

# Advanced Java

## Course Introduction



```
/** public void run() {
 * Create the GUI and show it. For thread safety,
 * this method should be invoked from the
 * event-dispatching thread.
 */
private static void createAndShowGUI() {
    //Make sure we have a window decorations.
    JFrame frame = new JFrame("FocusConceptsDemo");
    boolean hasRequestedQuit = false;
    String line = null;
    List result = new ArrayList();
    try {
        while (!hasRequestedQuit) {
            line = stdin.readLine();
            //note that "result" is passed as an "out" parameter
            hasRequestedQuit = fInterpreter.parseInput( line, result );
            display( result );
            result.clear();
        }
        //Display the window.
        frame.pack();
        frame.setVisible(true);
    } catch ( IOException ex ) {
        System.err.println(ex);
    }
    finally {
        display(fBYE);
        shutdown(stdin);
    }
}

//Schedule a job for the event-dispatching thread:
//creating and showing this application's GUI
javax.swing.SwingUtilities.invokeLater(new Runnable() {
    public void run() {
        /// PRIVATE ///
        createAndShowGUI();
    }
});

private static final String fBYE = "BYE";
private Interpreter fInterpreter;

/**
 * Display some text to stdout
 */
final String[] myStrings = new String[2];
}
```

# Your Instructor – Rod Davison

## 50 years experience

Academia (math, linguistics, cognitive science)

Artificial Intelligence R and D

Software Development

Data Analytics – Social Research

Project Manager

Quality and Testing

Business Analysis

Consulting and Training



# About the Course

- Introduction to Java Course for IBM developers
  - First of three courses – Intermediate and Advanced are next week
  - Covers the basics of Java and OO programming
  - Overview of some related technologies used with Java – eg. Spring
  - Content is based on current Java release (Java 20)
- Features from older version are covered as well
  - Differences between current and legacy Java will be discussed
  - Why? Because much of the Java code you might be tasked with supporting or enhancing may have gone into production decades ago
  - You may find yourself supporting code older that you are
- This is a *survey* course
  - Time precludes deep-dives into the various topics
  - The class repo will have reference materials and reading/video lists
- It is assumed that everyone in the class is a programmer
  - Prior experience with Java is not required
  - *But* a working knowledge of general programming and development tools is assumed

# Class Hours

- Review of class hours and breaks
  - Monday to Friday: 9am to 5pm EDT
  - Lunch is fixed at 12-1 EDT to ensure you have a known time to plan calls, meetings, etc
  - Two 15 min breaks mid-morning-ish and mid-afternoon-ish
- Your attendance is being recorded
  - If you are not able to be at class, let the instructor know
  - And let your training coordinator at IBM know as well so you won't be considered AWOL
  - Your attendance is recorded when you log into your LearnQuest student portal

# Class Materials

- All of the class materials except for the labs are available at:
  - <https://github.com/ExgnosisClasses/IBM-Java-3-Aug-24>
  - This repo will be available until Sept 25, 2023

# Class Protocols

- Learn by doing
  - There will be a strong emphasis on demo and labs
  - How much material we cover is not as important as the amount of material you actually learn
  - Hypothetical problem scenarios will be posed during class for discussion
  - There will be no reading from slides – they are only a guide
  - Instead, we will be referring to current online documentation
- Be interactive
  - I will be soliciting your insights, feedback and questions so you have to be present and ready to contribute
  - I like to adapt the course to the needs of students but that requires feedback from you

# Lab Environments

- Your LearnQuest Portal contains a link to a VM
  - All the software you need is installed for the class
  - The instructor will use an identical setup to teach from
- If you want to use your own computer, you can
  - The labs assume that you are using Java 20
  - However, time does not allow us to troubleshoot setup issues on your own private computer during class
  - Reach out to your own Tech Support team for help
- The Eclipse IDE is provided in the VM
  - You can customize your VM with another IDE
  - But we cannot troubleshoot any customization issues in class

# Introductions

- Please introduce yourself
  - Name you prefer to be known by in class
  - Your area of expertise or specialization (developer, tester, etc.)
  - Programming experience and experience developing in Java and other languages
  - Specific goals or expectations for what you hope to learn



# Walk-through

Exploring the class repository







Java™