

## Overview

In this practice, you will take an existing application and refactor the code to implement the Singleton design pattern.

## Summary

You are working on server software that synchronizes with other servers. Your task is to create a Singleton class which stores the hostnames of the servers to connect with. The server list is declared in a static initialization block.

## Tasks

1. Open the Singleton04-03Prac project.
  - a. Select File > Open Project.
  - b. Browse to \home\oracle\labs\04-Polymorphism\practices\practice3.
  - c. Select Singleton04-03Prac and click Open Project.
2. Expand the project directories.
3. Modify the PeerSingleton class to implement the Singleton design pattern.
  - a. Open the PeerSingleton.java file (under the com.example package).
  - b. Change the constructor's access level to private.
  - c. Add a new field named instance. The field should be:
    - i. private
    - ii. Marked static
    - iii. Marked final
    - iv. Type of PeerSingleton
    - v. Initialized to a new PeerSingleton instance
  - d. Create a static method named getInstance that returns the value stored in the instance field.
4. Modify the Main class to use the singleton.
  - a. Open the Main.java file (under the com.example package).
  - b. Perform the following steps in the main method:
    - 1) Create a PeerSingleton reference named peerList01 and initialize it using the getInstance method.
    - 2) Create a second PeerSingleton reference named peerList02 and initialize it using the getInstance method.
    - 3) Display the host names by invoking getHostNames on peerList01 in a for loop.
    - 4) Next, display the host names by invoking getHostNames on peerList02 in a for loop.
5. Run the project. You should see a list of host names.