ITERATION

• Sometimes, it's nice to repeat things in programming

• Some Examples:
  • Validating Input from the User
  • Reading From Files
  • Repetitive Printing
FIRST, A REFRESHER

• Variables and Values
• Boolean Expressions
• If Statements (If..Elif..Else)
• Relational and Boolean Operators
EXAMPLE 1

• Print 1-5
• What if 1-1000?
THE WHILE STATEMENT

• As long as a condition is true (read: while a condition is true), execute the following statements.
• Condition is (usually) a Boolean expression
EXAMPLE 1 - REVISITED
DEFINITIVE VS INDEFINITE

• Definite
  • Programmer knows how many times a loop is going to run

• Indefinite
  • Well, the opposite
ERROR HANDLING

• Exceptions
  • ValueError
  • ZeroError

• Handling these
  • Try, Except
THE TRY...EXCEPT STATEMENT

try:

<statement(s)>

except ExceptionName:

<statement(s)>
REVISIT AN OLD EXAMPLE – NUM_CHECK.PY
EXAMPLE 2 – DICE GUESSING GAME
SIDE NOTE: TRUTHY AND FALSEY

- 0, 0.0, and "" equates to False
- Non-Zero is True
THE FOR STATEMENT

• Same principle as while statement
• Used for definitive loops, a sequence of numbers

for variable in items:

<statement(s)>

Item is a tuple of things (Kind of like a list)

• range()
CONTROLLING A LOOP

• break
• continue
CREATE A MULTIPLICATION TABLE
AVERAGE PROGRAM