## ITEC 1620 Object-Based Programming

Lecture 3
Iconic Programming II

#### Review

- Sequence
  - An action that is performed <u>once</u>
- Branch
  - An action that is performed maybe once
- Loop
  - An action that is performed <u>maybe more</u> <u>than once</u>

# Single Actions vs. Repeatable Actions I

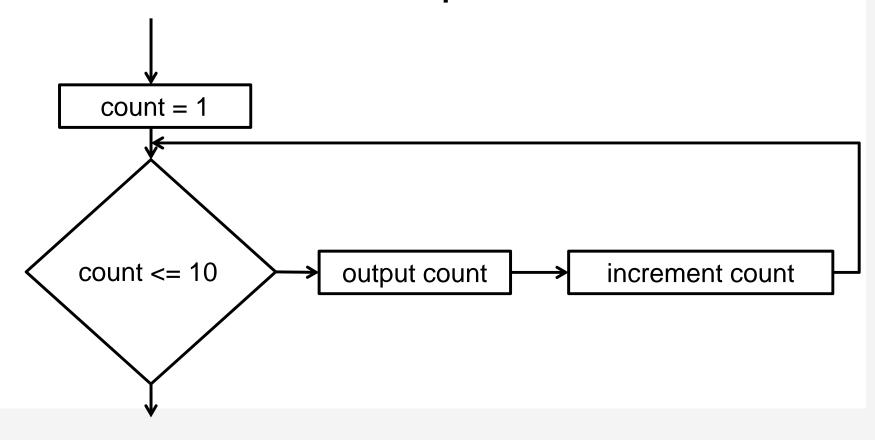
- Output the numbers from 1 to 10
  - 10 single actions
  - 2 actions in a loop

#### Single Actions vs. Repeatable Actions II

- 10 single actions
  - Output 1
  - Output 2
  - Output 3
  - \_\_\_\_
  - Output 10

#### Single Actions vs. Repeatable Actions III

Two actions in a loop



#### Single Actions vs. Repeatable Actions IV

- Not the same action
- Have to find common component (output) and their relationship (increment)
- Looping is key to programming
  - Transformation is key to looping

#### Sample Program I

 Write a program that takes one hundred inputs and outputs the largest value

#### Sample Program II

- Generate a random number between 1 and 10
- Output how many inputs it takes to guess that number

#### Sample Program III

- Generate random numbers between 1 and 10 until the same number is generated twice in a row
- Output all generated numbers

### Readings and Assignments