Python Data Types and Lists

int – whole numbers

float – decimal numbers

String – any characters in " " or ' ' – single or double quotes

word = input("Enter a word") – input enters everything as a String.

That is why you have to cast numbers that are input into an int or float.

num=int(input('Enter a number.')

Spacing is very important in Python. Chunks of code are kept together by lining up indented spaces. If a line is one space off, it will not run.

**if-elif-else –** After an if, elif or else, type a colin:

The code that goes with the true condition is indented.

seconds = 100

if seconds < 60:

 print("Less than a minute")

elif seconds < 120:

 print("Over a minute")

else:

 print("Over two minutes")

**Functions**

Python functions begin with def. A function can perform an action or return a value.

def convertFahrenheitToCelcius(temp):

 celsius = (5/9) \* (temp-32)

 return celsius

**Lists**

A list can hold any data type.

Instead of having many variables of the same data type, you can put them in a list.

Elements in a list are enclosed in [] square brackets.

len tells how many elements are in a list.

wizzard\_list = ['frog', 'spider' , 'bat', 'slug', 'snake']

wizard\_length = len(wizard\_list)

The index of a list starts at 0 and ends at len-1.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 'frog' | 'spider' | 'bat' | 'slug' | 'snake' |
| 0 | 1 | 2 | 3 | 4 |

**Random**

In order to use the random function you must **import random** at the top of your code after your name.

import random # at the top

def get\_word():

 num = **random.randint(0,4)**

 return wizard\_list(num)