

COP-2210 – Lab 4

Objective

Students will be able to develop Java programs involving decision statements, implementing exercises that require the use of IF statements, comparison operators and logical operators.

Guidelines

- The assignment is to be completed in pairs.
- Questions are based on content discussed in the Lecture and book readings.
- NetBeans is the IDE of choice.
- Students are expected to attend each lab session and actively participate in the lab activities.
- Lab should be completed and submitted by the end of the lab time. Extra time would be considered on a case by case analysis and last day to submit would be Friday.
- To submit, upload your lab solutions to the dropbox in Canvas.
- Make sure you include the information of the developers as a comment in the first lines of each program of the lab:

Student Name: _____

Student Name: _____

Panther ID: _____

Panther ID: _____

Week: _____

Section: _____

Lab Questions

The lab involves completing a number of questions from the Chapter 5 of our textbook.

- 1) **E5.1** Write a program that reads an integer and prints whether it is negative, zero, or positive.
- 2) Write a Java program that determines if a person's age is less than 20, in the [20, 30] range, or greater than 30.
- 3) **E5.4** Write a program that reads three numbers and prints "all the same" if they are all the same, "all different" if they are all different, and "neither" otherwise.
- 4) **E5.9** A compass needle points a given number of degrees away from North, measured clockwise. Write a program that reads the angle and prints out the nearest compass direction; one of N, NE, E, SE, S, SW, W, NW. In the case of a tie, prefer the nearest principal direction (N, E, S, or W).

Grading Rubric

Lab grade is 10 points (out of 1000 total course points). Question weights are as follows:

Question	Points
1	2 pts
2	2 pts
3	3 pts
4	3 pts

Answers will be graded based on correctness, completion, and organization.