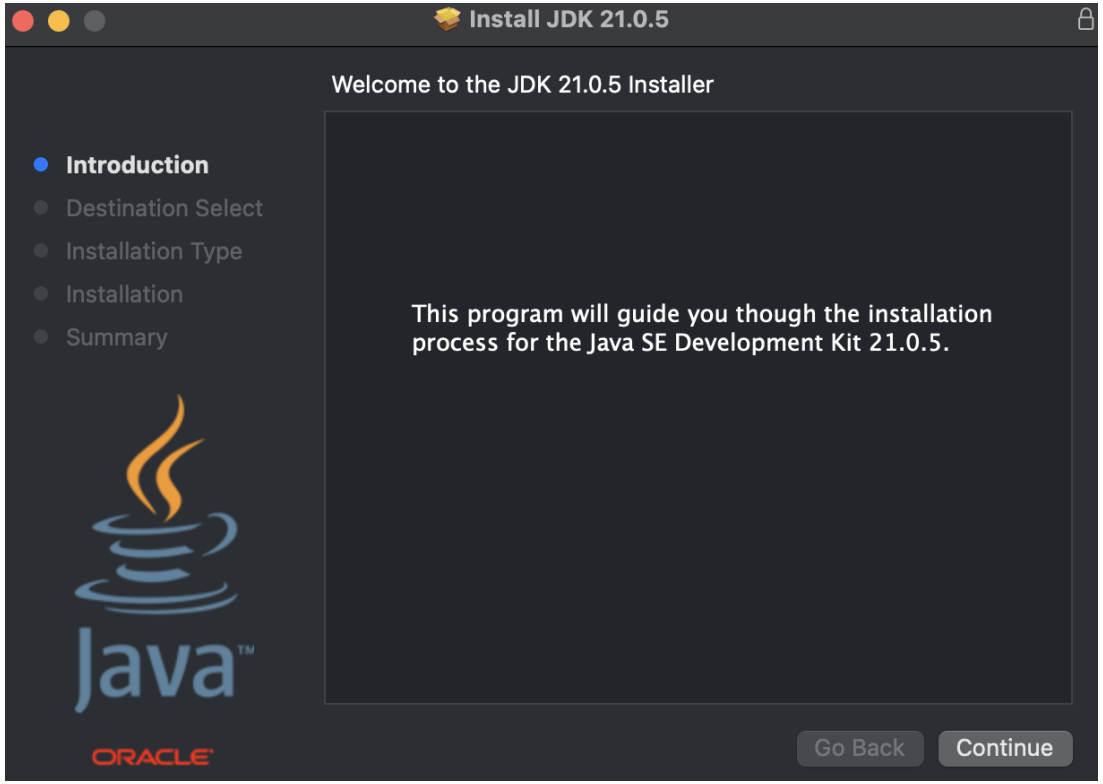
2. Download Java Visit the official Oracle Java website

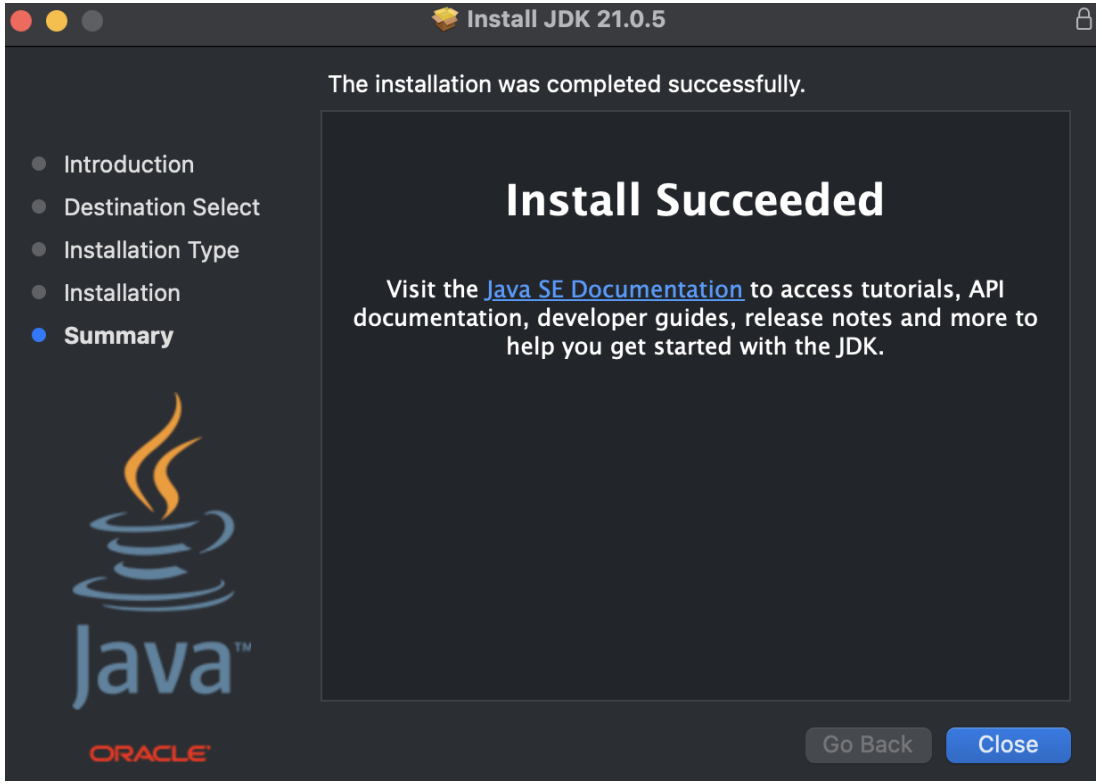
https://www.oracle.com/java/technologies/downloads



Setting up Java 21

3. Install downloaded DMG installer





Setting up Java 21

4. Verify Installation

java –version

After installation, open Terminal again and enter the following command to verify that Java is installed correctly:

```
java -version
java version "21.0.5" 2024-10-15 LTS
Java(TM) SE Runtime Environment (build 21.0.5+9-LTS-239)
Java HotSpot(TM) 64-Bit Server VM (build 21.0.5+9-LTS-239, mixed mode,
sharing)
```

Setting up Java 21 (Windows)

Setting up Java 21

1. Check Java Version

java –version

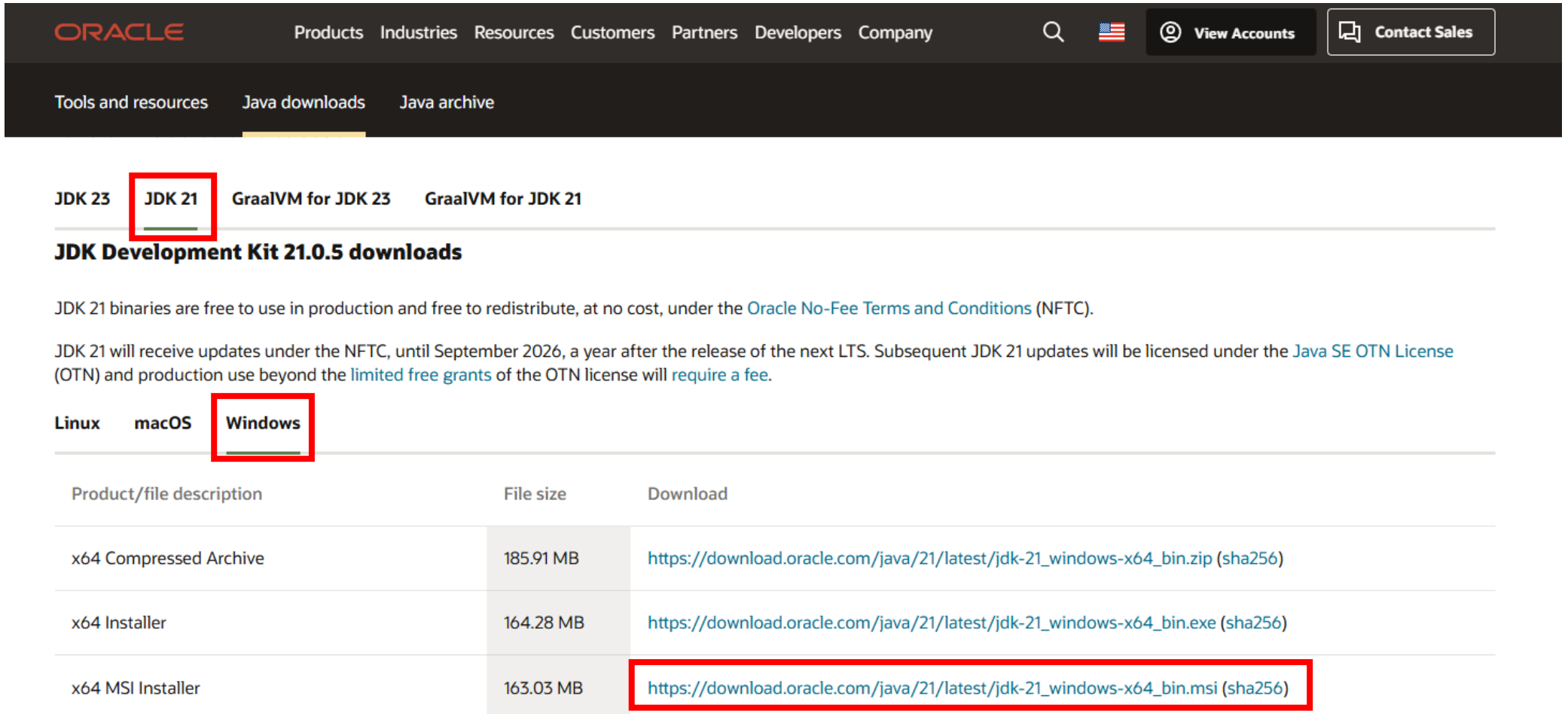
If Java is already installed, the command will display the version of Java you have. If not, proceed with next installation steps.

```
java --version
openjdk 21.0.2 2024-01-16 LTS
OpenJDK Runtime Environment Temurin-21.0.2+13 (build 21.0.2+13-LTS)
OpenJDK 64-Bit Server VM Temurin-21.0.2+13 (build 21.0.2+13-LTS, mixed
mode)
```

Setting up Java 21

2. Download Java Visit the official Oracle Java website

https://www.oracle.com/java/technologies/downloads



Setting up Java 21

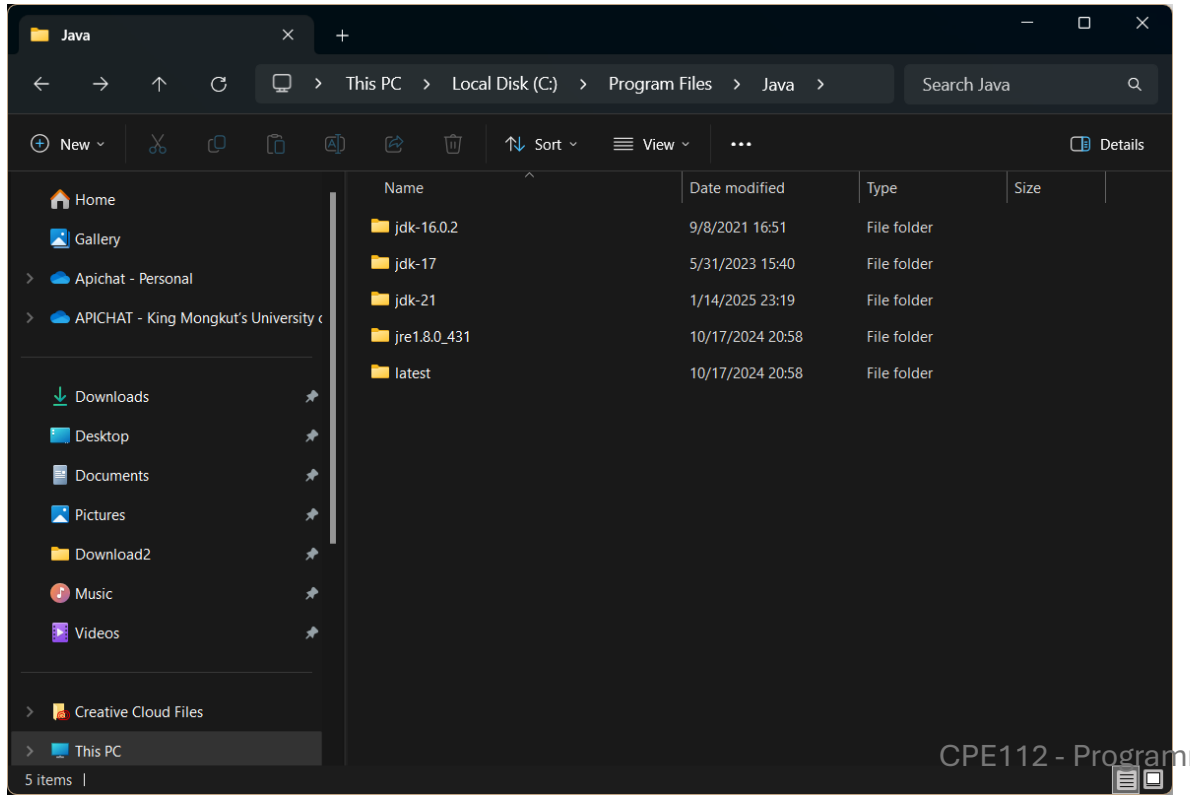
3. Install downloaded MSI installer

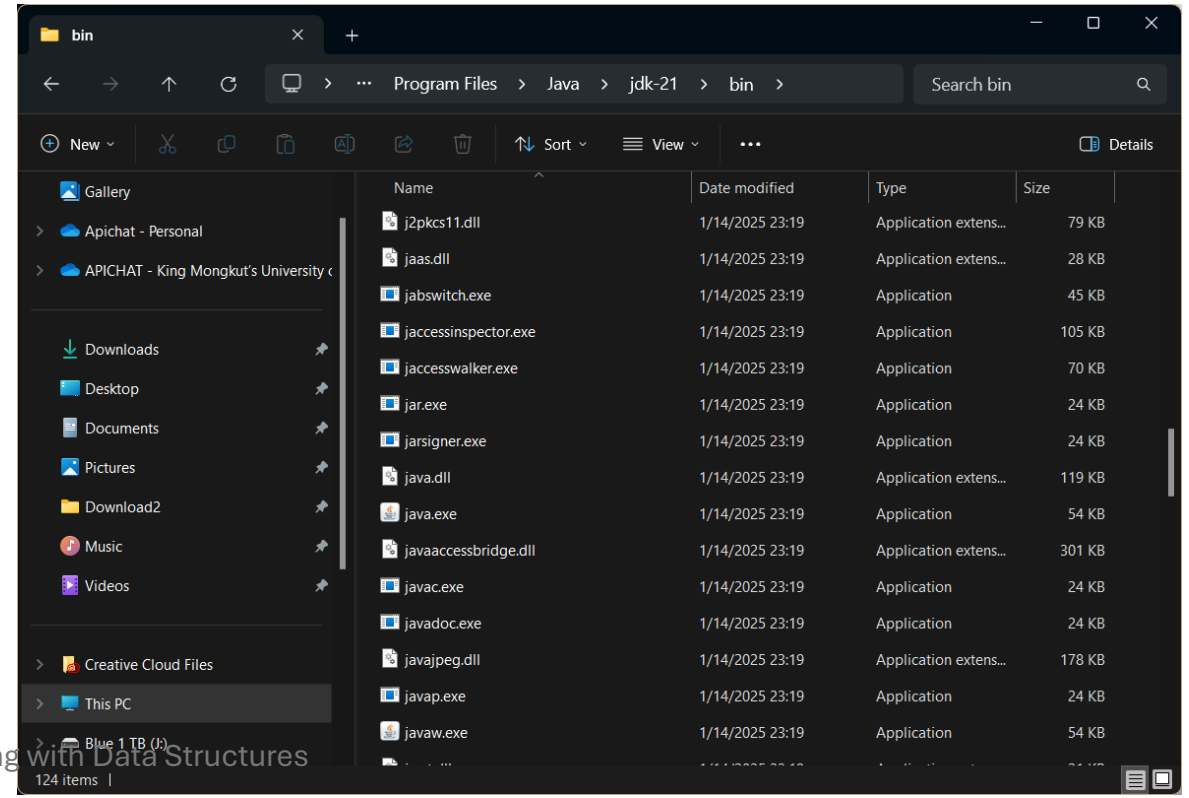
Setting up Java 21

4. Configure Environment Variables

After the installation is complete, we have to configure environment variables to notify the system about the directory in which JDK files are located. Proceed to

C:\Program Files\Java\jdk-21\bin



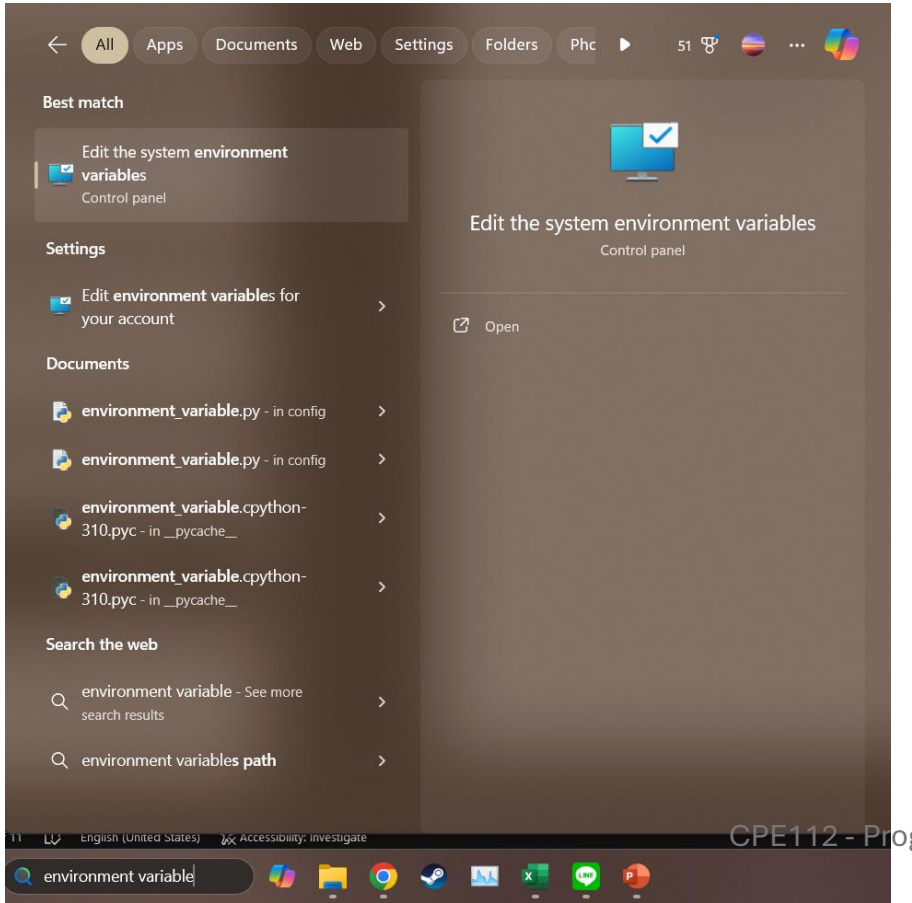


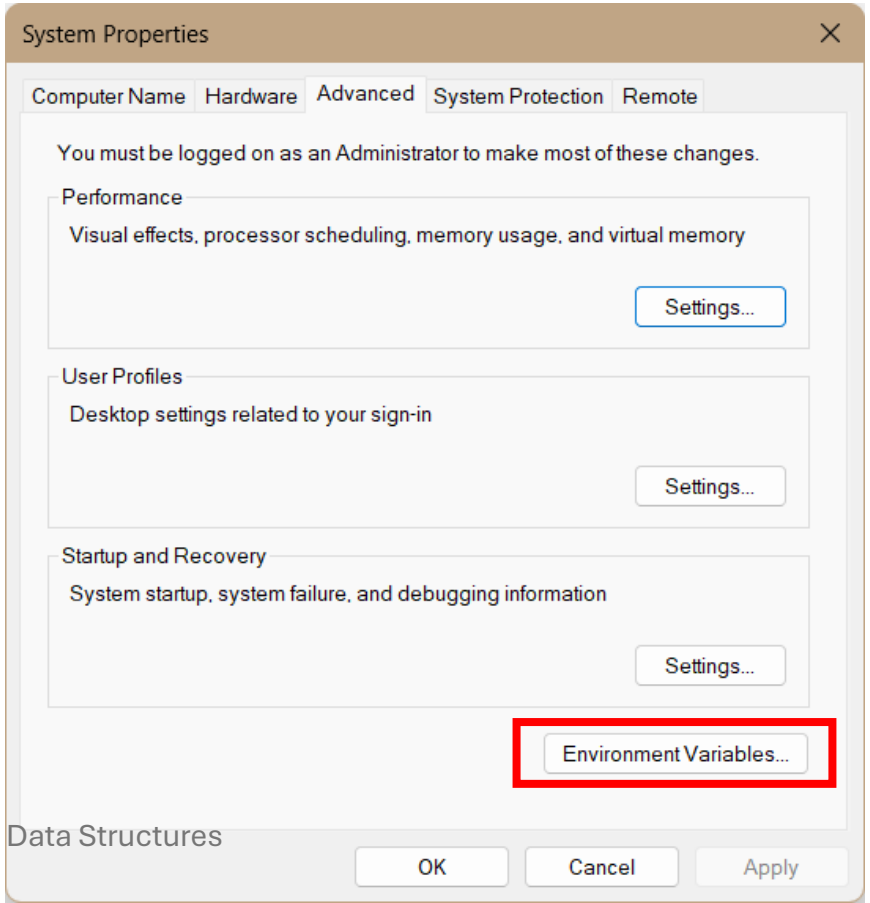
Setting up Java 21

4. Configure Environment Variables

To set the Environment Variables, you need to search Environment Variables in the Taskbar and click on

“ Edit the system environment variables ”

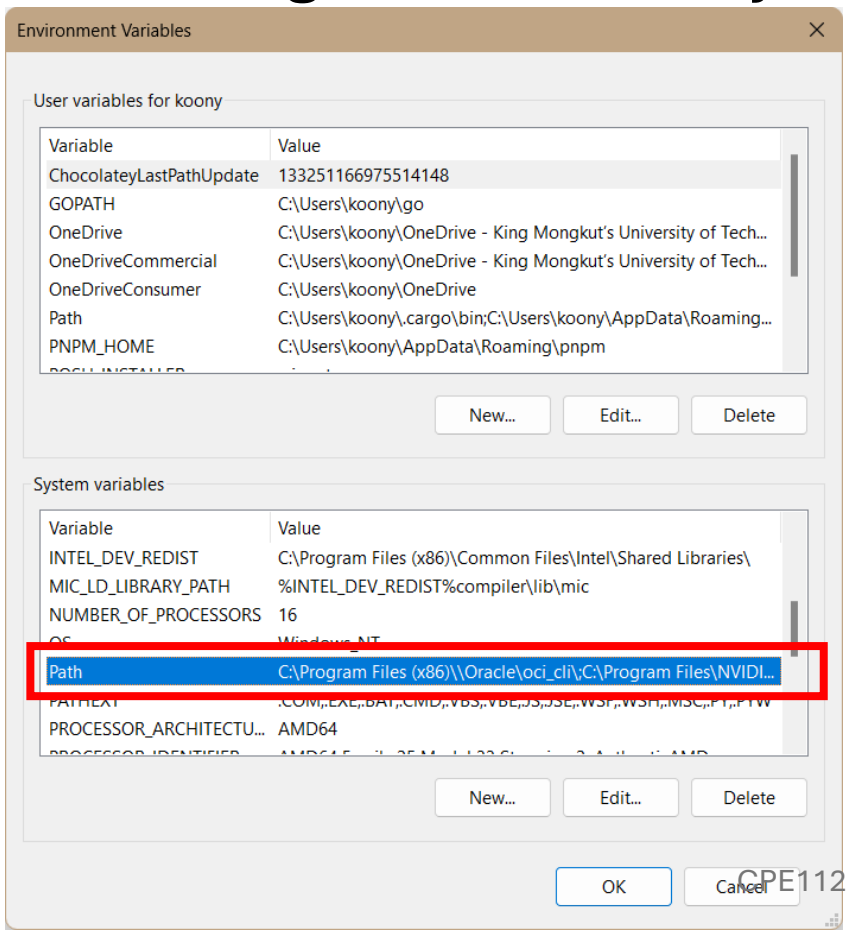


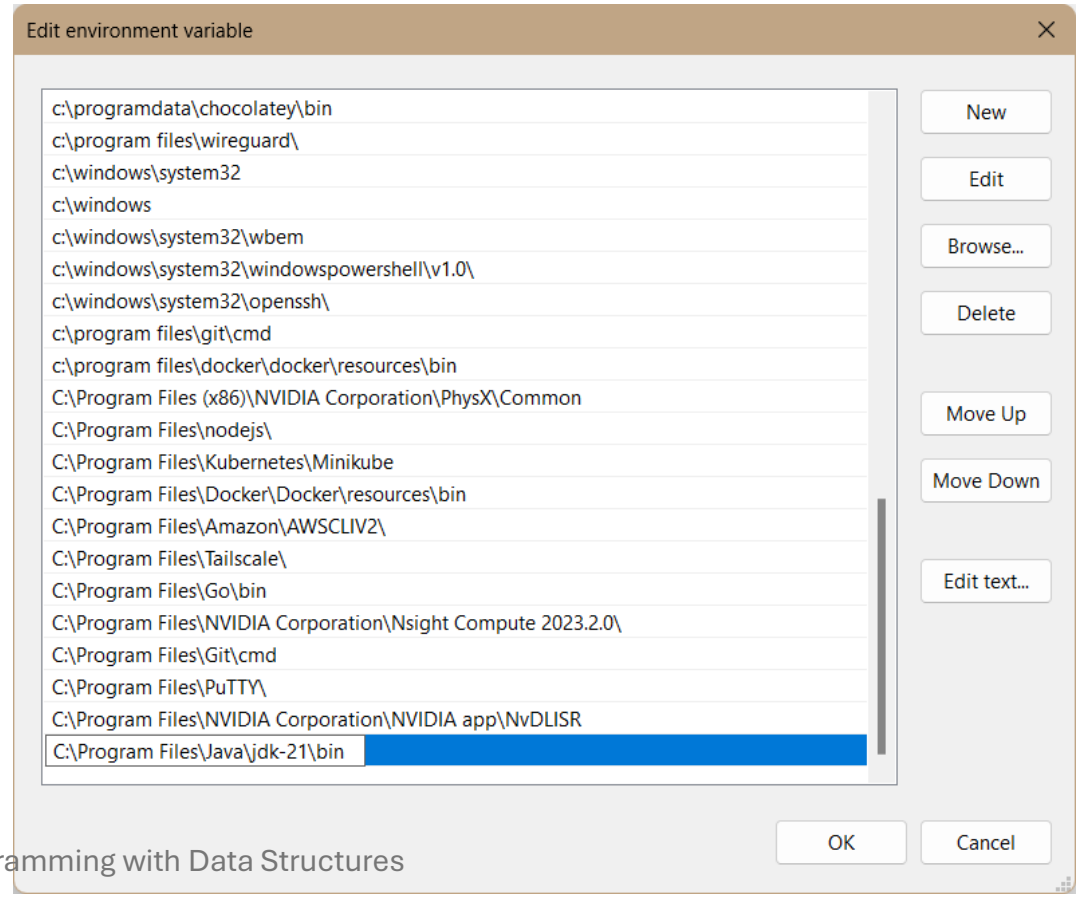


Setting up Java 21

4. Configure Environment Variables

Under System variables, select the **“Path”** variable and click on **“Edit”.** Click on **“New”** then paste the Path Address i.e. **C:\Program Files\Java\jdk-21\bin**. Click on **“OK”.**



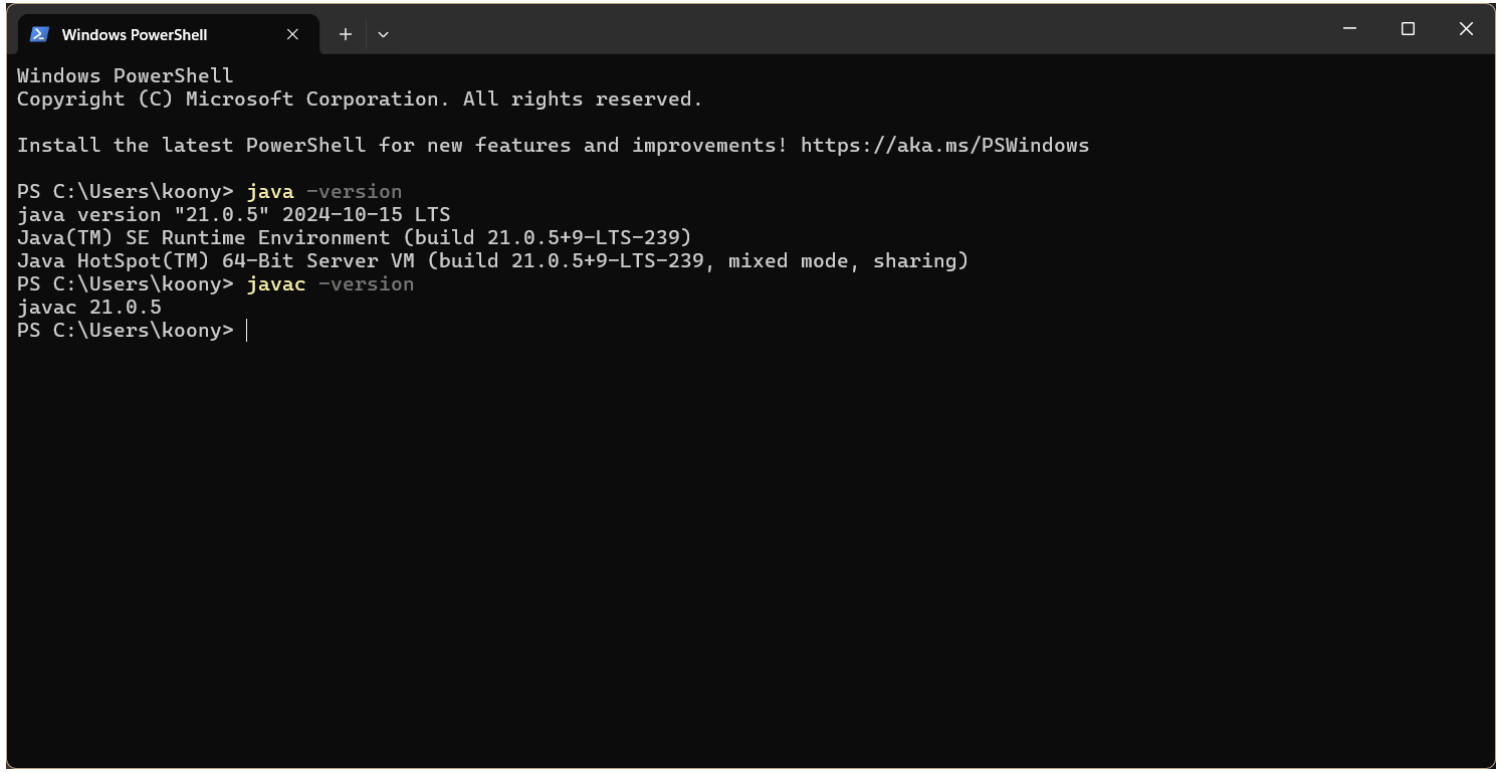


Setting up Java 21

5. Verify Installation

java –version

After installation, open Terminal again and enter the following command to verify that Java is installed correctly:



Basic Java for Data Structure

Hello World

@ helloWorld.java

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

Hello World

@ helloWorld.java

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

Compiling

```
> javac helloWorld.java
```

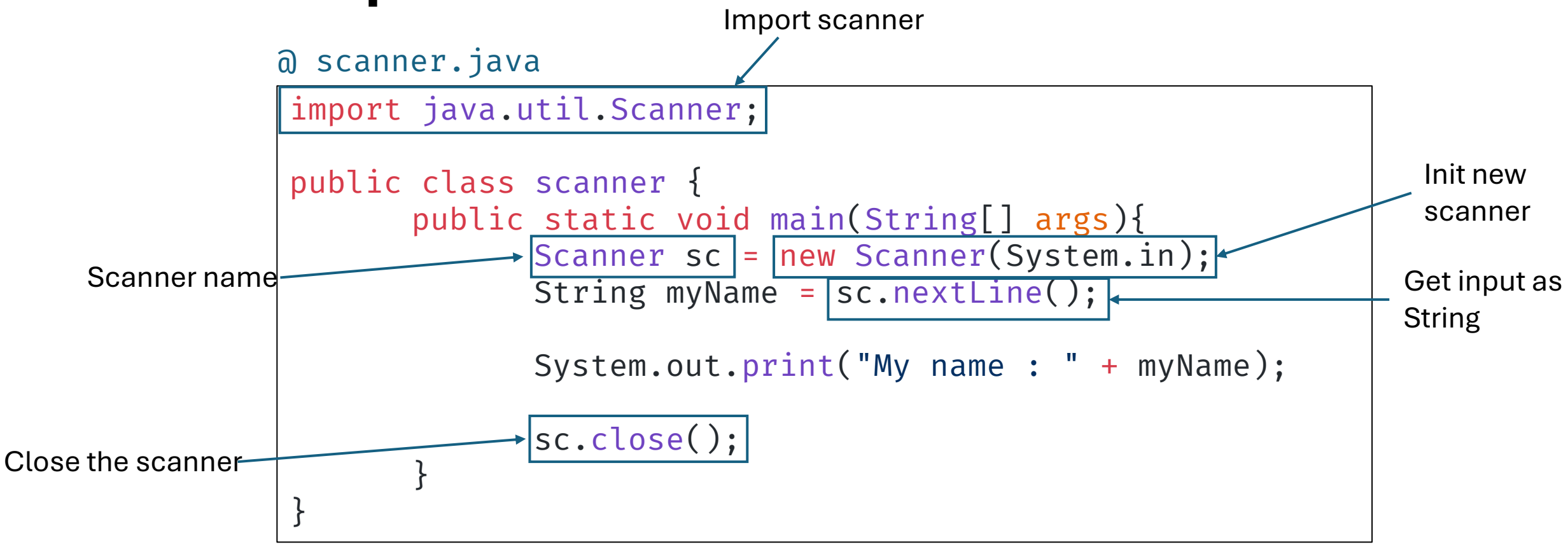
You'll get

- helloWorld.class

Running

```
> java helloWorld
```

Get User Input



Compiling & Running

```
> javac scanner.java && java scanner
KMUTT
My name : KMUTT%
```

Get User Input

Declare function

@ scanner.java

```java
import java.util.Scanner;

public class scanner {
    static void yourName(String name){
        System.out.println("My name : " + name);
    }
    public static void main(String[] args){
        Scanner sc = new Scanner(System.in);
        int n = Integer.parseInt(sc.nextLine());

        for(int i = 0; i < n; i++){
                yourName(sc.nextLine());
        }

        sc.close();
    }
}
```

*try to use

```java
int n = sc.nextInt();
```

Get User Input

Declare function

@ scanner.java

```java
import java.util.Scanner;

public class scanner {
    static void yourName(String name){
        System.out.println("My name : " + name);
    }
    public static void main(String[] args){
        Scanner sc = new Scanner(System.in);
        int n = Integer.parseInt(sc.nextLine());

        for(int i = 0; i < n; i++){
                yourName(sc.nextLine());
        }

        sc.close();
    }
}
```

*try to use

```java
int n = sc.nextInt();
```

Input Types

Method	Description
`nextBoolean()`	Reads a boolean value from the user
`nextByte()`	Reads a byte value from the user
`nextDouble()`	Reads a double value from the user
`nextFloat()`	Reads a float value from the user
`nextInt()`	Reads a int value from the user
`nextLine()`	Reads a String value from the user
`nextLong()`	Reads a long value from the user
`nextShort()`	Reads a short value from the user

Array

@array.java

```java
Scanner sc = new Scanner(System.in);

int n = Integer.parseInt(sc.nextLine());
String[] nameList = new String[n];

for(int i = 0; i < n; i++){
        nameList[i] = sc.nextLine();
}

for(String name : nameList){
        System.out.println(name);
}

sc.close();
```

Declare array

Enhanced for loop