BuyProperty

Project Objective:

A. To understand how JavaRMI works.
B. To demonstrate how in JavaRMIs, referential integrity is preserved.

Project Description:

The projects demonstrates a property purchase scenario where:
A. Buyers request to purchase properties to property dealers and request approval is done by bank.
B. Properties may or may not be available for sale.
C. If it a valid purchase, based on the finances available with the buyer, he is informed if he can buy the properties or not.
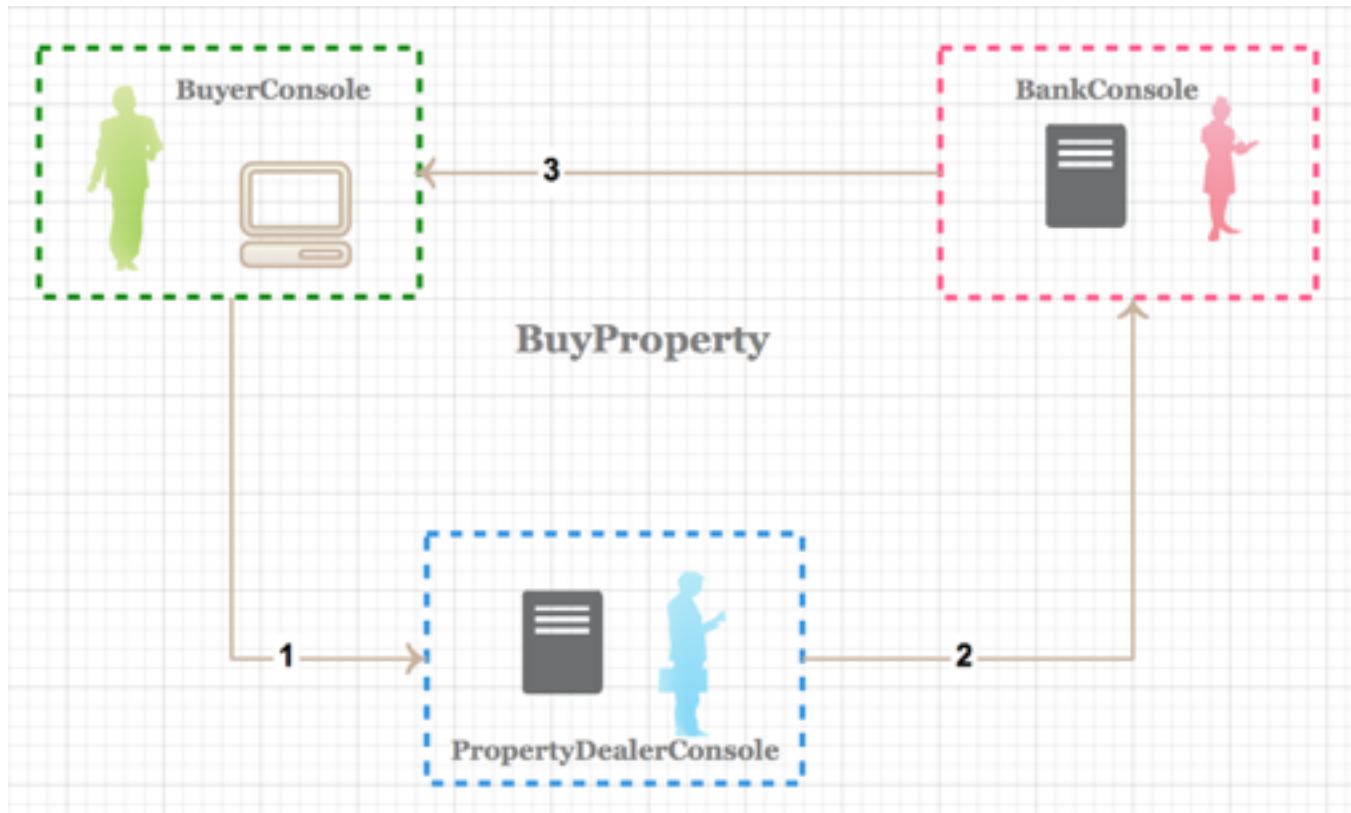
Dependencies:

A. JavaSE 1.8
B. JUnit4
C. Eclipse IDE

Assumptions:

A. No two buyers purchase the same property.
B. One buyer may request multiple property purchases.
C. All requests go to one bank.
D. Bank offers loan if the shortage money is less than 25% of finances.

System Flow:

A. Buyers and Properties are mapped in a list at the PurchasePoint (BuyerConsole).

B. Their request is first handled at PropertyDealerConsole which checks if the purchase is valid. A valid purchase is one if the property is currently available for sale.
C. The PropertyDealerConsole creates a new list of buyers and properties and creates a evaluationList calling the BankConsole.
D. Next the bank validates whether the buyer has enough purchasing capability. The finances of a buyer and the total purchases he makes are compared.
E. If buyer's finances are greater than the sum of property values,he can buy.
F. If he is eligible for loan, he may still buy the property.
G. Else he wont be able to make his purchases.

Execution Steps:

A. Open Terminal
B. RMI Registry must be started through terminal. In this project we are using port number 1991.
   Hence, command to start RMI Registry:
   rmiregistry 1991
C. To execute project (using Eclipse):
   A. Import the project in eclipse.
   B. Run the classes in the following order:
      A. BankImpl.java (package src.com.server)
      B. PropertyDealerImpl.java (package src.com.serverclient)
      C. PurchasePoint.java (package src.com.client)

D. To execute JUnit Tests
  A. To test individual files:
    A. PurchasePointTest.java
    B. PropertyDealerImplTest.java
  B. To run Test Suit
    A. AllTests.java