

# **VARIABLES ARE OBJECTS**

Insight Builder

# PROBLEM SOLVED BY VARIABLE

1

## UNDERSTAND VARIABLE

- Variables are addresses
- Variables are objects with properties
- Variables can be any kind of digital coded information

2

## WHAT IS THE PROBLEM?

Variable in the physical world has to be represented inside python. It can be a Integer or a physical Database

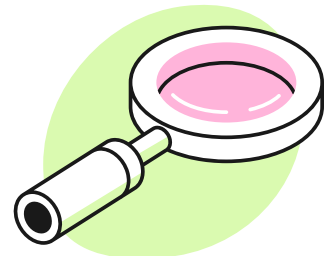
3

## HOW IT SOLVES THEM

- Create a template that mimics the property of real-world variable
- Template can be updated if the variable changes in real-world

# EXAMPLE

## VAR



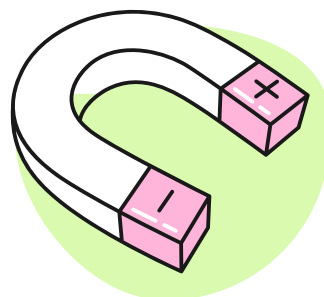
```
VAR1 = 100  
FLT1 = 58.6  
VAR2 = 'Hello'  
VAR3 = weather(temp=10)
```

## VALUE



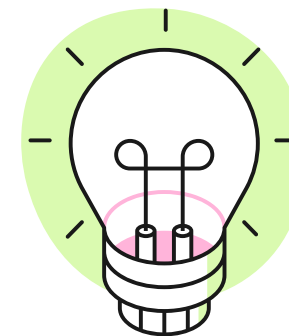
```
100  
58.6  
Hello  
temperature = 10 deg C
```

## TEMPLATE



```
int/ INTEGER  
float/ Decimal  
str/STRING  
weather/ Custom class
```

## WHAT IT CAN DO?

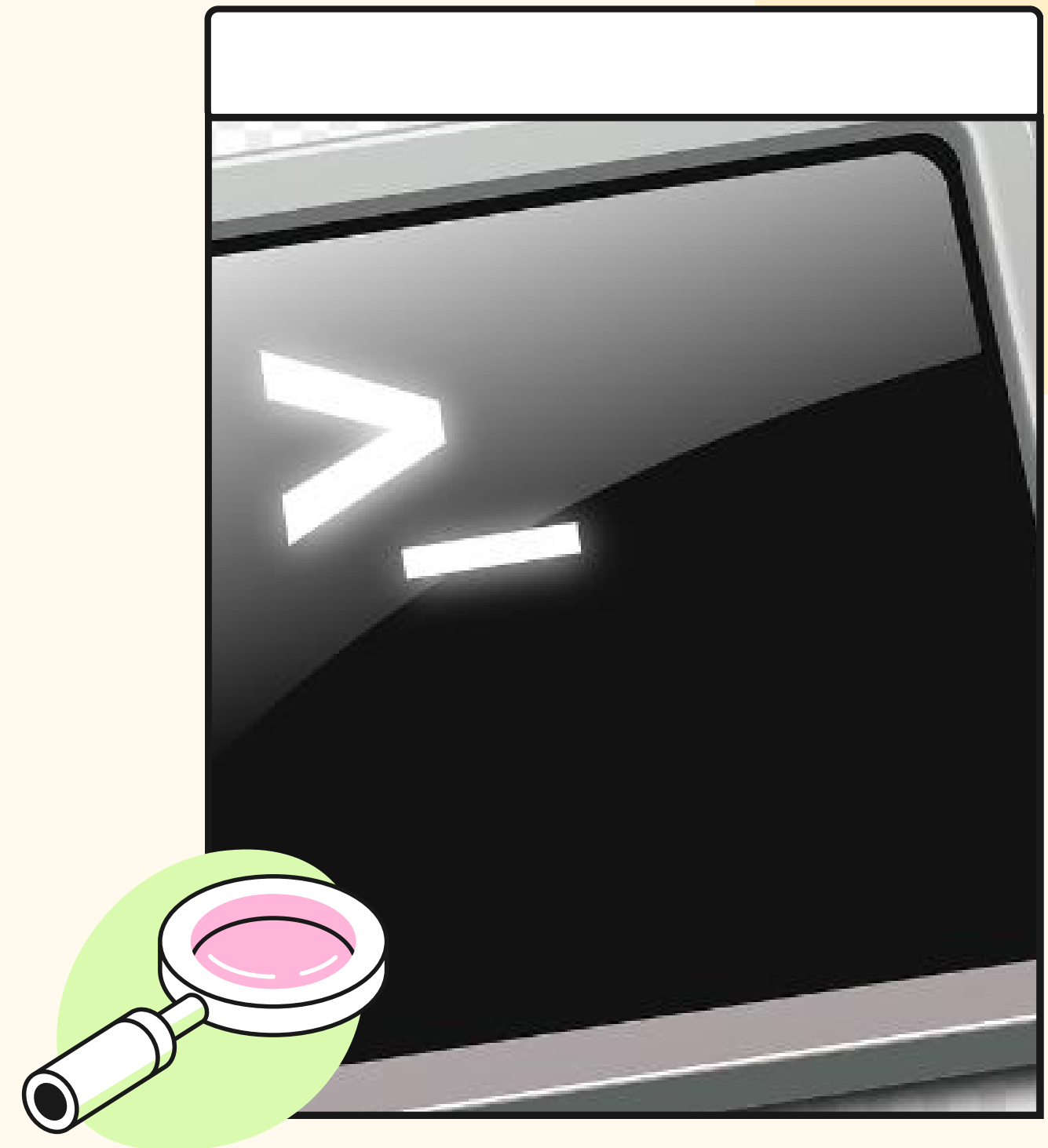


```
int : Integer Operations  
float: Decimal Operations  
str : String Operations  
weather : ??? Operations
```

# PSEUDO CODE

Objective : Write a script that prints variables that are Integers, Decimals, Strings separately and then together

1. Find command for creating variables that are Integers, Decimals, Strings
2. Test if print function prints them how you want
3. Print function signature
4. Execute example on CLI



# 1: FINDING COMMAND

Objective : Create variables that are Integers, Decimals, Strings separately and then together

- Variables are created by simply assigning the Integer/Decimal/String to a english character, word or a sentence



## VAR

```
VAR1 = 100
```

```
FLT1 = 58.6
```

```
VAR2 = 'Hello'
```

```
VAR3 = weather(temp=10)
```

# 1: FINDING COMMAND

Objective : Find a command that can print the variables

- print() function can print the variables
- print() function signature shows the additional capability

**link:**

<https://docs.python.org/3/library/functions.html>

## Built-in Functions

### A

abs()  
aiter()  
all()  
any()  
anext()  
ascii()

### B

bin()  
bool()  
breakpoint()  
bytearray()  
bytes()

### C

callable()  
chr()  
classmethod()  
compile()  
complex()

### D

delattr()  
dict()  
dir()  
divmod()

### E

enumerate()  
eval()  
exec()

### F

filter()  
float()  
format()  
frozenset()

### G

getattr()  
globals()

### H

hasattr()  
hash()  
help()  
hex()

### I

id()  
input()  
int()  
isinstance()  
issubclass()  
iter()

### L

len()  
list()  
locals()

### M

map()  
max()  
memoryview()  
min()

### N

next()

### O

object()  
oct()  
open()  
ord()

### P

pow()  
print()  
property()

### R

range()  
repr()  
reversed()  
round()

### S

set()  
setattr()  
slice()  
sorted()  
staticmethod()  
str()  
sum()  
super()

### T

tuple()  
type()

### V

vars()

### Z

zip()

\_\_import\_\_()

## 2: TESTING COMMAND

Objective : Learn about the print() function and test them

- Visit <https://docs.python.org/3/library/stdtypes.html>
- Use Python CLI next to try out the command

```
print(*objects, sep=' ', end='\n', file=None, flush=False)
```

Print *objects* to the text stream *file*, separated by *sep* and followed by *end*. *sep*, *end*, *file*, and *flush*, if present, must be given as keyword arguments.

- Can easily guess what a *sep* and *end* might be, but what is *\*objects*?
- Where are the examples, to see how print works?
- In python cli the variables are printed out, even without print statement, how?

**In the video I will show and explain the examples.**

## **print\_script.py**

```
#!/usr/bin/env python  
#As shown in the video use the  
#commands and create your script and  
#execute
```

## **COMMAND LINE**

```
python print_script.py
```



**WE HAVE PRINTED AND  
LEARNT ABOUT  
VARIABLES!!!!**

Any Questions...

