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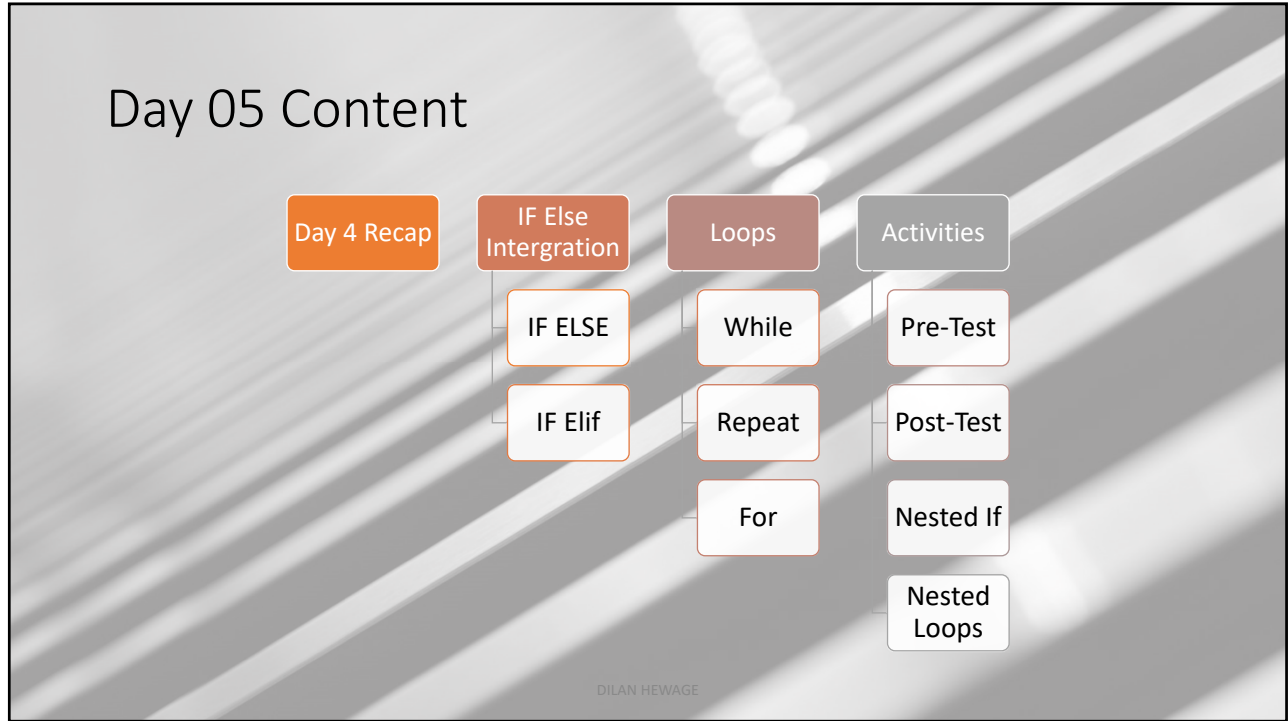
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# Algorithm Development & Python Programming

Workshop Day - 5

**DILAN HEWAGE**  
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Co-Founder of Print Arcade

2



3

# Day 4 Recap

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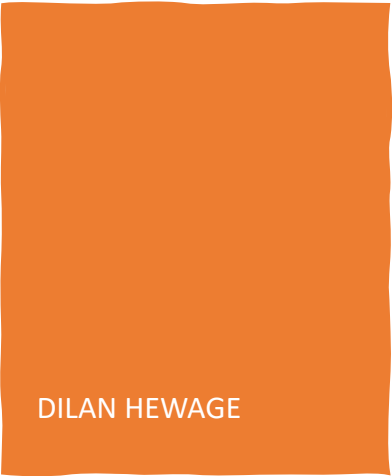
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4

# IF Else Intergration

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5

## IF Else Integration

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- Python supports the usual logical conditions from mathematics:
  - Equals:  $a == b$
  - Not Equals:  $a != b$
  - Less than:  $a < b$
  - Less than or equal to:  $a <= b$
  - Greater than:  $a > b$
  - Greater than or equal to:  $a >= b$
- These conditions can be used in several ways, most commonly in "if statements" and loops.
- An "if statement" is written by using the 'if' keyword.

6

## IF Else Integration

### Code

```
amount = int(input("Enter amount: "))

if amount < 1000:
    discount = amount * 0.05
    print("Discount", discount)
else:
    discount = amount * 0.10
    print("Discount", discount)

print("Net payable:", amount - discount)
```

### Output

```
Enter amount: 5000
Discount 500.0
Net payable: 4500.0
```

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7

## IF Elif Integration

### Code

```
amount = int(input("Enter amount: "))

if amount < 1000:
    discount = amount * 0.05
    print("Discount", discount)
elif amount < 5000:
    discount = amount * 0.10
    print("Discount", discount)
else:
    discount = amount * 0.15
    print("Discount", discount)

print("Net payable:", amount - discount)
```

### Output

```
Enter amount: 50000
Discount 7500.0
Net payable: 42500.0
```


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8

# While Loop

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9

## Loops in python

Code	Output
<pre><b><u>While LOOP</u></b> count = 0 while (count &lt; 9):     print ('The count is:', count)     count = count + 1  print ("Good bye!")</pre>	<pre>The count is: 0 The count is: 1 The count is: 2 The count is: 3 The count is: 4 The count is: 5 The count is: 6 The count is: 7 The count is: 8 Good bye!</pre>

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10

## Loops in python

### Code

#### For LOOP

```
fruits = ["apple", "banana", "cherry"]
for x in fruits:
    print(x)
```

### Output

```
apple
banana
cherry
```

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11

## Loops in python

### Code

#### Nested For LOOP

```
adj = ["red", "big", "tasty"]
fruits = ["apple", "banana", "cherry"]

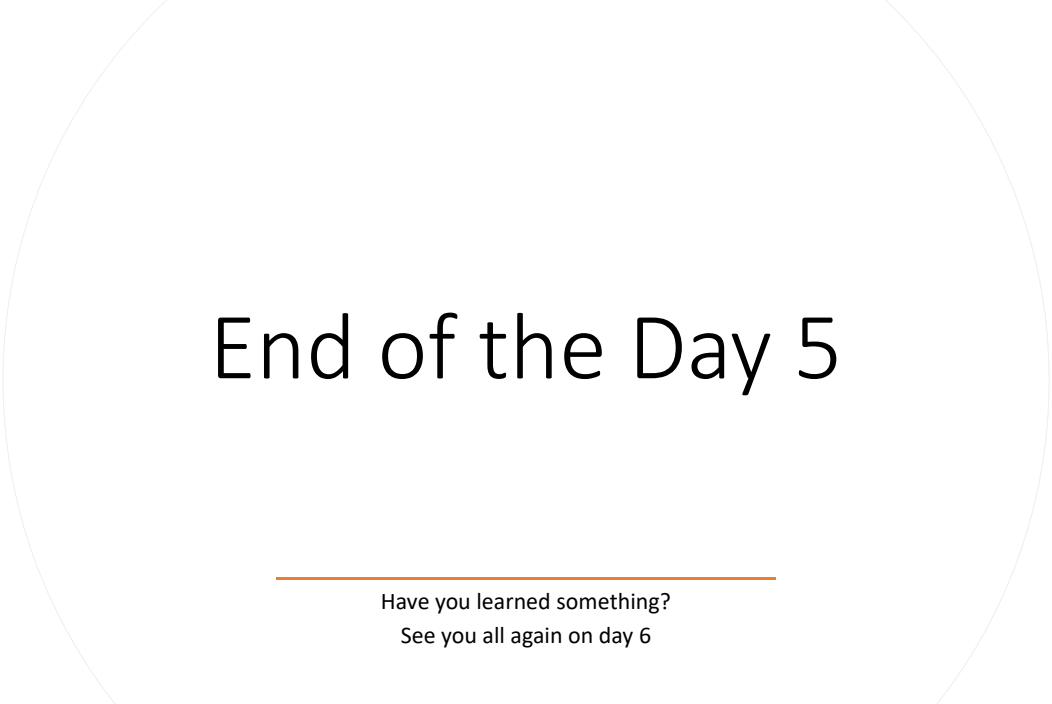
for x in adj:
    for y in fruits:
        print(x, y)
```

### Output

```
red apple
red banana
red cherry
big apple
big banana
big cherry
tasty apple
tasty banana
tasty cherry
```

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12



# End of the Day 5

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Have you learned something?  
See you all again on day 6

13