



A large, semi-transparent dark red circle is positioned in the center of the slide, partially overlapping the text area.

PYTHON BOOTCAMP

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LOOPS



- **For Loop:** Known iteration
- **While Loop:** Unknown iteration

Rule of Thumb:

If you can count it use for loop,

If you are waiting for a condition use while loop

LOOPS



For Loop:

```
4  for i in range(5):          # 0, 1, 2, 3, 4
5      |   print(i)
6
7  for i in range(1, 6):        # 1, 2, 3, 4, 5
8      |   print(i)
9
10 for i in range(0, 10, 2):    # 0, 2, 4, 6, 8
11     |   print(i)
12
13 # While Loop
14 count = 0
15 while count < 5:
16     |   print(count)
17     |   count += 1
```

LOOPS



While Loop:

```
14 count = 0
15 while count < 5:
16     print(count)
17     count += 1
```

LOOPS



Loop control statement:

```
22  for i in range(10):  
23      if i == 3:  
24          continue    # Skip this iteration  
25      if i == 7:  
26          break       # Exit the loop  
27      print(i)
```

LOOPS



Nested Loop:

```
30     for i in range(2):  
31         for j in range(3):  
32             print(f"({i}, {j})")
```

LOOPS



Exercises:

1. Create a multiplication table generator.
2. Write a program that finds all prime numbers up to a given number.
(limit = 20)