

Assignment 3

Student Name:

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Reading Assignment: How to Program Java, 10th edition

- Chapter 7 – Arrays and ArrayList
- Chapter 8 – Classes and Objects: A Deeper Look
- Chapter 9 – Object-Oriented Programming: Inheritance

True or False:

1. The first element in every array has index zero and is sometimes called the zeroth element.
2. In handling exceptions, the **catch** block contains the code that may **throw** an exception, and the **try** block contains the code that handles the exception if one occurs.
3. By convention, the parameter named **args** can be employed to handle command-line arguments. This parameter is of type **String**.
4. Static class variables and methods exist, and can be used even if no objects of that class have been instantiated.
5. When using datagram sockets, packets are guaranteed to arrive in the order they are sent?

Short Questions:

1. What needs to be specified when creating an **array** object?
2. Explain the *enhanced for* statement.
3. What does a type followed by an *ellipsis* (...) indicate in a method's parameter list?
4. Explain why a **static** method cannot access non-static class members.
5. What is the protocol used to establish stream sockets in Java?

Programming Challenges: In Assignment 2, you wrote an application that displays system parameters. For this assignment, you must implement a server-client infrastructure where the properties of one computer can be displayed on the other.

1. Implemented the server and the client in Java.
2. Using IntelliJ IDEA, Git, and GitHub, commit your code for the server as a project labeled **Assignment3server** under **Students/<GitHubID>/**, where **<GitHubID>** should be replaced by your username on GitHub.
3. In a similar fashion, commit your code for the client as a project labeled **Assignment3client** under **Students/<GitHubID>/**.