

# COP 3331

## Module 1 Synopsis

### Readings:

1. Read Chapter 9 of your textbook
2. Watch the lecture video *Chapter 9 Lecture*
3. Watch the exercise videos 1-3

### Assignments:

1. Take the Module 1 Quiz, I recommend you do this AFTER you complete the programming assignment!
2. Submit via the module 1 Assignment link your source code solution , **this will be 4 .java files in a single zip archive** to the following:

#### Program description:

Starting with the provided Java source code, you are going to make modifications that move the 3 features into their own class files.

In addition, for feature 2 and 3, you will move the code that prompts the user into the new class files as well. In doing this, all that will remain in the if/else will be the object creation and then the call to the methods you are going to create in the new classes.

Feature 1: Move the method code to a new class called feature1. In this new class you will have a method called run, which is what will be called from the if/else where the method was previously called from. **The Lecture has this process in complete detail, just follow along and replicate as shown.**

Feature 2: Move the method code to a new class called feature2. In this new class you will have a method called run, which is what will be called from the if/else where the method was previously called from. The run method will receive the double[][] as input and return of void. In addition, move the code that prompts the user for values as well, this will be a second method in the feature2 class, define it as getInput. As input you will need to pass the

reference to the scanner object ( only scanner created will be in the main program ) and a return value, it will be the user input array[][].

As with feature1, the if/else will create the feature2 object and then call its getInput and the run methods

Feature 3: Move the method code to a new class called feature3. Follow the same steps as feature2, the only difference is that the getInput in addition to scanner needs a String ( part of the message prompting the user) in addition to the scanner reference and return would be int[][].

Tip:

You should do this in steps, start with the easiest, which is feature 1 change, when that is completed successfully, then do feature 2 and feature 3. Your textbook as has many examples that will show you exactly the required syntax needed to complete this assignment as well as all the required changes for feature 1 is step by step covered in the module 1 Video Lecture.

Welcome to Henry's 3 in 1 Programming Assignment (Objects for all features) for Module 1

Enter 1 Random 2D Chars  
Enter 2 Sum Columns  
Enter 3 Identical Arrays  
Any other input will exit1

You Selected Random Array!

MPUUQSGRJATAFMNHPFVO  
YFNDYHIRNEZSZMZYWFTM  
TGGZYMNFYNCSGFNVBOW  
YOTLEJQMJJXWUGVLIOOK  
WKGCIYLVSWIFCKEYJKH  
HAIXUGHKPDZRFMDLDIZ  
HZYEDVARLSSLTPQFWQTX  
JQVRHIDFEUSYJOWUXSR  
HQCIDFJILUQBGEEDBGXV  
PLZLCGILEVCTOEKTZEDC

Enter 1 Random 2D Chars  
Enter 2 Sum Columns  
Enter 3 Identical Arrays  
Any other input will exit2

You Selected Sum Columns

Enter 3 rows and 4 columns:

1 2 3 4  
5 6 7 8  
9.1 10.2 11.3 12.9

You Entered:

1.0 2.0 3.0 4.0  
5.0 6.0 7.0 8.0  
9.1 10.2 11.3 12.9

The sums are:

15.1  
18.2  
21.3  
24.9

Enter 1 Random 2D Chars  
Enter 2 Sum Columns  
Enter 3 Identical Arrays  
Any other input will exit3

You Selected Identical Arrays

Enter m1 (a 3 by 3 matrix) row by row: 1 2 3 4 5 6 7 8 9  
Enter m2 (a 3 by 3 matrix) row by row: 1 2 3 4 5 6 7 8 9

Two lists are identical

Enter 1 Random 2D Chars  
Enter 2 Sum Columns  
Enter 3 Identical Arrays  
Any other input will exit3

You Selected Identical Arrays

Enter m1 (a 3 by 3 matrix) row by row: 1 2 3 4 5 6 7 8 9  
Enter m2 (a 3 by 3 matrix) row by row: 1 2 2 4 5 6 7 8 9

Two lists are not identical

Enter 1 Random 2D Chars  
Enter 2 Sum Columns  
Enter 3 Identical Arrays  
Any other input will exit0  
User didn't select 1,2 or 3. Exiting Program