Python

Variables

A variable in computer programming is a symbolic identifier for another information. Let's say I have three followers, I set a variable followers with value 3.

There are many kinds of variables each represented in a different way

- String variable: is a named storage, containing a sequence of characters (letters, numbers and symbols). String variables must be enclosed in quotes.
  Ex: username
- Integer variable: a numbered storage, for integer values only.
  Ex: number of followers
- Boolean variables: A fundamental variable representing a state that is either true or false. **Ex: Whether you liked a post or not**

```
#Representing this

string = "words"
integer = 2
is_booleanWorking = True
```

```
#More specifically

username = "Robert"
followers = 348
is_liked = False
```

Above is how we set these variables, the specific value of the variable must be to the right. On the left we place the name of the variable.

By Setting Variables our code becomes more simple, since once the variable is set instead of writing its value each time we can simply call for its name and it will always give us that value. Additionally, variables allow us to write conditional codes too.

```
#Setting variables and conditions

username = "SpartyEngineer2026"
age = 18
score = 10
is_learning = True

print (f"username: {username}")
if age >= 18:
 print (f"age: {age}")
if is_learning:
 print (f"score: {score}")
```

Now let’s learn how to update variables

- Updating a variable means you have an existing variable that you want to change. Let’s say I have 39 followed and just gained a new one, we should make a program that updates this variable (adds one).
- Additionally, let’s say i want to change my username. My program should be ready to update it as well.

```
#Updating variables

username = "SpartyEngineer2026"
followers = 9995
verified = False

#Now lets say this user has
#gained 5 followers and we want to
#update that

followers += 5

#And lets say users get verified
#if they have 10k followers

if followers >= 10000:
   verified = True
   print ("account verified✅", Followers: followers)

#Now you lost 1 follower

followers -= 1

if followers < 10000:
  verified = False
  print ("account unverified", Followers: followers)
```

Take a look at an example of somebody trying to update a string variable (their password):

```
username = "SpartyEngineer2026"
password = "GoGreen"
failed_login = 1
lock = False
```

```
pswd_attempt = "wolverines"

if pswd_attempt == password:
    print("Login successful")
else:
    print("Error, wrong password")
    failed_login += 1

if failed_login >= 2:
    lock = True
    print("Account locked, create new password")

# Simulating password reset
new_pswd = "GoWhite"
confirm = "GoWhite"

if new_pswd == confirm:
    password = new_pswd #Updates the string
    print("Password Updated")
    lock = False
else:
    print("Error, wrong password")
```