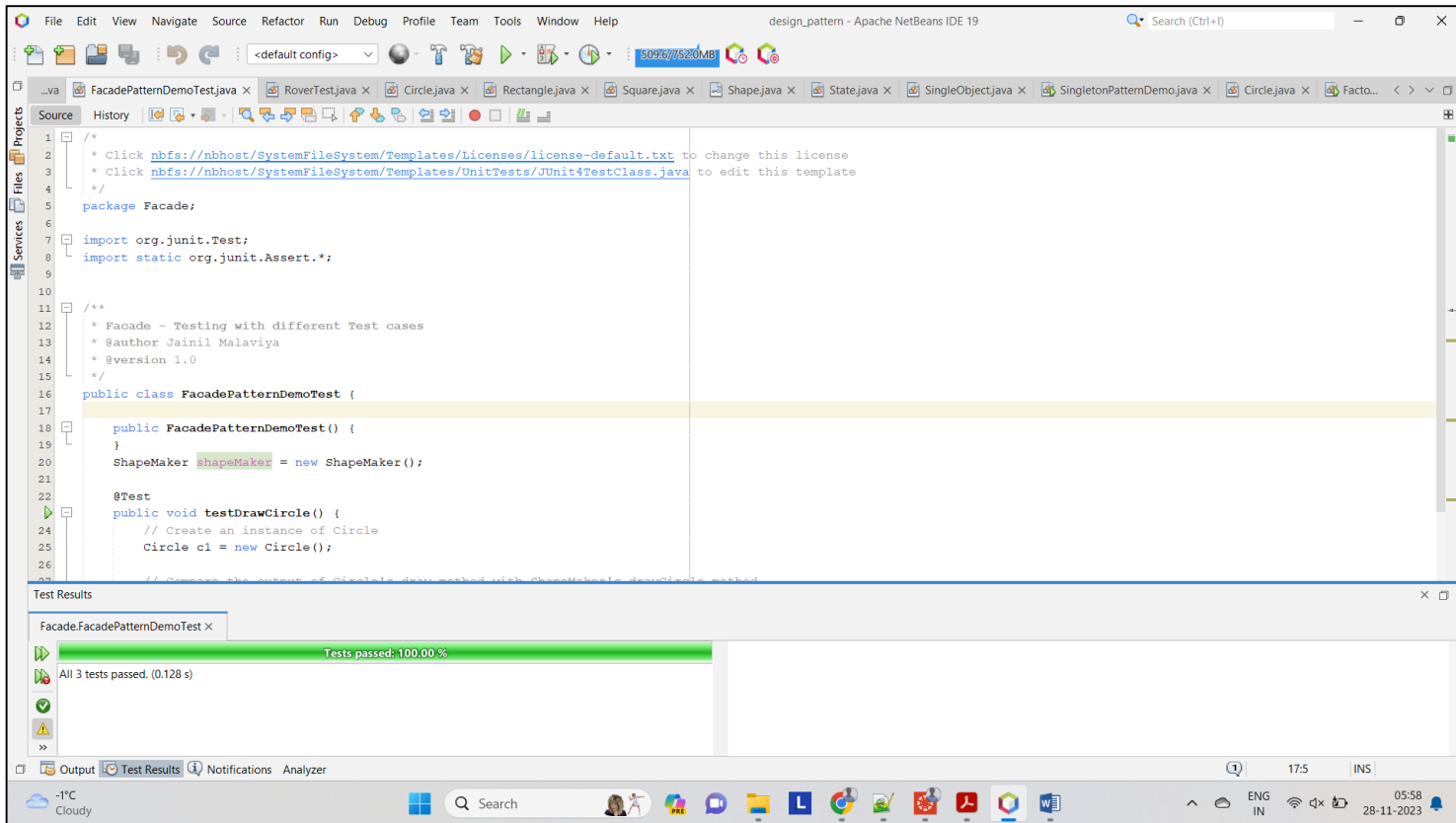


# Assignment 4 - Design Patterns

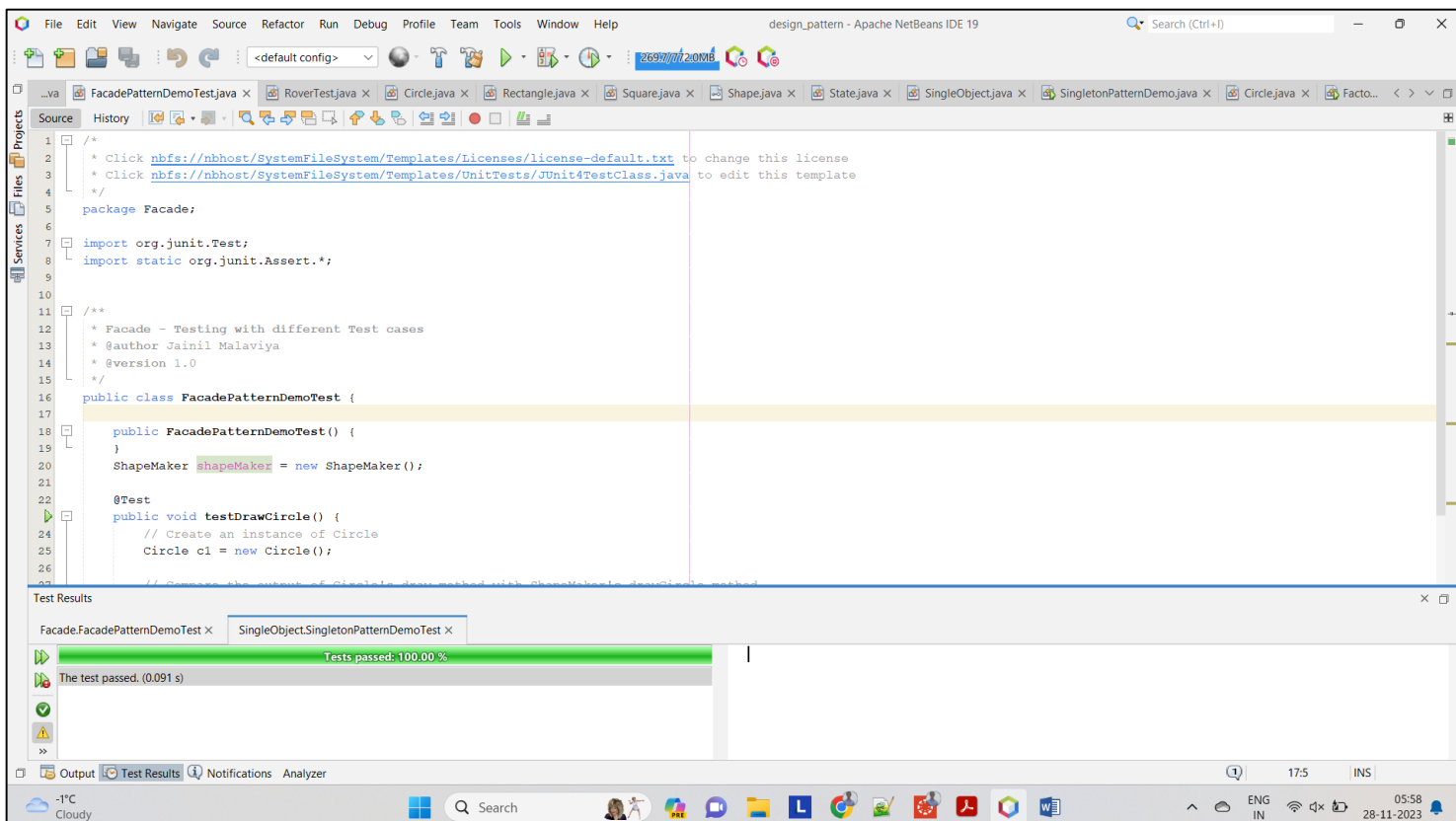
## ❖ Screenshots

### ■ Test Cases

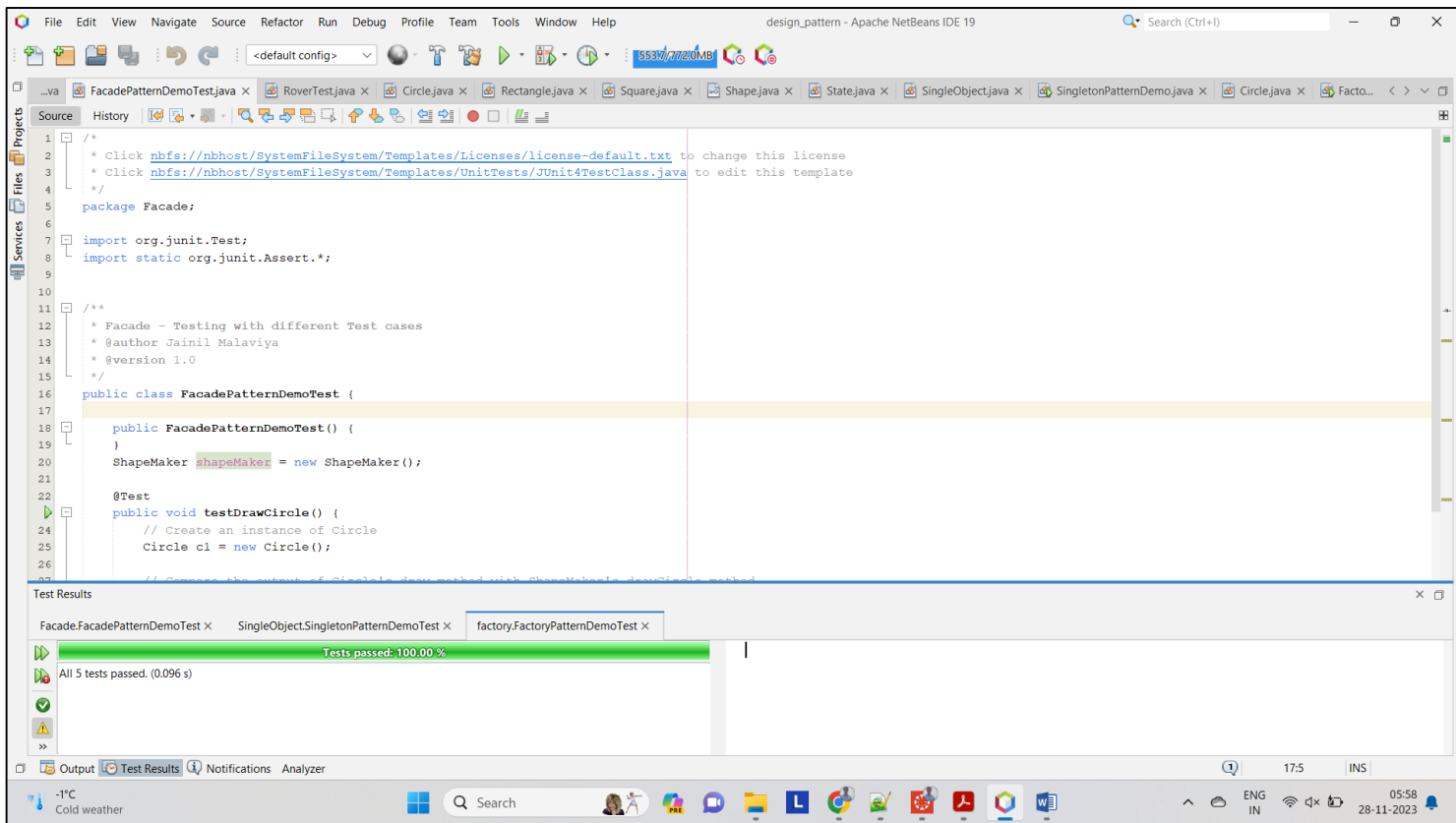
#### 1. Façade



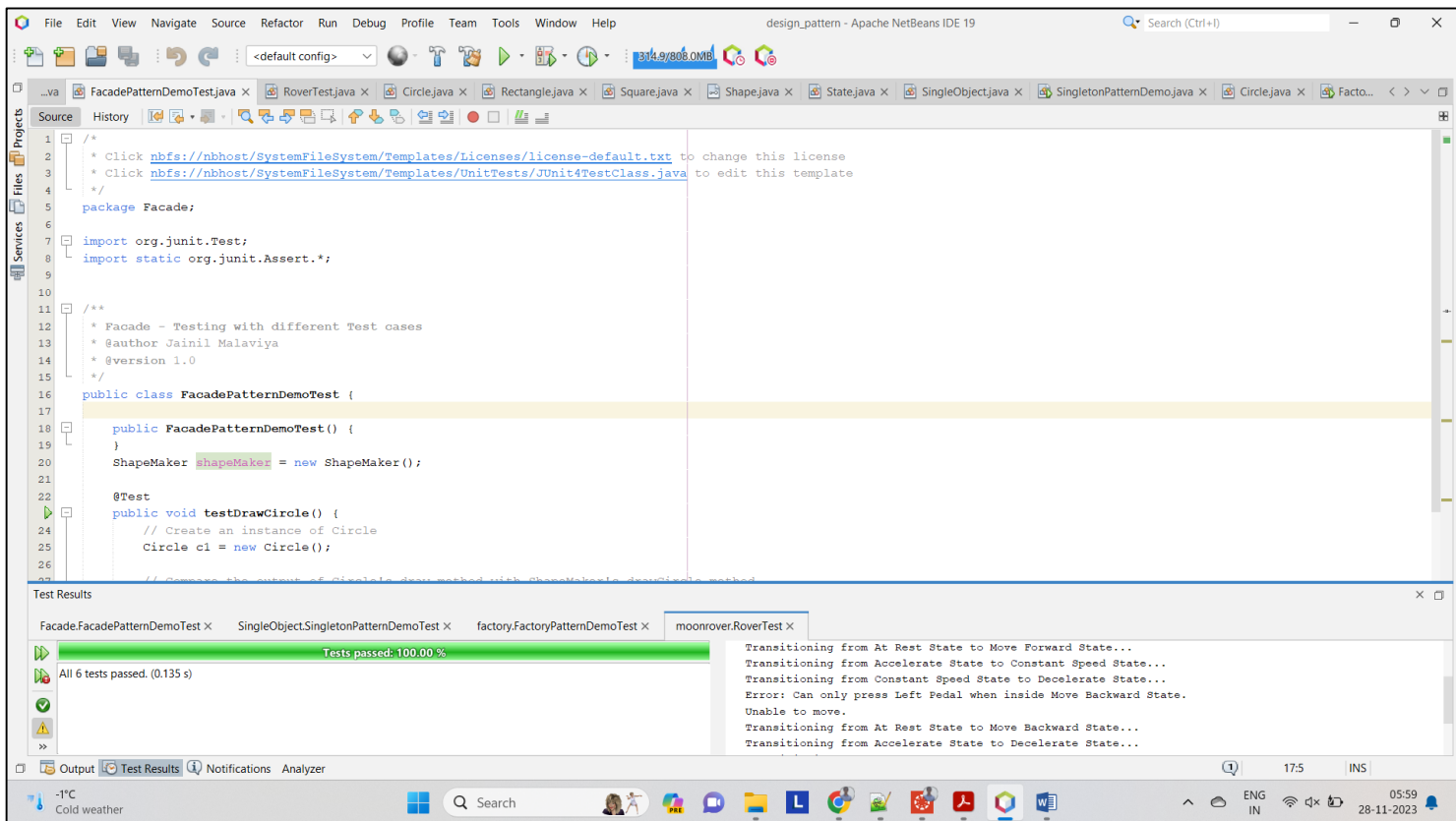
#### 2. Single object



### 3. Factory

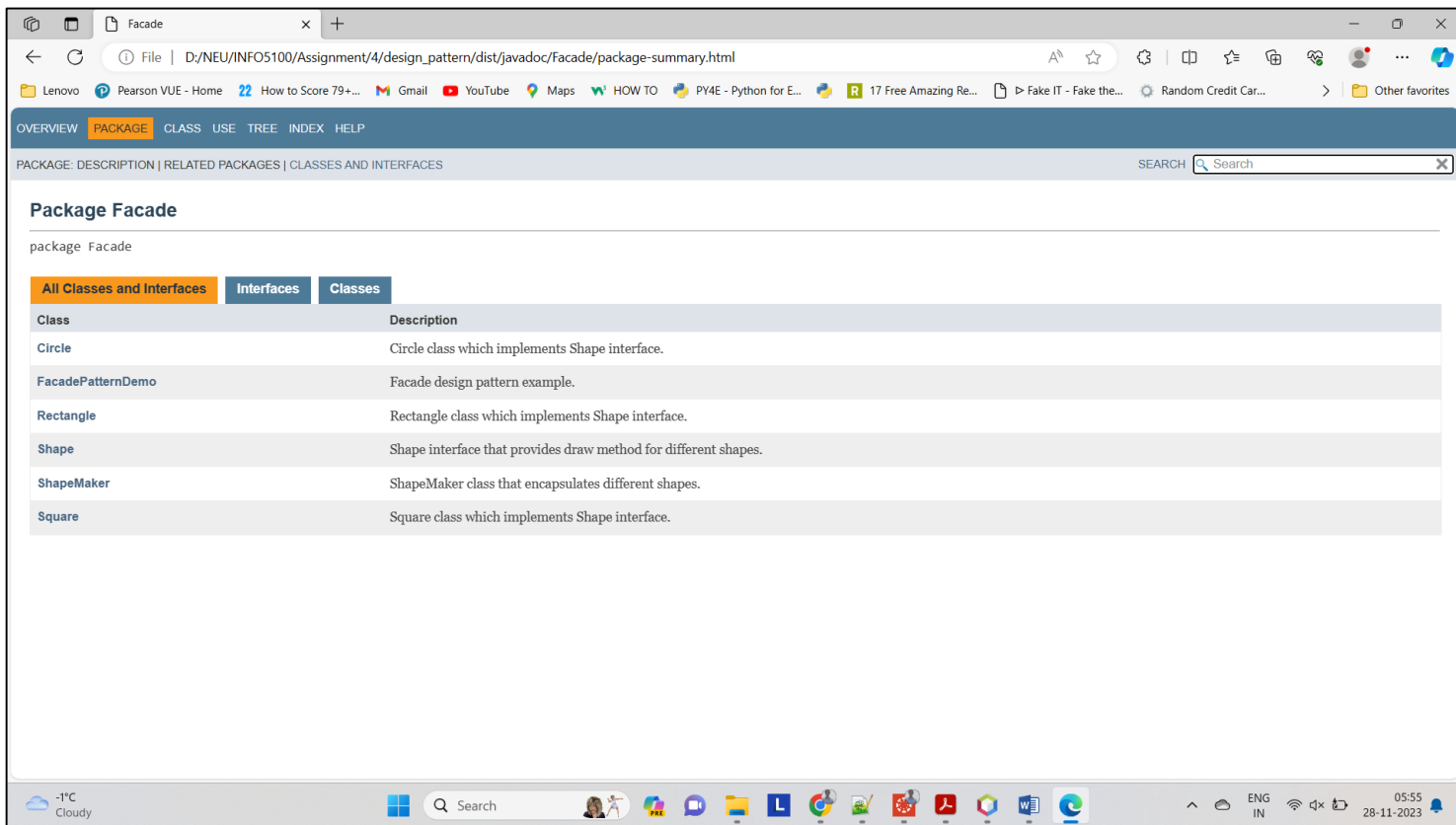


### 4. Moon Rover



# Java Doc

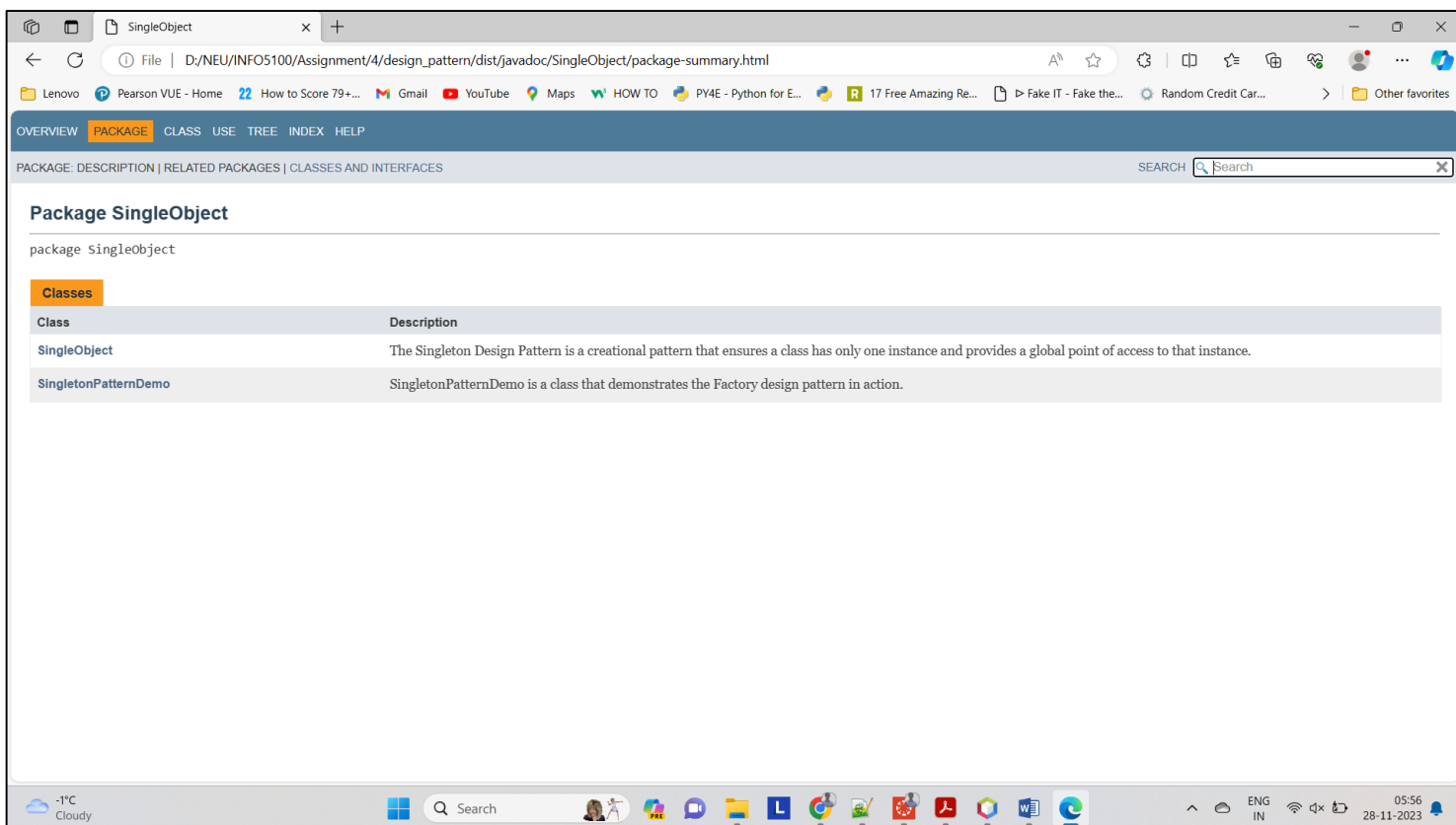
## 1. Façade



The screenshot shows the JavaDoc page for the 'Facade' package. The browser address bar indicates the file path: D:/NEU/INFO5100/Assignment/4/design\_pattern/dist/javadoc/Facade/package-summary.html. The page has a navigation bar with tabs: OVERVIEW, PACKAGE (selected), CLASS, USE, TREE, INDEX, and HELP. Below the navigation bar, there's a search bar and a link to 'PACKAGE: DESCRIPTION | RELATED PACKAGES | CLASSES AND INTERFACES'. The main content area is titled 'Package Facade' and shows the package name 'package Facade'. There are three tabs: 'All Classes and Interfaces' (selected), 'Interfaces', and 'Classes'. A table lists the classes and interfaces in the package:

Class	Description
Circle	Circle class which implements Shape interface.
FacadePatternDemo	Facade design pattern example.
Rectangle	Rectangle class which implements Shape interface.
Shape	Shape interface that provides draw method for different shapes.
ShapeMaker	ShapeMaker class that encapsulates different shapes.
Square	Square class which implements Shape interface.

## 2. Single object



The screenshot shows the JavaDoc page for the 'SingleObject' package. The browser address bar indicates the file path: D:/NEU/INFO5100/Assignment/4/design\_pattern/dist/javadoc/SingleObject/package-summary.html. The page has a navigation bar with tabs: OVERVIEW, PACKAGE (selected), CLASS, USE, TREE, INDEX, and HELP. Below the navigation bar, there's a search bar and a link to 'PACKAGE: DESCRIPTION | RELATED PACKAGES | CLASSES AND INTERFACES'. The main content area is titled 'Package SingleObject' and shows the package name 'package SingleObject'. There is one tab: 'Classes'. A table lists the classes in the package:

Class	Description
SingleObject	The Singleton Design Pattern is a creational pattern that ensures a class has only one instance and provides a global point of access to that instance.
SingletonPatternDemo	SingletonPatternDemo is a class that demonstrates the Factory design pattern in action.

### 3. Factory

factory

D:\NEU\INFO5100\Assignment\4\design\_pattern\dist\javadoc\factory\package-summary.html

SEARCH Search

OVERVIEW PACKAGE CLASS USE TREE INDEX HELP

PACKAGE: DESCRIPTION | RELATED PACKAGES | CLASSES AND INTERFACES

Package factory

package factory

All Classes and Interfaces Interfaces Classes

Class	Description
Circle	Circle class which implements Shape interface.
FactoryPatternDemo	ShapeFactoryDemo is a class that demonstrates the Factory design pattern in action.
Rectangle	Rectangle class which implements Shape interface.
Shape	Shape interface that provides draw method for different shapes.
ShapeFactory	FactoryPattern is a class that demonstrates the Factory design pattern in action.
Square	Shape interface that provides draw method for different shapes.

### 4. Moon Rover

moonrover

D:\NEU\INFO5100\Assignment\4\design\_pattern\dist\javadoc\moonrover\package-summary.html

SEARCH Search

OVERVIEW PACKAGE CLASS USE TREE INDEX HELP

PACKAGE: DESCRIPTION | RELATED PACKAGES | CLASSES AND INTERFACES

Package moonrover

package moonrover

Classes

Class	Description
AtRest	Represents the At Rest state of the Rover
MoveBackward	Represents the Move Backward state of the Rover.
MoveForward	Represents to move forward Rest state of the Rover.
Rover	Rover class - represents a rover.
State	State class - the description of this class