



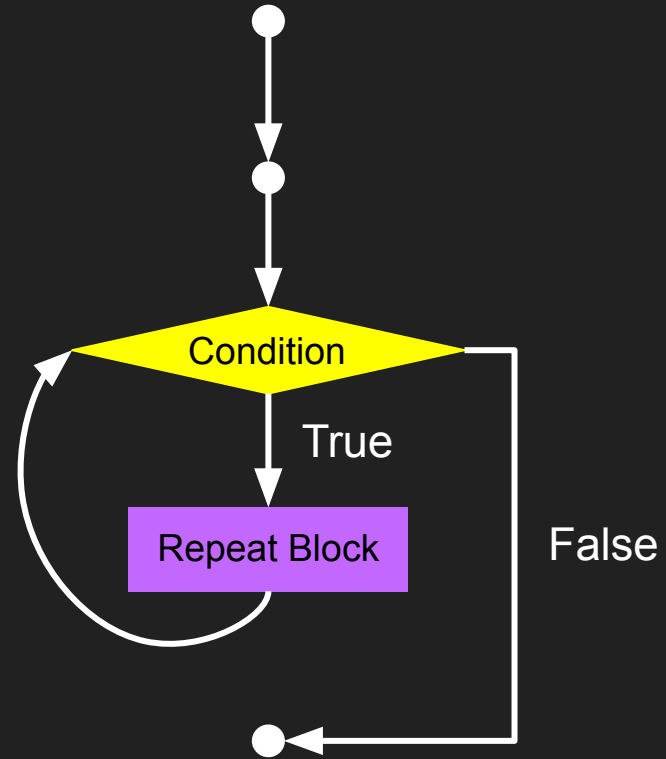
# CL03 - Practice with Conditionals, While Loops, and Boolean Expressions

# Assignments

- Only use concepts covered in class
- Late policy:
  - Email [comp110help@gmail.com](mailto:comp110help@gmail.com) for extension requests
  - Generally only LATE due date is extended
  - Look up late point insurance
  - Late points + Early bonus points calculated at end of semester!
- Ed Stem
  - For logistical + conceptual questions
  - For exercise questions, you'll likely get redirected to Office Hours

# Practice with While Loops

- “Iteration” - one pass through a while loop
- Often “i” (or “idx”) is used as the counter to track the loop



## Practice With Conditionals: What input would give these different outputs?

```
1 response: int = int(input("Pick an even number < 10: "))
2
3 if (response % 2 != 0) or (response >= 10):
4 |     print("Wrong number")
5 if (response < 10):
6 |     print("Guess was less than 10.")
7 if response % 2 == 0:
8 |     print("Guess was even.")
```

```
1 response: int = int(input("Pick an even number < 10: "))
2
3 if (response % 2 != 0) or (response >= 10):
4 |     print("Wrong number")
5 else:
6 |     if (response < 10):
7 |         print("Guess was less than 10.")
8 if response % 2 == 0:
9 |     print("Guess was even.")
```

# Practice Memory Diagram

```
1  x = 1
2  y = 2
3  z = "x"
4
5  if x > y:
6  |    print(str(x))
7  else:
8  |    if y % 2 == 0:
9  |    |    print(str(y))
10 print(z)
```

stack

A hand-drawn diagram representing a stack. It consists of three horizontal boxes stacked vertically. The top box contains 'x' and '1'. The middle box contains 'y' and '2'. The bottom box contains 'z' and '"x"'. To the left of each box is a corresponding variable name: 'x' for the top, 'y' for the middle, and 'z' for the bottom. The word 'stack' is written in yellow above the diagram.

output

A hand-drawn diagram representing the output of the program. It shows three lines of output, each enclosed in double quotes. The first line contains '1', the second line contains '2', and the third line contains 'x'. The word 'output' is written in yellow above the diagram.

# Practice Memory Diagram

```
1  """A tracing practice question"""
2
3  i: int = 0
4  s: str = ""
5
6  while i < 4:
7      |   if i % 2 == 0:
8      |       |   s = s + "h"
9      |   else:
10     |       |   if i % 3 == 0:
11     |       |       |   s = s + "!"
12     |       |   else:
13     |       |       |   s = s + "e"
14     |       |   i = i + 1
```

Stack



Output

# Practice With Loops

Writing some code...

Write a program that guesses a random number but gives clues about whether or not their guess was even or odd, too high or too low...