The `if` statement

Example (save as `if.py`):

```
number = 23
guess = int(input('Enter an integer : '))

if guess == number:
    # New block starts here
    print('Congratulations, you guessed it.')
    print('(but you do not win any prizes!)')
    # New block ends here
elif guess < number:
    # Another block
    print('No, it is a little higher than that')
    # You can do whatever you want in a block ...
else:
    print('No, it is a little lower than that')
    # you must have guessed > number to reach here

print('Done')
# This last statement is always executed,
# after the if statement is executed.
```

```
$ python if.py
Enter an integer : 50
No, it is a little lower than that
Done
```

```
$ python if.py
Enter an integer : 22
No, it is a little higher than that
Done
```

```
$ python if.py
Enter an integer : 23
Congratulations, you guessed it.
(but you do not win any prizes!)
Done
```

The while Statement

Example (save as `while.py`):

```
number = 23
running = True

while running:
    guess = int(input('Enter an integer : '))

    if guess == number:
        print('Congratulations, you guessed it.')
        # this causes the while loop to stop
        running = False
    elif guess < number:
        print('No, it is a little higher than that.')
    else:
        print('No, it is a little lower than that.')
else:
    print('The while loop is over.')
    # Do anything else you want to do here

print('Done')
```

```
$ python while.py
Enter an integer : 50
No, it is a little lower than that.
Enter an integer : 22
No, it is a little higher than that.
Enter an integer : 23
Congratulations, you guessed it.
The while loop is over.
Done
```

The `for` loop

Example (save as `for.py`):

```
for i in range(1, 5):
    print(i)
else:
    print('The for loop is over')
```

Output:

```
$ python for.py
1
2
3
4
The for loop is over
```

The break Statement

Example (save as `break.py`):

```
while True:
    s = input('Enter something : ')
    if s == 'quit':
        break
    print('Length of the string is', len(s))
print('Done')
```

Output:

```
$ python break.py
Enter something : Programming is fun
Length of the string is 18
Enter something : When the work is done
Length of the string is 21
Enter something : if you wanna make your work also fun:
Length of the string is 37
Enter something : use Python!
Length of the string is 11
Enter something : quit
Done
```

The `continue` Statement

Example (save as `continue.py`):

```
while True:
    s = input('Enter something : ')
    if s == 'quit':
        break
    if len(s) < 3:
        print('Too small')
        continue
    print('Input is of sufficient length')
    # Do other kinds of processing here...
```

```
$ python continue.py
Enter something : a
Too small
Enter something : 12
Too small
Enter something : abc
Input is of sufficient length
Enter something : quit
```