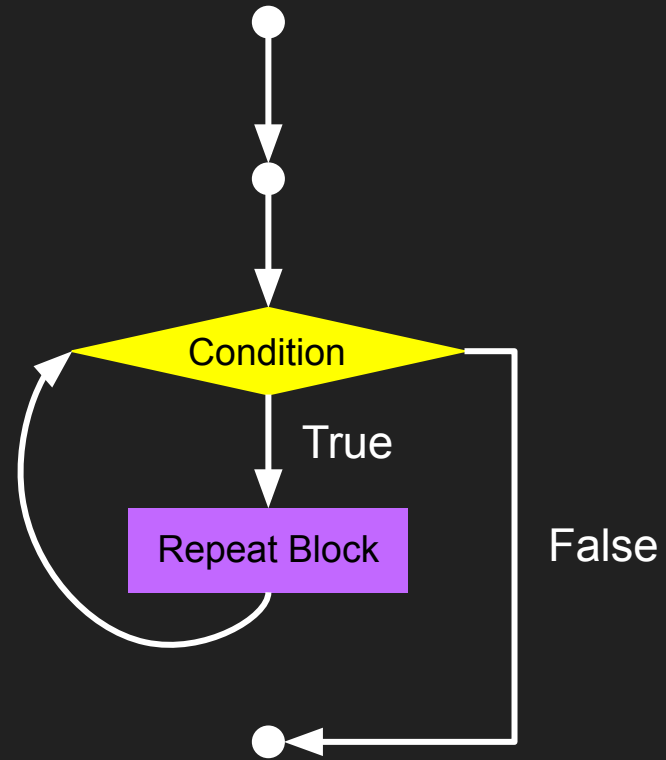COMP 110

CL04 - Practice with While Loops

# 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 Memory Diagram

```python
1    """A basic while loop."""
2
3    condition: bool = True
4    num_loops: int = 0
5    STOP: int = 2
6    while condition:
7        print(num_loops)
8        num_loops += 1
9        if num_loops >= STOP:
10           condition = False
```

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```

# 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…

Step 1. Write a program that loops until you guess the correct number

# Practice Memory Diagram

```python
1   xs: str = "123"
2   ys: str = "45"
3
4   x_idx: int = 0
5   while x_idx < len(xs):
6       y_idx: int = 0
7       while y_idx < len(ys):
8           print(f"({xs[x_idx]},{ys[y_idx]})")
9           y_idx = y_idx + 1
10      x_idx = x_idx + 1
```