

# CSI 32 LECTURE NOTES (Ojakian)

## Topic 3: Conditional Statements and While Loops

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### OUTLINE

**PRIMER:** 1.4, 6.5, 6.7, 6.9

**TRANSITION GUIDE:** 5.1, 5.2, 5.3

1. if ... then statements
  2. While Loops
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### 1. Decision statements

**PROBLEM 1.** *In Python and C++, write a program that reads in an integer value (understood to be how old you are), and then prints out your generation.*

- *Baby Boomers: Baby boomers were born between 1946 and 1964. They're currently between 56-74 years old (71.6 million in U.S.)*
- *Gen X: Gen X was born between 1965 and 1980 and are currently between 40-55 years old (65.2 million people in U.S.)*
- *Gen Y: Gen Y, or Millennials, were born between 1980 and 1994. They are currently between 24-39 years old (72.1 million in the U.S.)*
- *Gen Z: Gen Z is the newest generation to be named and were born between 1996 and 2015. They are currently between 5-24 years old (nearly 68 million in U.S.)*

### 2. While Loops

**PROBLEM 2.** *In Python and C++, write a program that reads in an integer input and finds the sum of the numbers from 1 up to and including this number.*

**PROBLEM 3.** *In Python and C++, write a program that takes input till 0 is inputed, then prints the sum of all the given numbers.*

**PROBLEM 4.** *In Python and C++, write a program that takes input till 0 is inputed, then prints the sum of all the given numbers, but ignoring negative numbers.*

**PROBLEM 5.** *Write a program in C++ to take in user input of floats, till enter is inputed. Then return the mean.*