Data or values are

numbers (e.g. 9, 2.3) and strings (e.g. "shjsdf")

Variables **store** Values

$$X = 12$$

- Means X has the value 12
- X is the name of some memory dabba which is storing 12
- Anywhere in the program if I say X, it will mean 12 (unless X changes)

Programs are written using variables

```
X = int(input("enter a number: ") )
Y = 2 * X
print(Y)
```

We can ask questions to do this or that...

```
X = int(input("enter a number: "))
if X > 100:
        print("Greater than 100")
elif X > 50:
        print("Greater than 50")
else:
        print("Smaller than 50")
```

We can create re-usable small dabbas called **Functions**..

```
def thisIsAFunction(x):
    return 2*x

X = int( input("enter a number: ") )
Y = thisIsAFunction(X)
print(Y)
This is called a function call
```

We can create loops to repeat things

```
X = int(input("enter a number: "))
Y = 0
while Y < X:
    print("*")
Y = Y + 1</pre>
```

Round #2: Class 1

Writing Simple Programs

Warm-Up

Write a program to take two numbers as input and print their sum

Warm-up # 2

Write a program to take a number N from the user and print N lines of N stars

Exercise #1

from random import randint actual_number = randint(1, 100)

Hangman