

Every day you are faced with decisions.

- Should I drive or take the bus?
- Should I cook at home or go out for dinner?
- Which laptop should I buy?

The choice you make depends on different conditions.

- Should I drive or take the bus?
 - Am I late? What's the price of gas?
- Should I cook at home or go out for dinner?
 - Do I have any food at home? Do I have enough money to go out?
- Which laptop should I buy?
 - How much RAM do I need? How much money do I have?

Everyday decisions

- If the user maintained a bank account balance over \$1000 waive the transaction fees.
- If a user cancels their appointment less than 24 hours before the appointment time, charge a cancellation fee.
- If cat has not been vaccinated, call the owner to set an appointment.
- If order total under \$50, add \$10 shipping charge.
- If course is completed, send certificate to student.

Flow Control

if

if else

if elif else

Chapter 02a

Use **Comparison Operators** for Control Flow

Operator	Meaning
==	Equal to
!=	No equal to
<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to
>, <, >=, <= work only with integer or floating numbers	

Boolean Values

- Only has two values: **True** and **False**
- Type case exactly as above: Capital T and Capital F.

Examples – See ATBS – Chapter 02

- Complete the Comparison Operators examples.

Flow Control Statements: if

- IF Statement

- An IF statement could be read as, “If this condition is true, execute the code in the if clause.
- The IF Statement consists of the following:
 - The if keyword
 - A condition (that evaluates to True or False)
 - A colon
 - Starting on the next line, the if clause (indented block of code) will be executed if the condition is True.
 - Place as many lines of code needed, make sure it is indented.
 - Indenting also used for readability.

Flow Control Statements: if

SYNTAX:

if condition:

 indented block of code will be executed

```
if city == 'Hagatna':
```

```
    print('The capital of Guam')
```

#if the condition is true, the if block of code is executed.

#if the condition is false, program execution will not execute the if clause, program execution will continue after.

Examples: if

If condition is true, execute

```
if day == 'Wednesday':  
    print('Don't forget to wear teal GCC polo')
```



Examples: if

```
if maxCredits > 15:
```

```
    print('See GCC Advisor for Advisement and Approval')
```

Examples: if

```
if luggageWt > 50:
```

```
    print('Overweight luggage fee is $100')
```

Flow Control Statements: if, else

SYNTAX:

if condition:

indented block of code

If condition is true, execute

else:

indented block of code

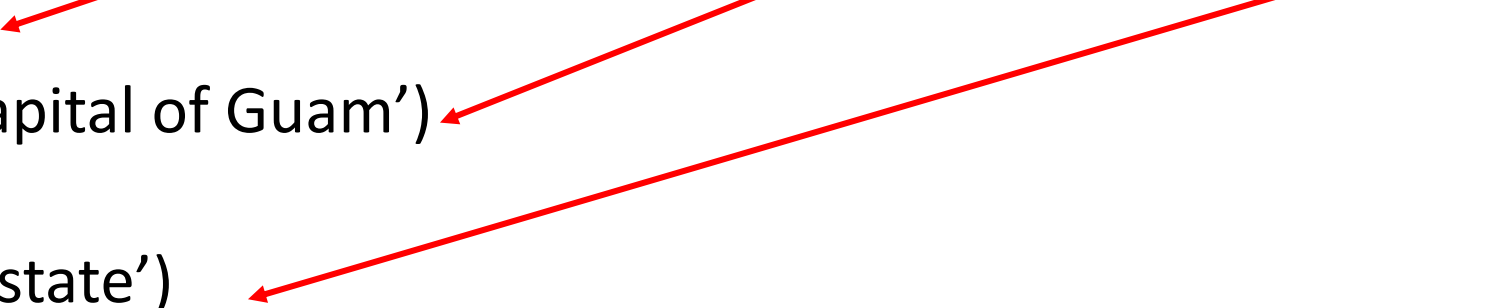
If condition is false, execute

If city == 'Hagatna':

print('The capital of Guam')

else:

print('Not a state')



Examples: if, else

```
if maxCredits > 15:
```

```
    print('See GCC Advisor for Advisement and Approval')
```

```
else:
```

```
    print('Have a Great Semester')
```

Examples: if, else

```
if luggageWt > 50:
```

```
    print('Overweight luggage fee is $100')
```

```
else:
```

```
    print('Thank you for flying United')
```

Flow Control Statements: if, elif, else

SYNTAX:

if condition:

 indented block of code

elif condition:

 indented block of code

(if needed, more elif)

else:

 indented block of code

Examples: if, elif, else

```
if day == 'Wednesday':
```

```
    print('Don't forget to wear teal GCC polo')
```

```
elif day == 'Thursday':
```

```
    print('Wear other GCC colored polo or t-shirt')
```

```
else:
```

```
    print('Wear appropriate attire')
```

The “elif” allows you to check for different values.

```
country = input("Where are you from? ").upper()
```

```
if country == "CANADA" :  
    print("Hello")
```

```
elif country == "GERMANY" :  
    print("Guten Tag")
```

```
elif country == "FRANCE" :  
    print("Bonjour")
```

```
else:  
    print('Please refer to Google for the correct greeting')
```

Examples: if, elif, else

```
windSpeed = int(input('Enter wind speed'))
```

```
if windSpeed >= 157:
```

```
    print('Typhoon Category 5')
```

```
elif windSpeed >= 130:
```

```
    print('Typhoon Category 4')
```

```
elif windSpeed >= 111:
```

```
    print('Typhoon Category 3')
```

```
elif windSpeed >= 96:
```

```
    print('Typhoon Category 2')
```

```
elif windSpeed >= 74:
```

```
    print('Typhoon Category 1')
```

```
else:
```

```
    print('Stay tuned to your Weather channel or app')
```