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.

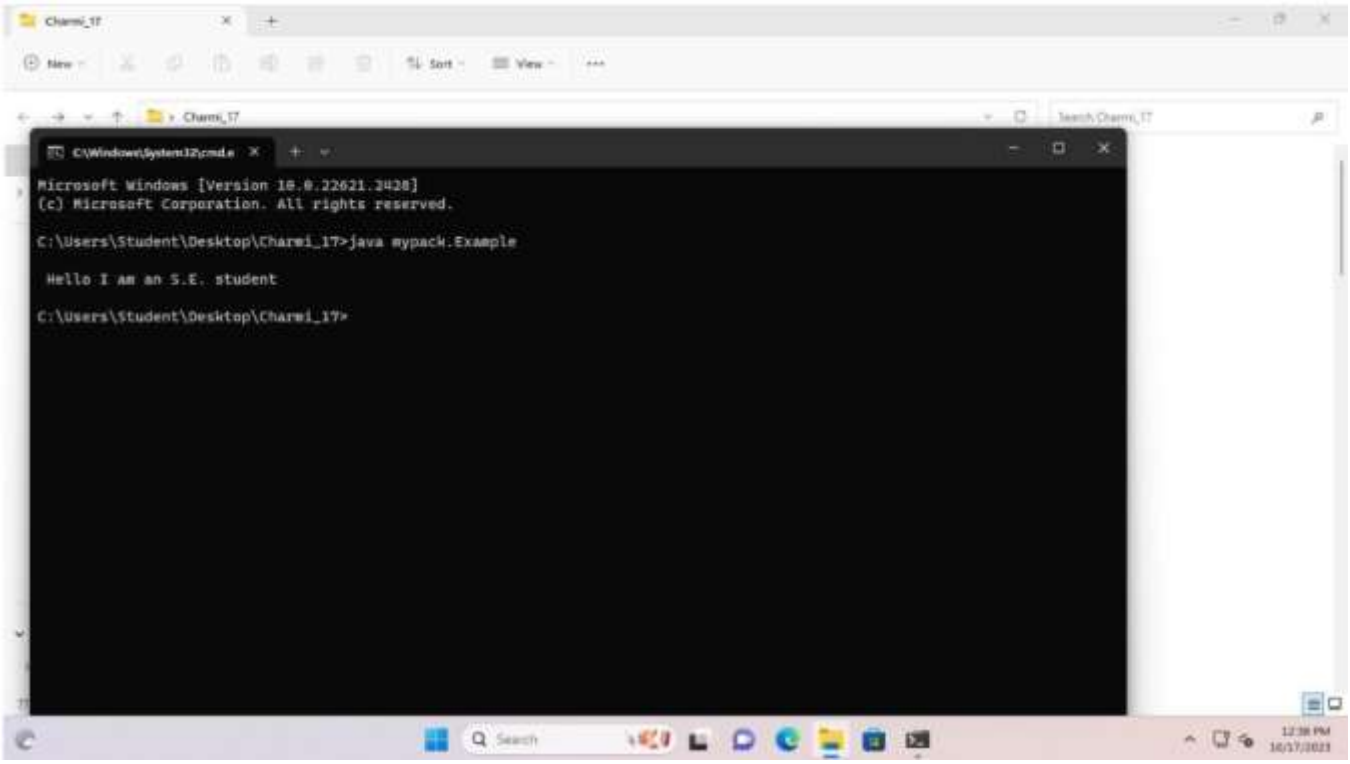
There are two types of packages-

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:

1}
```
package mypack;
  class Example
 {
   public static void main(String args[])
  {
    System.out.println("\n Hello I am an S.E. student");
  }
 }
```



Conclusion:

Autoencoders are a type of neural network used for data compression. They consist of an encoder that reduces the dimensions of the input data and a decoder that reconstructs the original data from the compressed representation. In Java, you can build an autoencoder for image compression. The results of image compression using autoencoders include smaller-sized images that maintain essential features, making them useful for storage and transmission. However, there is some loss of detail due to the compression process.

The architecture of an autoencoder typically consists of three main components: the encoder, the bottleneck layer, and the decoder. The encoder takes in the input data and compresses it into a lower-dimensional representation. The bottleneck layer is a compressed representation of the input data that is used as input to the decoder. The decoder takes in the compressed representation and reconstructs the original data.

In summary, autoencoders are a powerful tool for image compression that can produce smaller-sized images while maintaining essential features. However, there is some loss of detail due to the compression process.