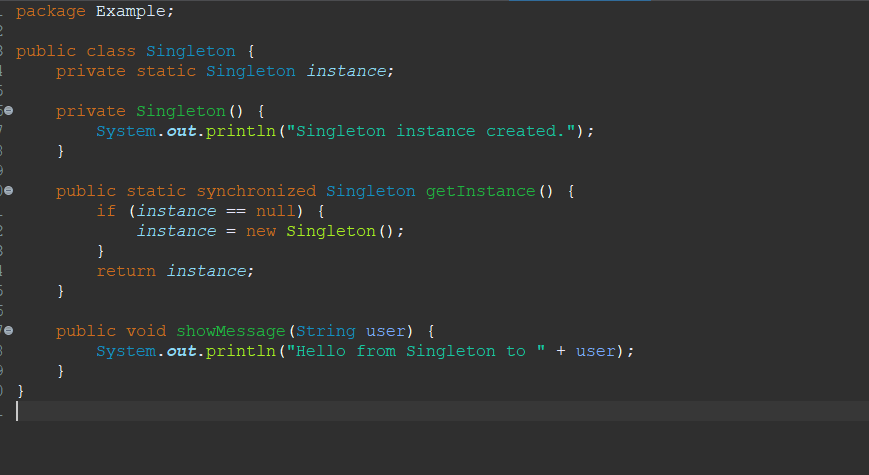
Weekly Hands-On Exercise 1

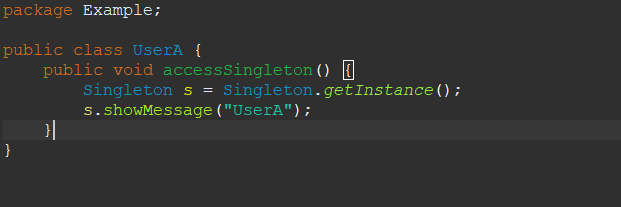
Design Patterns –

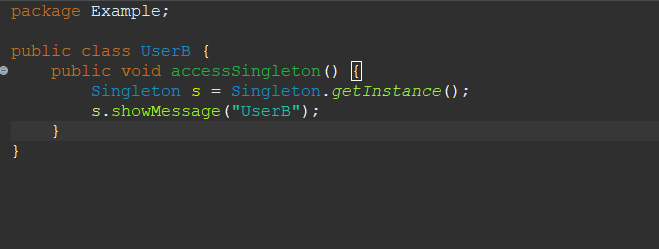
1. Implementing Singleton Pattern

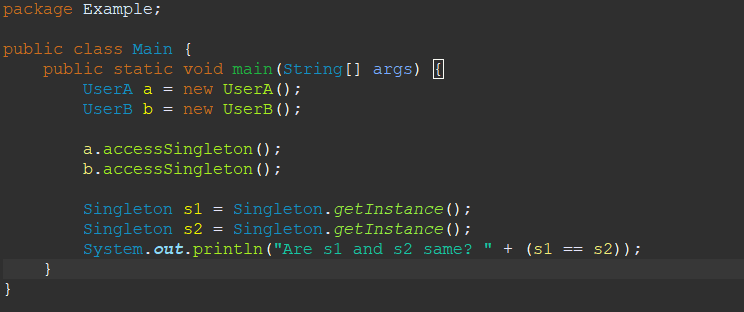
* Singleton.java



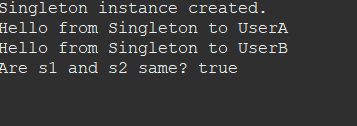
* UserA.java



* UserB.java
* Main.java

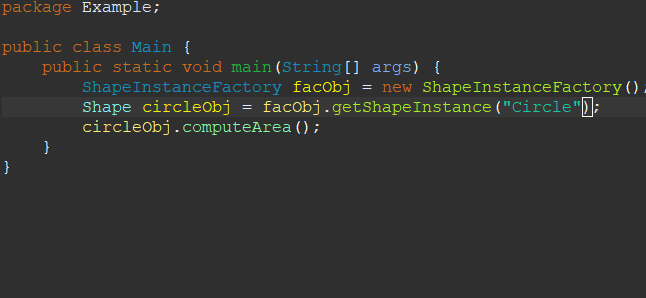


Output-

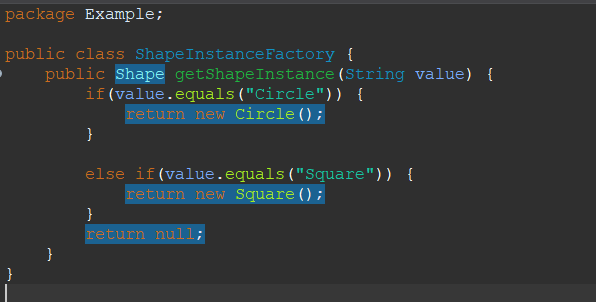


1. Implementing Factory Method Pattern

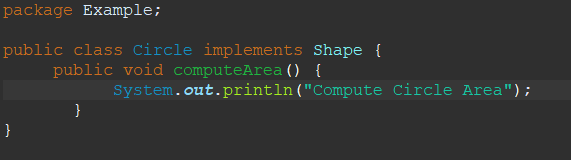
* Main.java



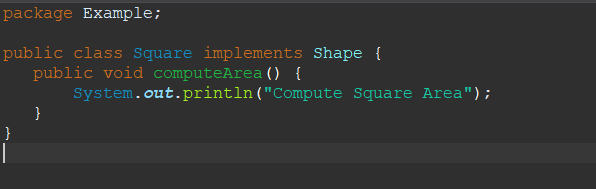
* ShapeInstanceFactory



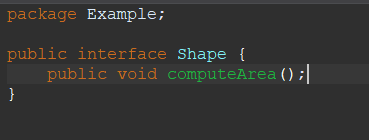
* Circle



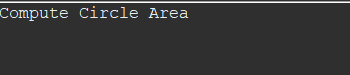
* Square.java

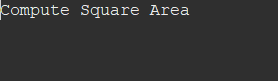


* Shape.java



Output –

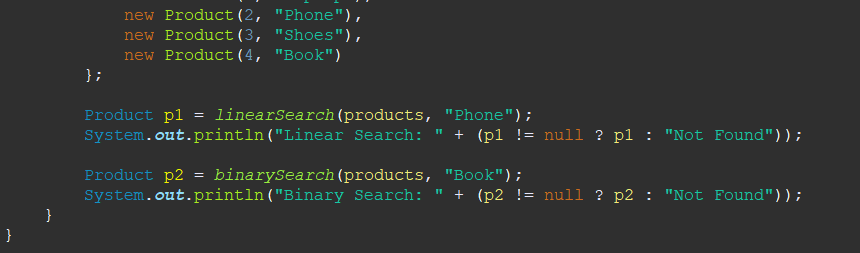




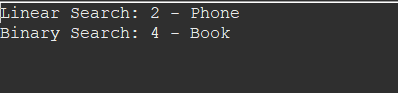
Data Structures and Algorithms –

1. E-commerce Platform Search Function

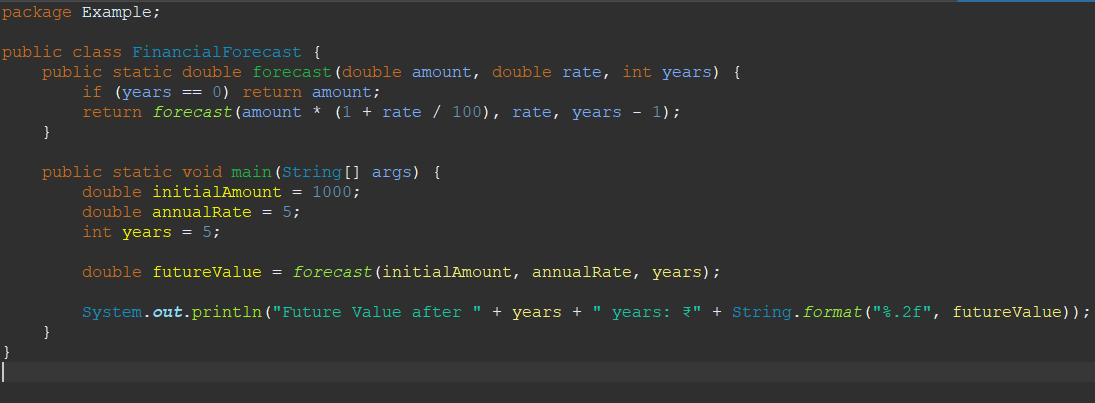




Output –



1. Financial Forecasting –



Output –

Screenshot 2025-06-20 192654.png