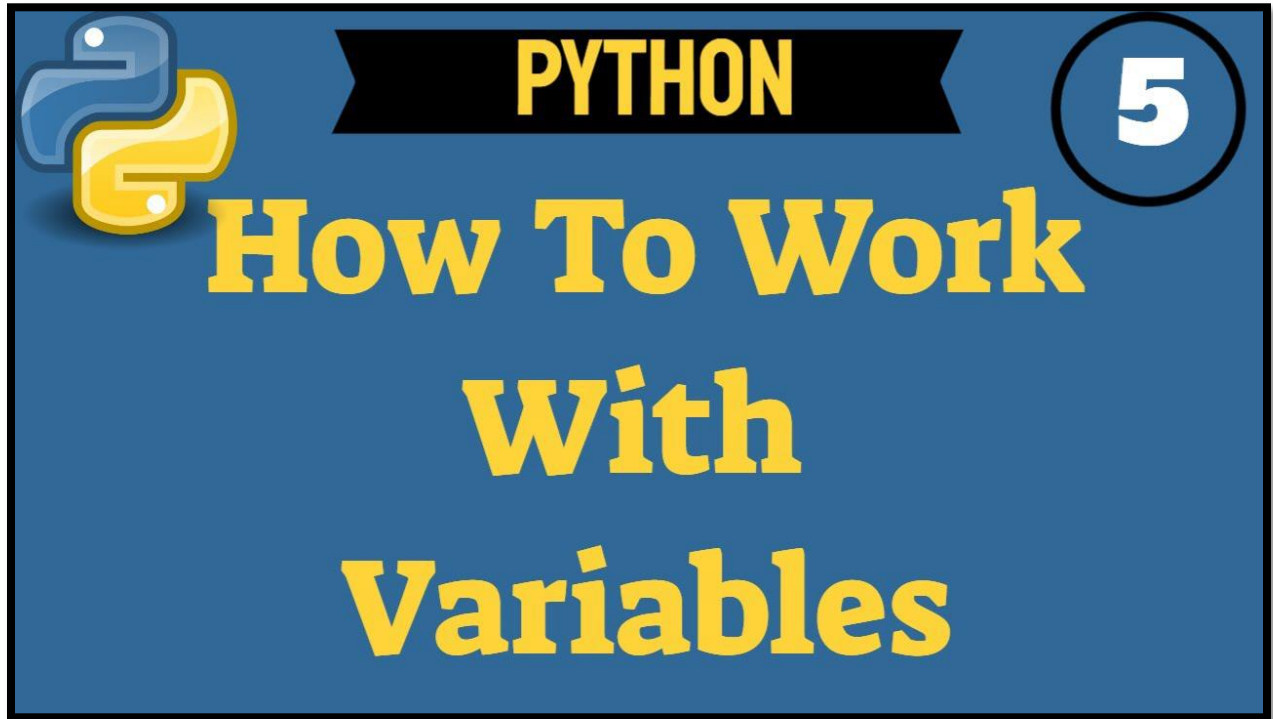


How To Work With Python Variables



Video https://www.youtube.com/watch?v=NB_bjHxyMHE&list=PLfp-cJ6BH8u8iMtCoea_mWkGesJGQG-vZ&index=5

Working With Variables

In this session, we are going to work with some variables. When it comes to programming, we manage a lot of information. As a result, variables help us to deal with that information because a variable is a memory location. I will use a short story with a few print statements to show you how we can handle and work with variables. Let's add 3 print statements. I'm going to add some more

```
print("Hi, my name is Rex and I am a ")  
print('Software Engineer. Skill set includes ')  
print("Programming, Automation, and Testing. ")  
print("5 years as a Functional Tester ")  
print("and 10 years with Automation")  
print("In the future, I hope to be a Software Engineer.")
```

```
print("Hi, my name is Rex and I am a ")
print('Software Engineer. Skill set includes ')
print("Programming, Automation, and Testing. ")
print("5 years as a Functional Tester ")
print("and 10 years with Automation")
print("In the future, I hope to be a Software Engineer.")
```

Let's Run. We see the same story in the console.

```
Hi, my name is Rex and I am a
Software Engineer. Skill set includes
Programming, Automation, and Testing.
5 years as a Functional Tester
and 10 years with Automation
In the future, I hope to be a Software Engineer.
```

That's cool but what if 100 more people wanted to introduce themselves using this program. For example, the name changed from Rex to John. To update this program, I can manually change Rex to John. However, that would take a lot of work because the name and title would probably change. Let me show you how variables can make this useful and easy. We can store the information inside a variable. One way is to hard code the value and another way is to prompt for the value.

Let's start with hard coding a value. Above the story, I will write `name = "James"`. I'm storing James inside the name container or we can say memory location. Next, is `title = "Software Tester"`. Let's add some more values for years of experience: `functional_yrs = "10"` and `automation_yrs = "20"`.

Now we replace the values in the story with a variable. Replace John with the variable name but I have to end the print statement with double quotes before the name variable. Then add a `+` before name and after `+` name then start back over with the print statement. The plus sign appends the name variable. Appending a variable is the same as attaching the variable. Here is the process Python will get the value from the variable then print the value. Replace Software Engineer with `title + "`, change 5 to `functional_yrs + "`, change 10 to `" + automation_yrs + "`, and title for the last part.

```
print("Hi, my name is " + name + " and I am a ")
print(title + " Skill set includes ")
print("Programming, Automation, and Testing. ")
print(functional_yrs + " years as a Functional Tester ")
```

```
print("and " + automation_yrs + " years with Automation")  
print("In the future, I hope to be a " + title)
```

Now, let's Run and we see the same story but the values changed.

```
Hi, my name is Jamesand I am a  
Software Tester. Skill set includes  
Programming, Automation, and Testing.  
10 years as a Functional Tester  
and 20 years with Automation  
In the future, I hope to be a Software Tester
```

James, 10 years, 20 years, and Software Tester also changed. Let me go back and add a space before James. We see each value changed in the console. The nice part is a value can change all the time. We don't have to type in the name every single time but only refer to the variable in the story. Now, let's prompt for a value by writing a few print statements/

```
print("What Is your name?")  
name = input()  
print("What is your title?")  
title = input()  
print("How many years of functional testing? ")  
functional_yrs = input()  
print("How many years of automation testing? ")  
automation_yrs = input()
```

```
print("What Is your name?")
name = input()
print("What is your title?")
title = input()
print("How many years of functional testing?")
functional_yrs = input()
print("How many years of automation testing?")
automation_yrs = input()
```

If I hover input, we see the description states “Read a string from the standard input”. There will be a prompt and I will enter a value. The value will get stored inside the variable. In the previous session, I showed how to overwrite a value. Let’s modify and overwrite title by putting in a blank line then write title = “CTO”. Let’s Run. What is your name? Joe Doe / What is your title? Scrum Master / How many functional years of experience? 12 / How many years of automation? 11.5.

```
What Is your name?
Joe Doe
What is your title?
Scrum Master
How many years of functional testing?
12
How many years of automation testing?
11.5|
```

The story reads Hi, my name is Joe Doe and I am a Scrum Master. Skill set includes Programming, Automation, and Testing. 12 years as a Functional Tester and 11.5 years with Automation. In the future, I hope to be a CTO.

Hi, my name is Joe Doe and I am a
Scrum Master. Skill set includes
Programming, Automation, and Testing.
12 years as a Functional Tester
and 11.5 years with Automation
In the future, I hope to be a CTO

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