Learning Objectives

1. **Explain** how conditional statements (e.g. if-end, if-else-end, if-elseif-else-end) are used to make decisions.

Textbook Reading

Chapter 6.2

Topics

This lecture contains the following topics:
1. Conditional Statements - General
2. If-End Statements
3. If-Else-End Statements
4. If-Elseif-Else-End Statements

Outline

Below is an outline of the topics and the order in which they should be covered:

1. **Conditional Statements - general**
   a. Conditional statements allow MATLAB to make decisions based on whether a certain condition is met.
      i. If it is met: a specified set of actions is taken.
      ii. If it is not met: a different set of actions is taken.
         1. EX: If I win the lottery I will quit my job. If I do not win the lottery I will keep attending work.

2. **If-End Statements (Instructor's In-class Activity)**
   a. Each 'if' must have a corresponding 'end'
   b. The conditional expressions can contain relational/logical operators
   c. The code is executed if the condition is true.

3. **If-Else-End Statements (Instructor's In-class Activity)**
   a. If the condition evaluates to true, the associated code is executed and the rest of the code prior to the 'end' statement is skipped.
   b. Otherwise, if the condition is not met, the code associated with the 'else' statement is executed and the code associated with the condition is skipped.
   c. 'Else' is optional and it doesn't require a conditional statement.
4. **If-Elseif-Else-End Statements (Instructor’s In-class Activity)**
   a. These statements allow you to check multiple conditions.
   b. The first condition is checked; if it is true, then the associated code is executed. If not, the second condition is checked. This will continue until either a condition is met or we reach the ‘end’ of the conditional statement.

5. **Students will complete Part 1 of the assignment to turn in by the end of class.**
   Once finished, students may start on Part 2 due by the next class. Students will submit Part 1 of the assignment to the Carmen dropbox as a PDF.