Experiment No. 5
Implement a program on Packages.
Date of Performance:
Date of Submission:

Aim: To use packages in java.

Objective: To use packages in java to use readymade classes available in them using square root method in math class.

Theory:

A java package is a group of similar types of classes, interfaces and sub-packages. Packages are used in Java in order to prevent naming conflicts, to control access, to make searching/locating and usage of classes, interfaces, enumerations and annotations easier, etc.

There are two types of packages-

1. Built-in package: The already defined package like java.io.*, java.lang.* etc are known as built-in packages.

2. User defined package: The package we create for is called user-defined package.

Programmers can define their own packages to bundle group of classes/interfaces, etc. While creating a package, the user should choose a name for the package and include a package statement along with that name at the top of every source file that contains the classes, interfaces, enumerations, and annotation types that you want to include in the package. If a package statement is not used then the class, interfaces, enumerations, and annotation types will be placed in the current default package.

Code:
```java
import java.util.*;

// Main Class
class demo1 {

        // Main driver method
        public static void main(String[] args)
        {

                // Scanner to take input from the user object
                Scanner myObj = new Scanner(System.in);
                String userName;
```

```
        // Display message
        // Enter Your Name And Press Enter
        System.out.println("Enter Your Name:");

        // Reading the integer age entered using
        // nextInt() method
        userName = myObj.nextLine();

        // Print and display
        System.out.println("Your Name is : " + userName);
    }
}
```

```
Enter Your Name:
Shardul Brid
Your Name is : Shardul Brid
```

Conclusion:

Comment on the autoencoder architecture and the Image compression results.
Autoencoders are neural networks used for data compression. They consist of an encoder to reduce data dimensions and a decoder to reconstruct the data. In Java, you can build an autoencoder for image compression. Results will include smaller-sized images that maintain essential features, useful for storage and transmission, but with some loss of detail due to the compression.