

General Information

```
Whitespace matters! Indent where needed.
Import modules with "import modulename"
# This is a comment
print("Hello, World!") # prints to screen
```

Conditional Statements

```
if isSunny:
    print('It's sunny!')
elif 90 <= temp < 100 and bath > 80:
    print('Bath is hot and full!')
elif not ((job == 'qa') or (usr == 'adm')):
    print('Match if not qa or adm')
else:
    print('No match. Job is ' + job)
```

Lists

```
scores = ['A', 'C', 90, 75, 'C']
scores[0]          # 'A'
scores[1:3]        # 'C', 90
scores[2:]         # 90, 75, 'C'
scores[:1]         # 'A'
scores[:-1]        # 'A', 'C', 90, 75
len(scores)        # 5
scores.count('C')  # 2
scores.sort()      # 75, 90, 'A', 'C', 'C'
scores.remove('A') # removes 'A'
scores.append(100) # Adds 100 to list
scores.pop()       # removes the last item
scores.pop(2)      # removes the third item
75 in scores       # True
```

For Loops

```
grades = ['A', 'C', 'B', 'F']
for grade in grades: # iterate over all vals
    print(grade)

for k,v in enumerate(grades): # using key value pair
    if v=='F':
        grades[k]='A' # change all Fs to As

inv = {'apples': 7, 'peaches': 4}
for fruit, count in inv.items(): # using dictionaries
    print("We have {} {}".format(count, fruit))

for i in range(10): # 0 to 9 counting by 1s
for i in range(5, 10): # 5 to 9 counting by 1s
for i in range(9, 2, -1): # 9 to 3 decreasing by 1s
```

Functions

```
def sumNums(numOne, numTwo = 0):
    return numOne + numTwo

print(sumNums(3,4)) # 7
print(sumNums(3)) # 3
```

Numbers

```
total = 3 * 3 # 9
total = 5 + 2 * 3 # 11
cost = 1.50 + 3.75 # 5.25
total = int("9") + 1 # 10
```

Strings

```
title = 'Us and them'
# most list operations work on strings
title[0] # 'U'
len(title) # 11
title.split(' ') # ['Us', 'and', 'them']
':'.join(['A','B','C']) # 'A:B:C'
nine = str(9) # convert int to string
title.replace('them', 'us') # Us and us
```

Tuples

```
Like lists, except they cannot be changed
tuple1 = (1,2,3,"a","z") # Creates tuple
tuple1[3] # 'a'
```

Dictionaries

```
votes = {'red': 3, 'blue': 5}
votes.keys() # ['blue', 'red']
votes['gold'] = 4 # add a key/val
del votes['gold'] # deletes key
votes['blue'] = 6 # change value
len(votes) # 2
votes.values() # [6, 3]
'green' in votes # False
votes.has_key('red') # True
```

While Loops

```
i = 0
while True:
    i += 1
    if i == 3:
        continue # go to next loop
    if i == 7:
        break # end loop
    print(i) # 1 2 4 5 6
```

Class

```
class Person:
    def __init__(self, name, age):
        self.name = name
        self.age = age

    def birthYear(self):
        return year - self.age

user = Person('Jimmi', 27)
user.name = 'Jim'
print(user.name) # prints Jim
print(user.birthYear())
```