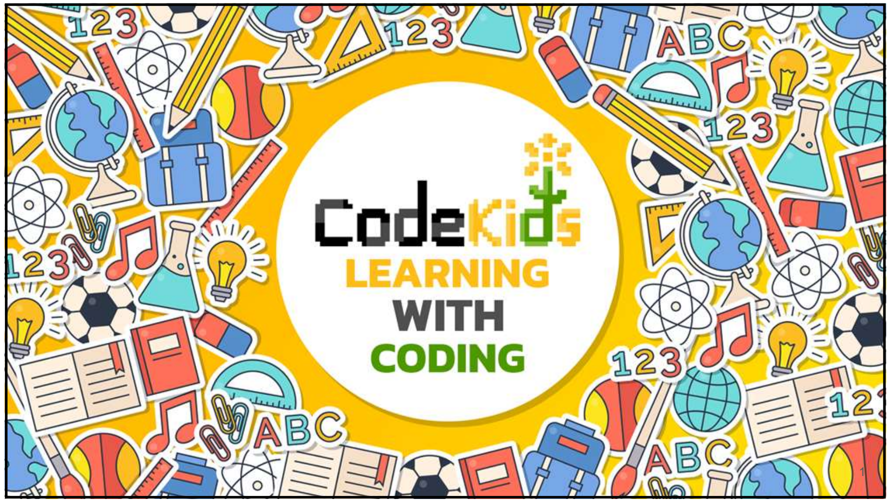


CodeKids
LEARNING
WITH
CODING

1

Course : CLASS python #1

Instructor : P'Dune

2

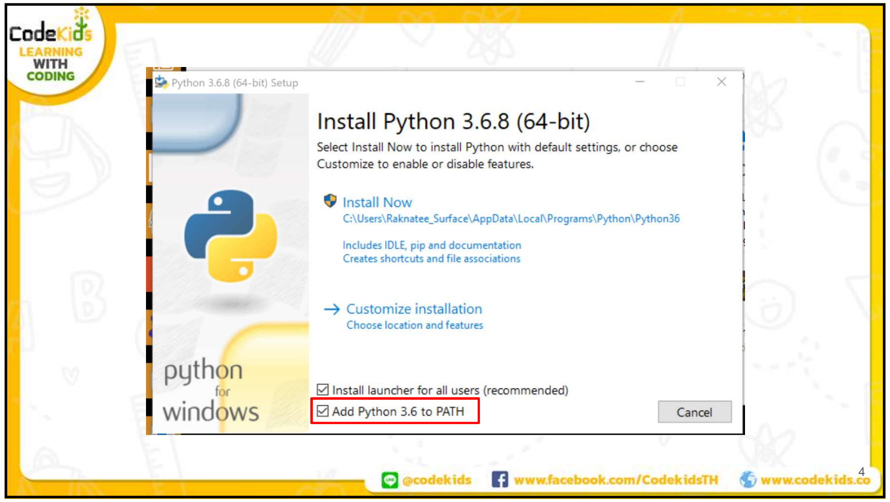
Set up Python

Download Python and set PATH

IDE

- VS studio
- Python IDLE

3



Python 3.6.8 (64-bit) Setup

Install Python 3.6.8 (64-bit)

Select Install Now to install Python with default settings, or choose Customize to enable or disable features.

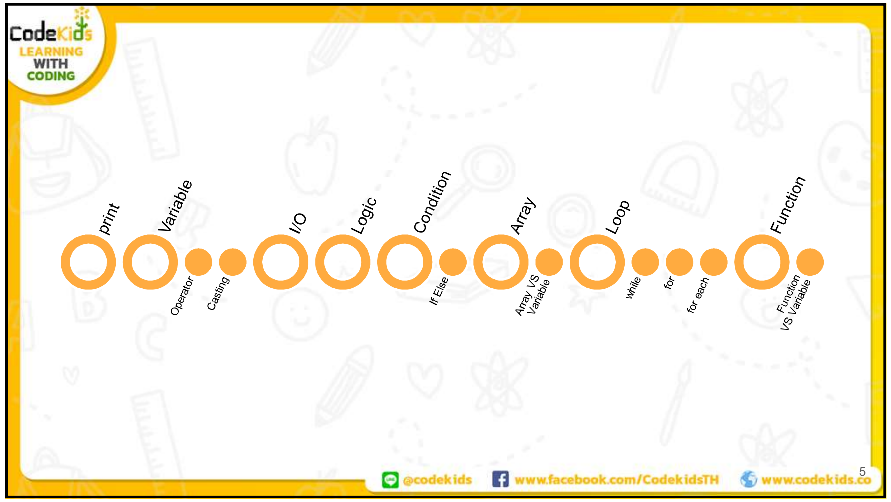
Install Now
C:\Users\Raknatee_Surface\AppData\Local\Programs\Python\Python36

Includes IDLE, pip and documentation
Creates shortcuts and file associations

→ Customize installation
Choose location and features

☑ Install launcher for all users (recommended)
☑ Add Python 3.6 to PATH

4


print
Variable
Operator
Casting
I/O
Logic
Condition
If Else
Array
Array VS Variable
Loop
while
for
for each
Function
Function VS Variable
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5

Topic :

1. HelloWorld

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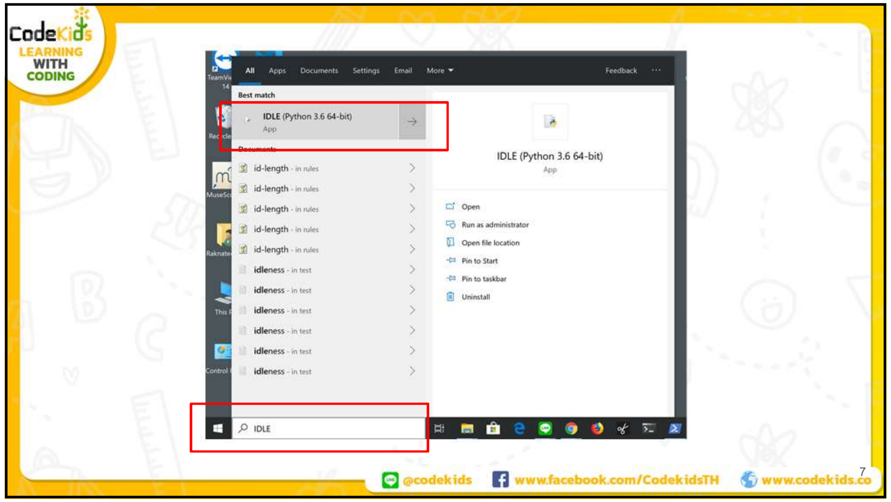
6


All
Apps
Documents
Settings
Email
More
Feedback
Best match
IDLE (Python 3.6 64-bit)
App
Documents
id-length - in rules
id-length - in rules
id-length - in rules
id-length - in rules
id-length - in rules
idleness - in test
idleness - in test
idleness - in test
idleness - in test
idleness - in test
idleness - in test
IDLE (Python 3.6 64-bit)
App
Open
Run as administrator
Open file location
Pin to Start
Pin to taskbar
Uninstall
IDLE
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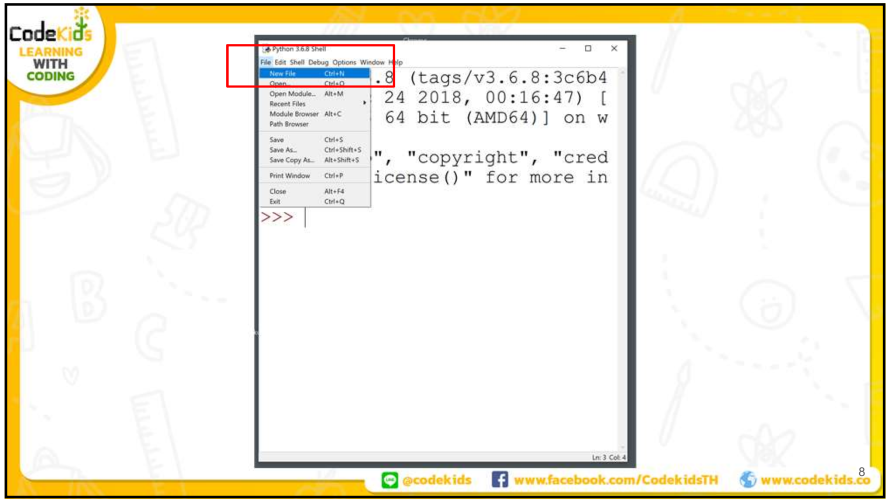
7


```
.8 (tags/v3.6.8:3c6b4
 24 2018, 00:16:47) [
 64 bit (AMD64)] on w

", "copyright", "cred
icense()" for more in
>>> 
```

Python 3.6.8 Shell
File
Edit
Shell
Debug
Options
Window
Help
New File Ctrl+N
Open... Ctrl+O
Open Module... Alt+M
Recent Files
Module Browser Alt+C
Path Browser
Save Ctrl+S
Save As... Ctrl+Shift+S
Save Copy As... Alt+Shift+S
Print Window Ctrl+P
Close Alt+F4
Exit Ctrl+Q
Ln: 3 Col: 4
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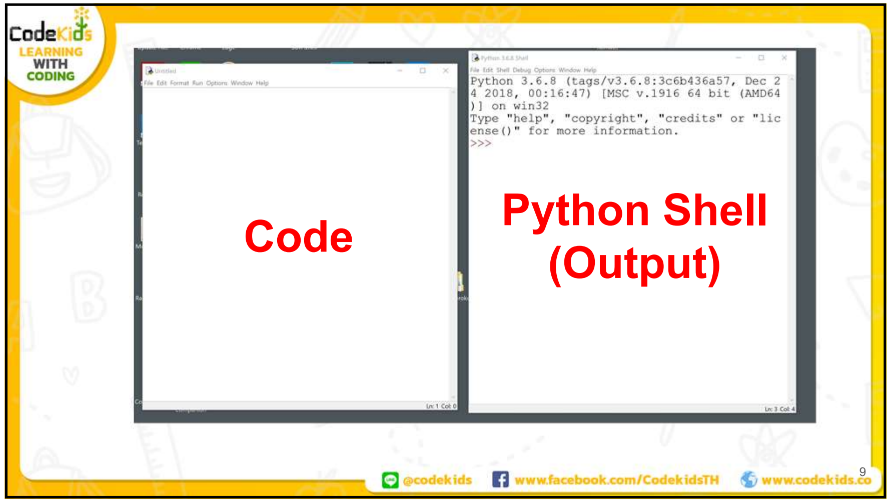
8

8


CodeKids
LEARNING WITH CODING
Untitled
File Edit Format Run Options Window Help
Python 3.6.8 Shell
File Edit Shell Debug Options Window Help
Ln: 1 Col: 0
Ln: 3 Col: 4
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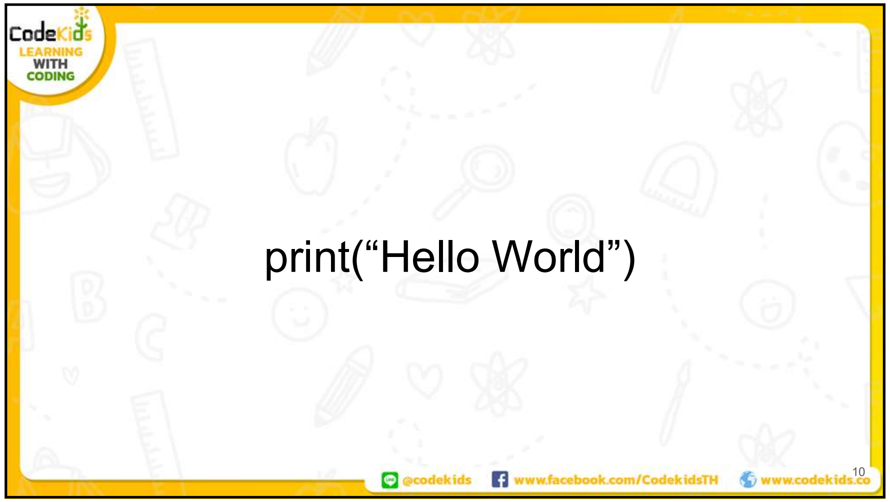
9

```
Python 3.6.8 (tags/v3.6.8:3c6b436a57, Dec 2
4 2018, 00:16:47) [MSC v.1916 64 bit (AMD64
)] on win32
Type "help", "copyright", "credits" or "lic
ense()" for more information.
>>>
```

Code

Python Shell (Output)

9


CodeKids
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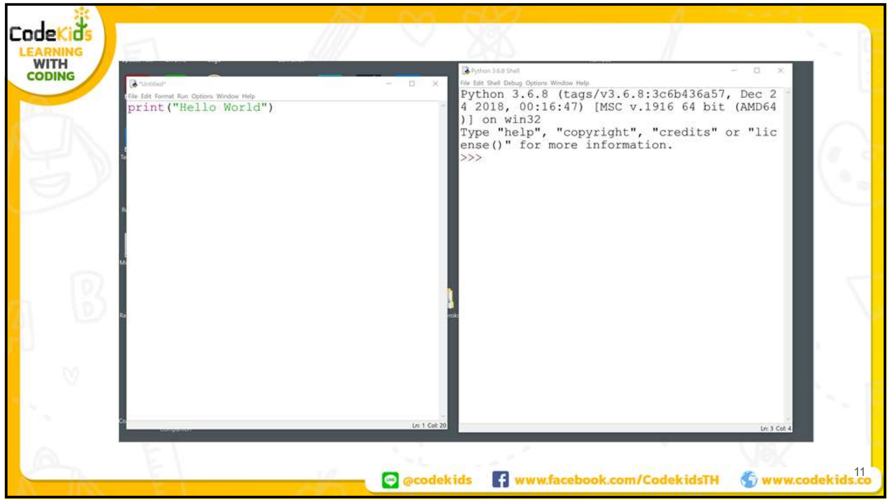
10

print(“Hello World”)

10


CodeKids
LEARNING WITH CODING
Untitled
File Edit Format Run Options Window Help
Python 3.6.8 Shell
File Edit Shell Debug Options Window Help
Ln: 1 Col: 20
Ln: 3 Col: 4
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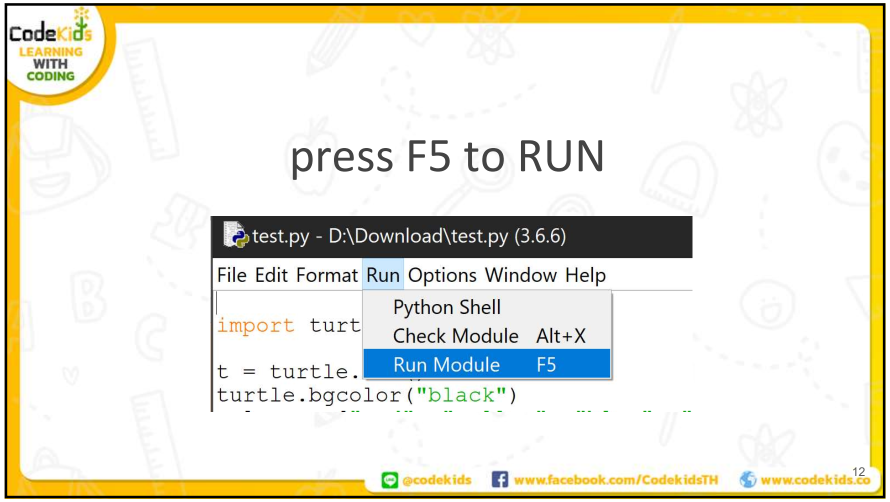
11

```
print("Hello World")
```

```
Python 3.6.8 (tags/v3.6.8:3c6b436a57, Dec 2
4 2018, 00:16:47) [MSC v.1916 64 bit (AMD64
)] on win32
Type "help", "copyright", "credits" or "lic
ense()" for more information.
>>>
```

11


CodeKids
LEARNING WITH CODING
test.py - D:\Download\test.py (3.6.6)
File Edit Format Run Options Window Help
Python Shell
Check Module Alt+X
Run Module F5
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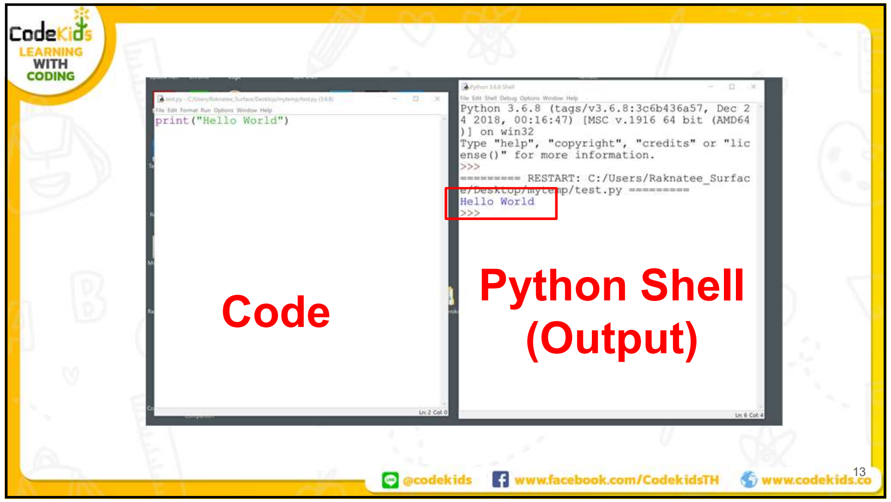
12

press F5 to RUN

```
import turt

t = turtle.
turtle.bgcolor("black")
```

12



```
print("Hello World")
```

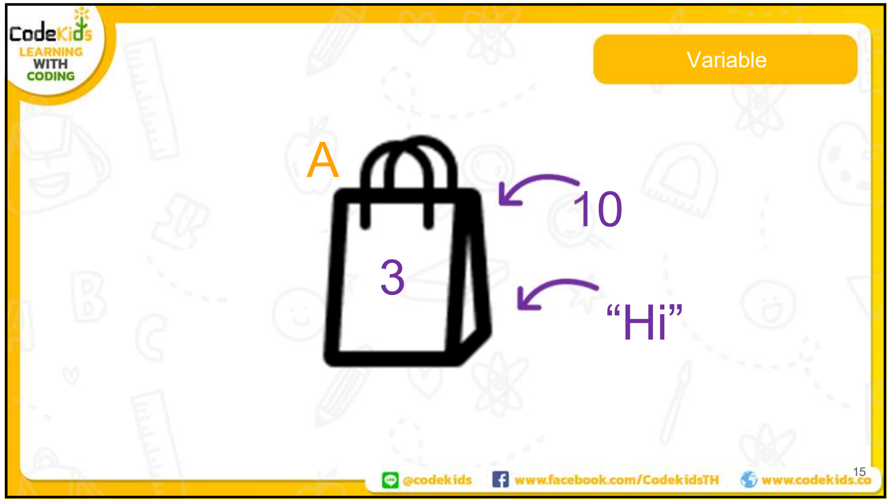
```
Python 3.6.8 (tags/v3.6.8:3c6b436a57, Dec 2
4 2018, 00:16:47) [MSC v.1916 64 bit (AMD64
)] on win32
Type "help", "copyright", "credits" or "lic
ense()" for more information.
>>>
========= RESTART: C:/Users/Raknatee_Surfac
e/Desktop/mytemp/test.py =========
Hello World
>>>
```

Code

Python Shell (Output)

Topic :

2. Variable



Variable

A

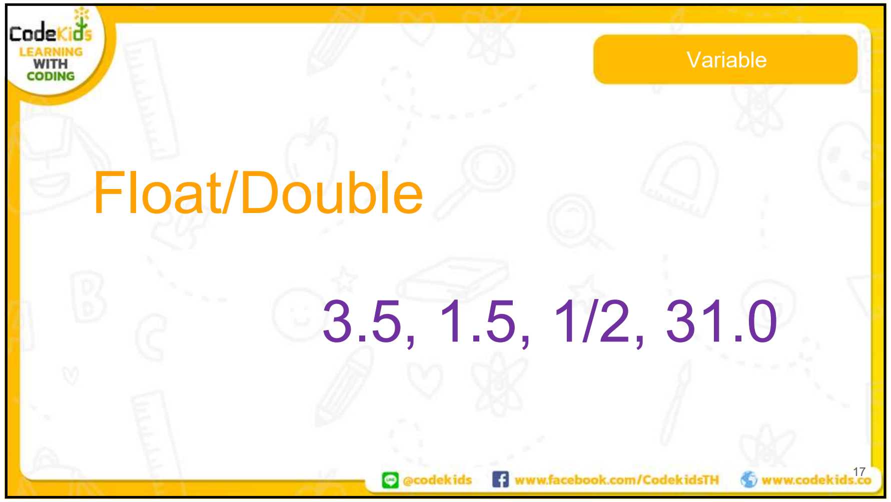
3

10

“Hi”

Variable

Int 3, 4, 100, 99



Variable

Float/Double

3.5, 1.5, 1/2, 31.0

17

Variable

String

“Dune”, “Hello World”

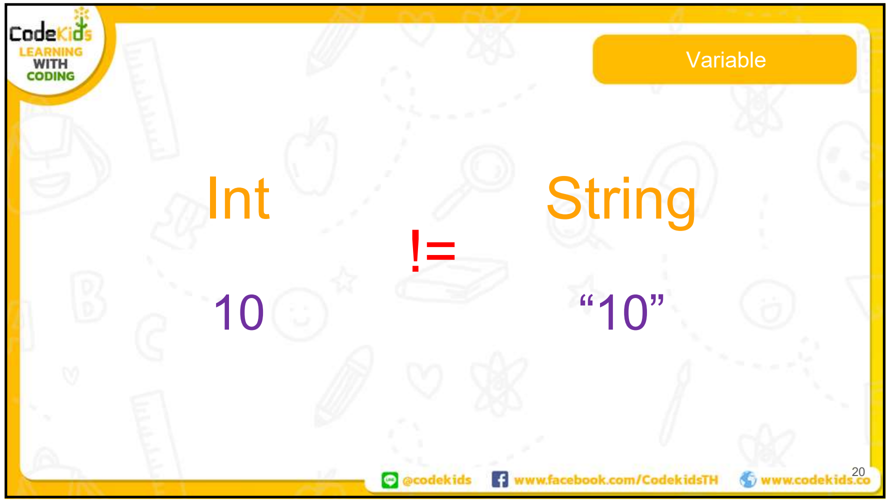
18

Variable

Boolean

True, False

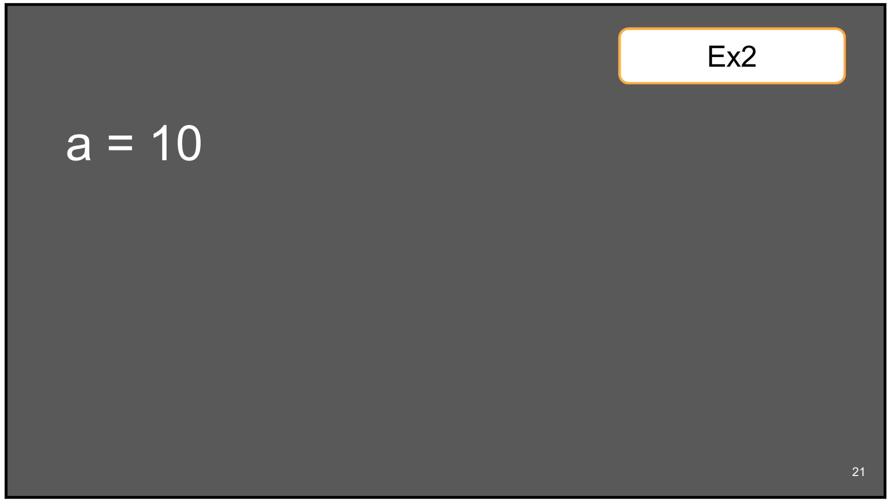
19



Variable

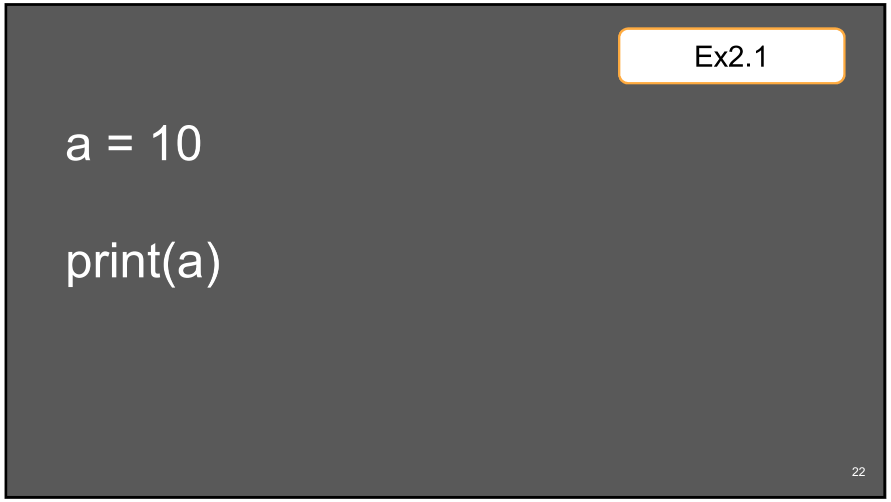
Int	!=	String
10		“10”

20



Ex2

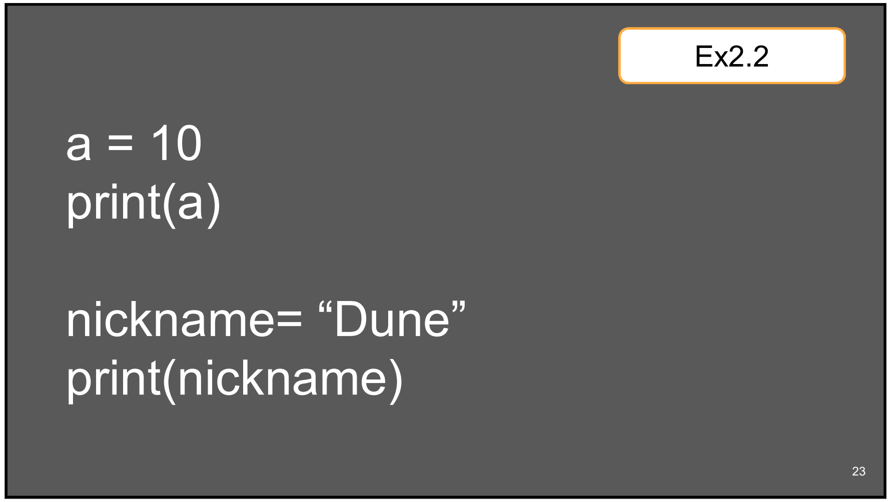
```
a = 10
```



Ex2.1

```
a = 10

print(a)
```



Ex2.2

```
a = 10
print(a)

nickname= “Dune”
print(nickname)
```

Topic :

3. Operator

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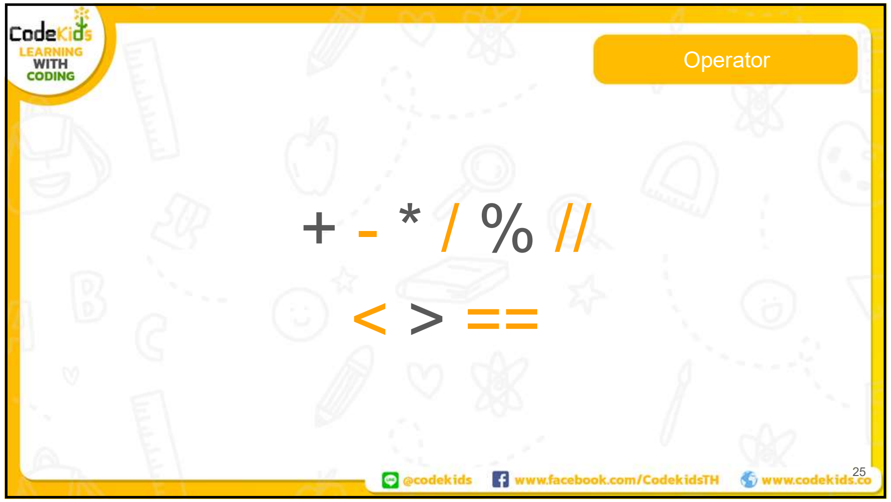
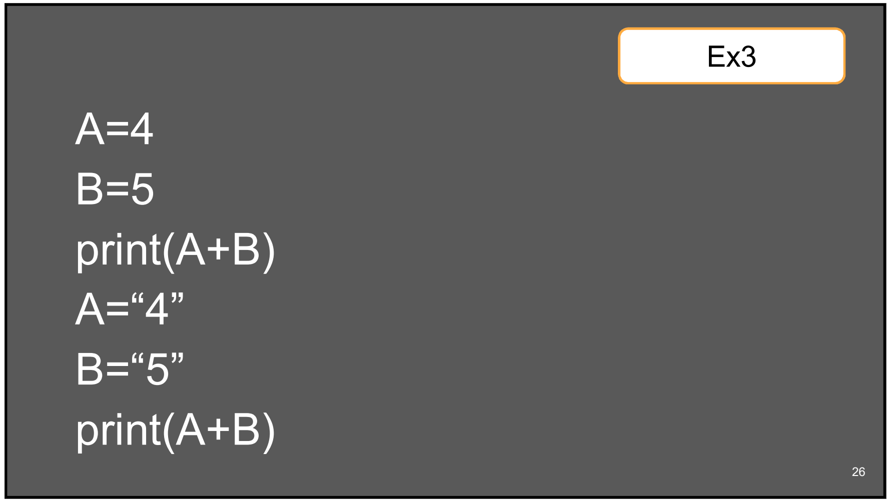


Operator

+ - * / % //

< > ==

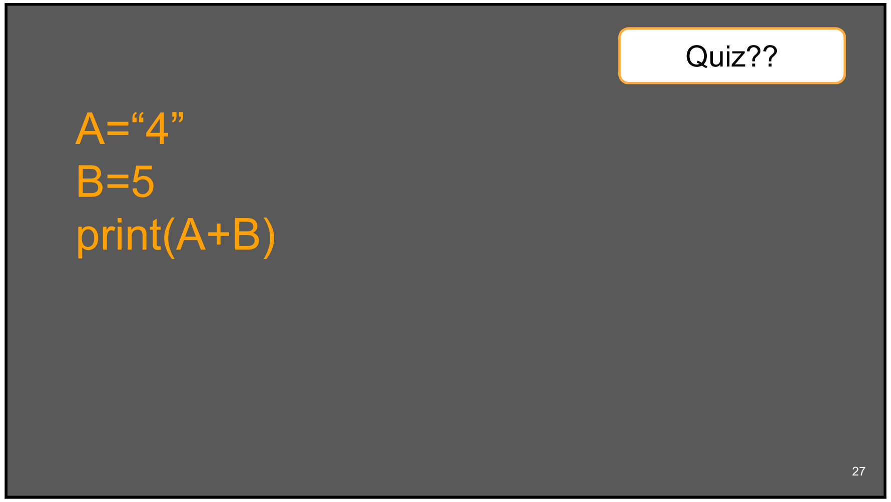
25



Ex3

```
A=4
B=5
print(A+B)
A=“4”
B=“5”
print(A+B)
```

26



Quiz??

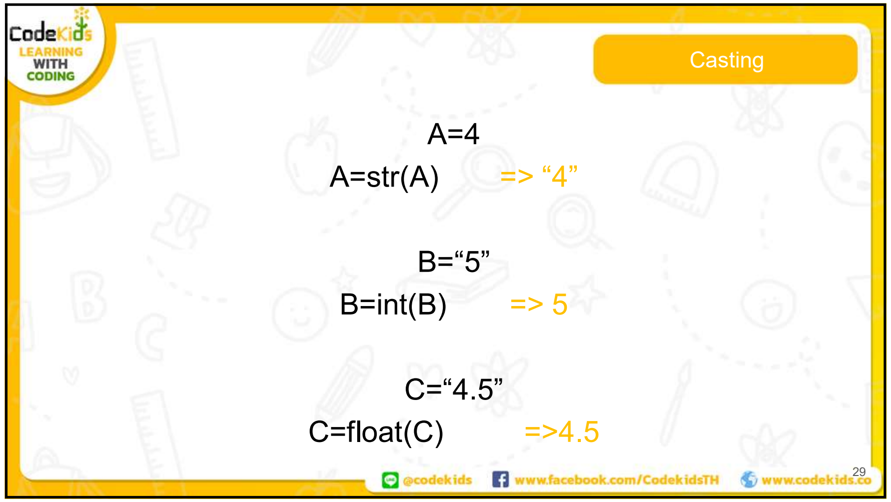
```
A=“4”
B=5
print(A+B)
```

27

Topic :

4. Casting

28



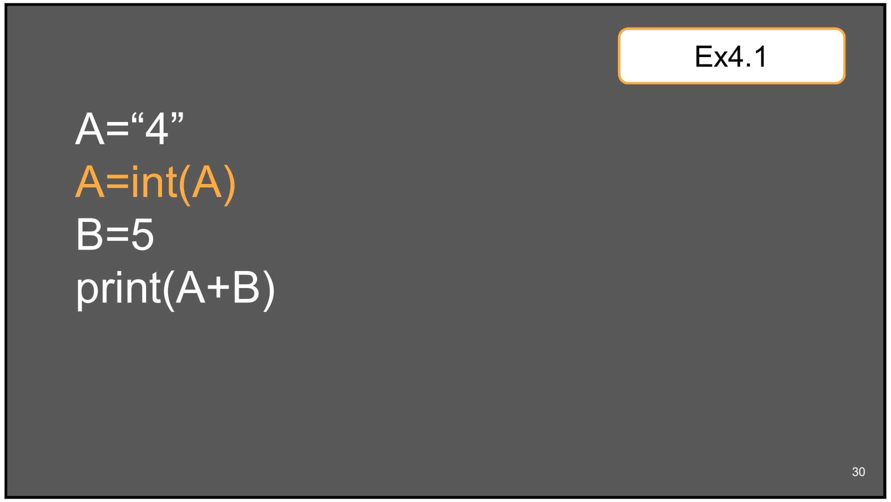
Casting

```
A=4
A=str(A)      => “4”

B=“5”
B=int(B)      => 5

C=“4.5”
C=float(C)    =>4.5
```

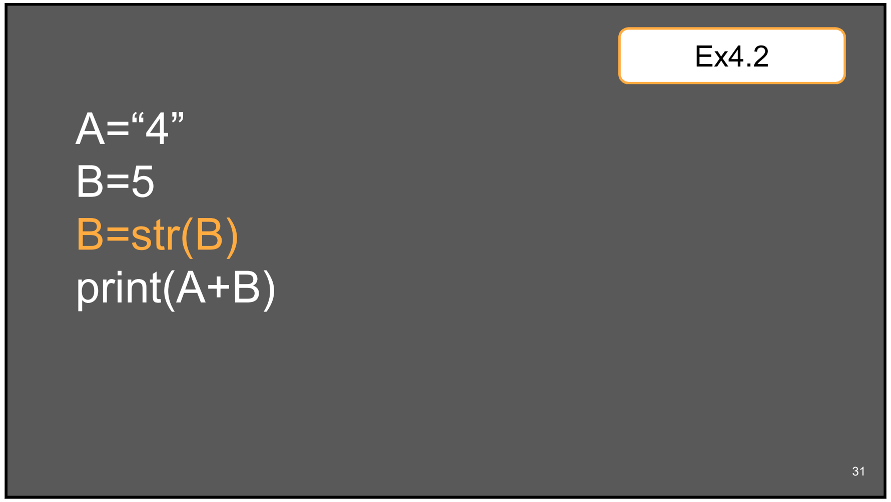
29



Ex4.1

```
A=“4”
A=int(A)
B=5
print(A+B)
```

30



Ex4.2

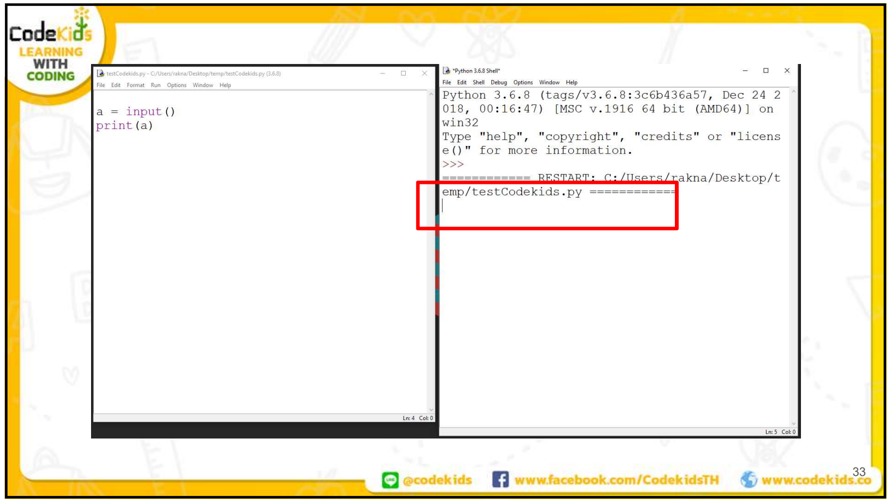
```
A=“4”
B=5
B=str(B)
print(A+B)
```

31

Topic :

5. I/O

32


CodeKids
LEARNING WITH CODING
testCodekids.py - C:/Users/rakna/Desktop/temp/testCodekids.py (3.6.8)
File Edit Format Run Options Window Help
Ln: 4 Col: 0
Python 3.6.8 Shell
File Edit Shell Debug Options Window Help
Ln: 5 Col: 0
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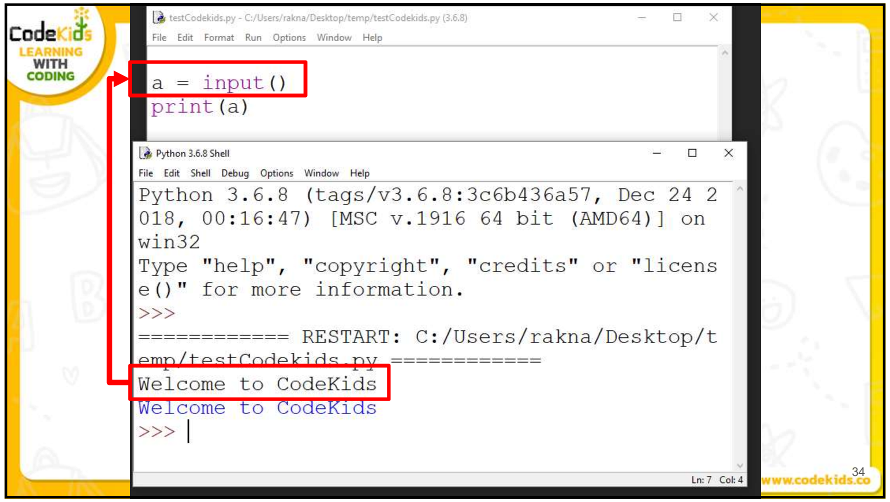
33

```
a = input()
print(a)
```

```
Python 3.6.8 (tags/v3.6.8:3c6b436a57, Dec 24 2
018, 00:16:47) [MSC v.1916 64 bit (AMD64)] on
win32
Type "help", "copyright", "credits" or "licens
e()" for more information.
>>>
============ RESTART: C:/Users/rakna/Desktop/t
emp/testCodekids.py ============
```


CodeKids
LEARNING WITH CODING
testCodekids.py - C:/Users/rakna/Desktop/temp/testCodekids.py (3.6.8)
File Edit Format Run Options Window Help
Python 3.6.8 Shell
File Edit Shell Debug Options Window Help
Ln: 7 Col: 4
www.codekids.co
34

```
a = input()
print(a)
```

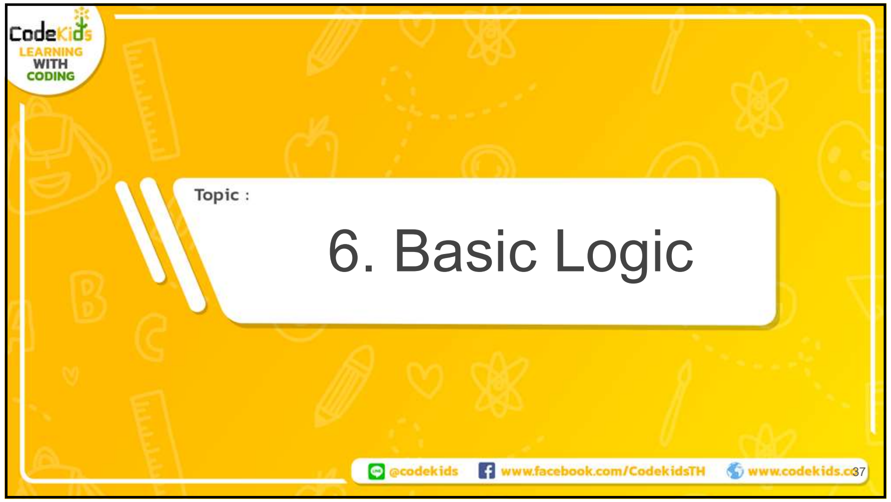
```
Python 3.6.8 (tags/v3.6.8:3c6b436a57, Dec 24 2
018, 00:16:47) [MSC v.1916 64 bit (AMD64)] on
win32
Type "help", "copyright", "credits" or "licens
e()" for more information.
>>>
============ RESTART: C:/Users/rakna/Desktop/t
emp/testCodekids.py ============
Welcome to CodeKids
Welcome to CodeKids
>>> |
```

Ex5.1

```
A = input()
print(A)
```

Ex5.2

```
A = input(“What your name”)
print(A)
```

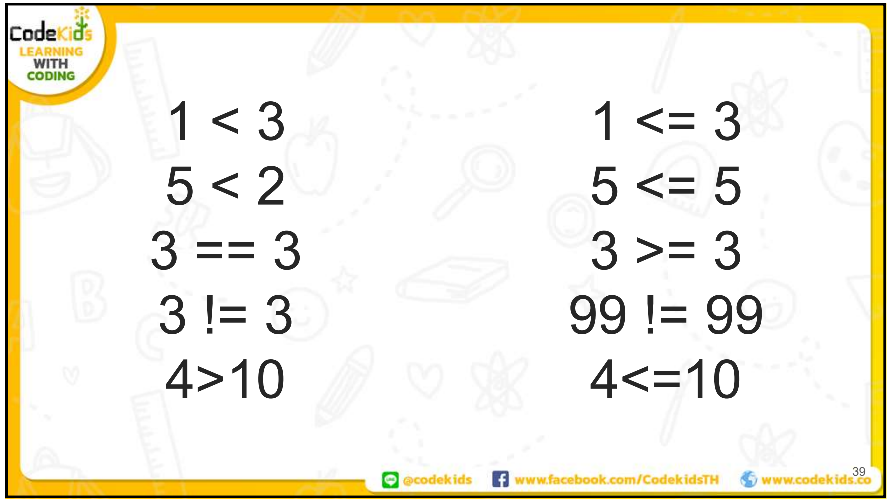


Topic :

6. Basic Logic

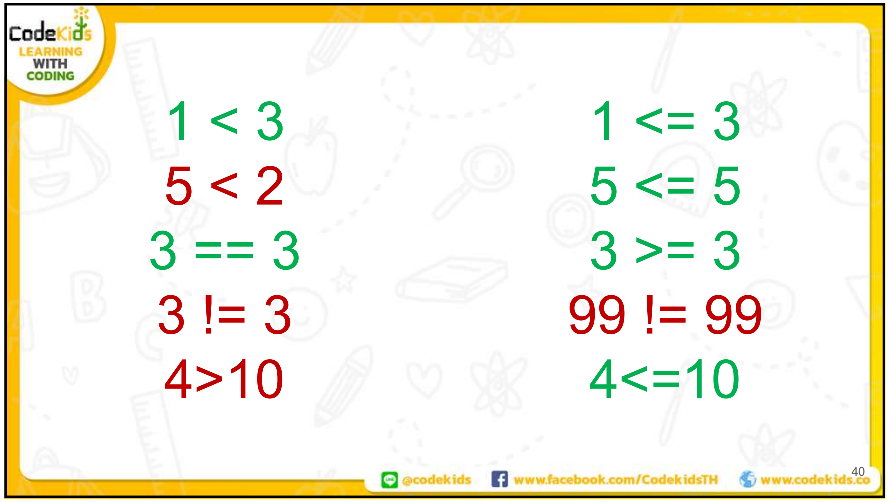
True or False

Game



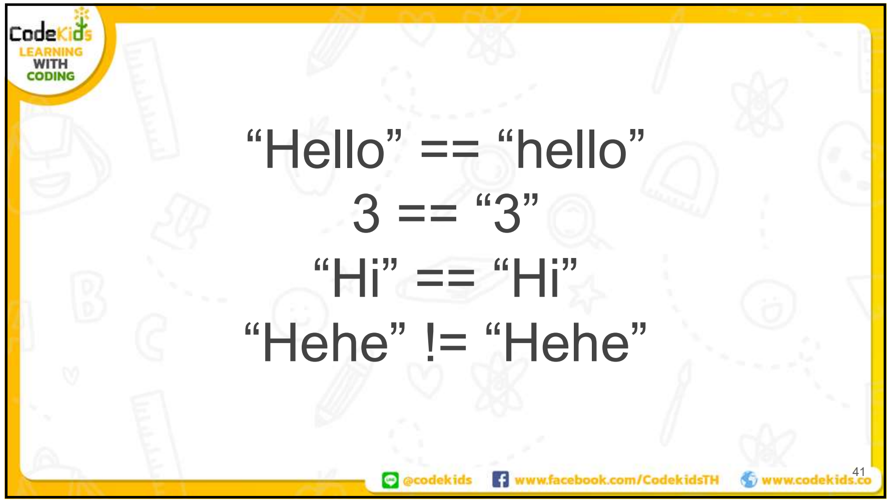
1 < 3
5 < 2
3 == 3
3 != 3
4>10

1 <= 3
5 <= 5
3 >= 3
99 != 99
4<=10



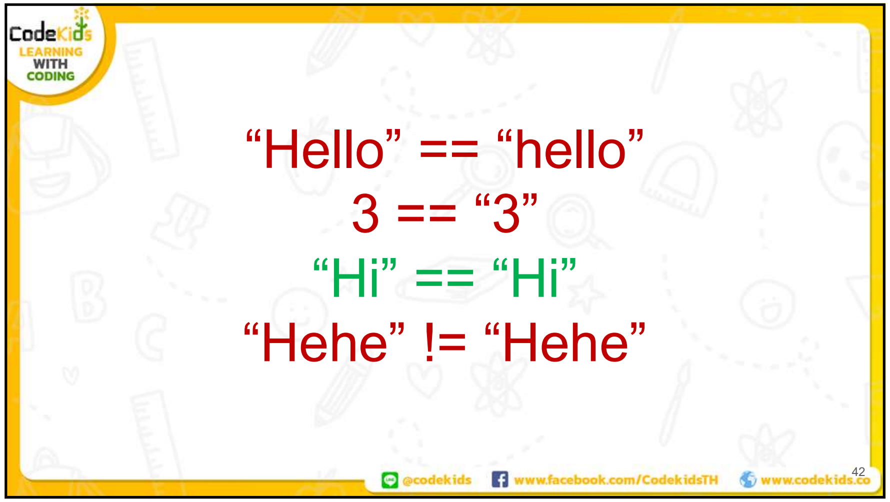
1 < 3
5 < 2
3 == 3
3 != 3
4>10

1 <= 3
5 <= 5
3 >= 3
99 != 99
4<=10



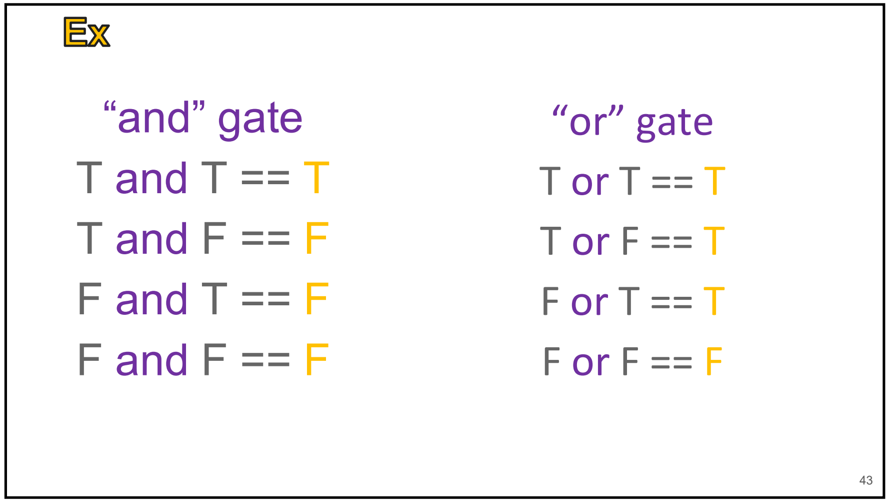
“Hello” == “hello”
3 == “3”
“Hi” == “Hi”
“Hehe” != “Hehe”

41



“Hello” == “hello”
3 == “3”
“Hi” == “Hi”
“Hehe” != “Hehe”

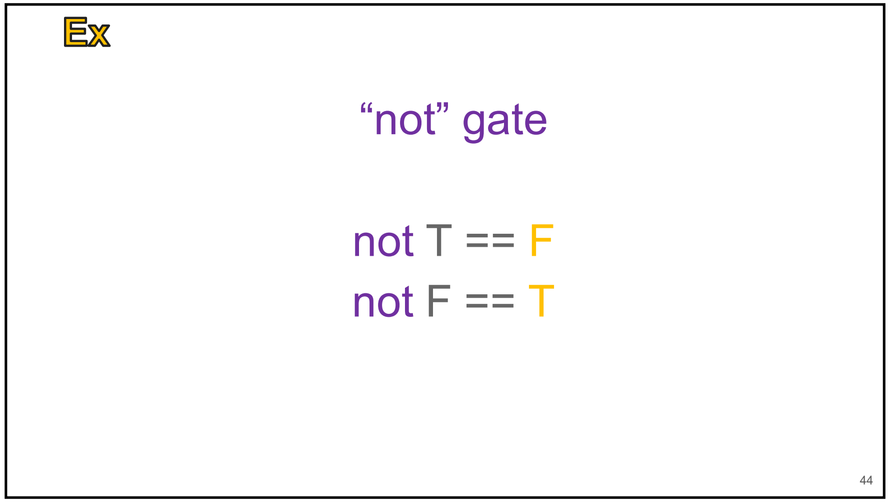
42



Ex

“and” gate	“or” gate
T and T == T	T or T == T
T and F == F	T or F == T
F and T == F	F or T == T
F and F == F	F or F == F

43



Ex

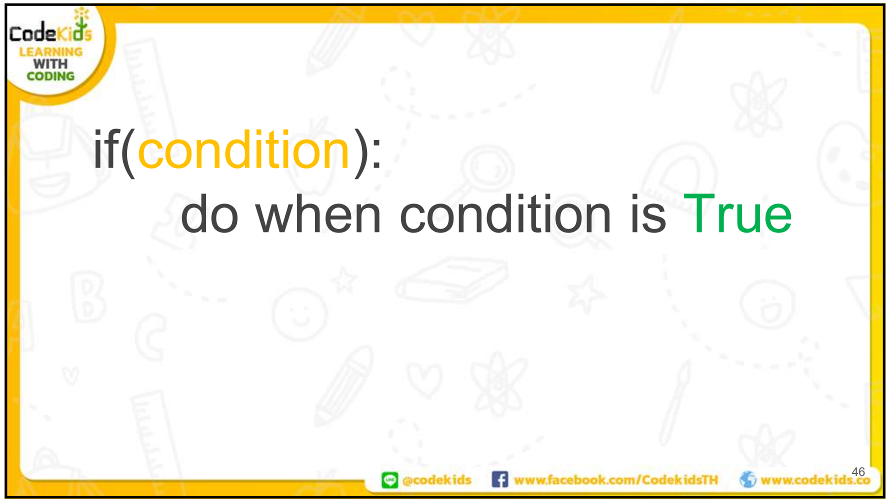
“not” gate

not T == F
not F == T

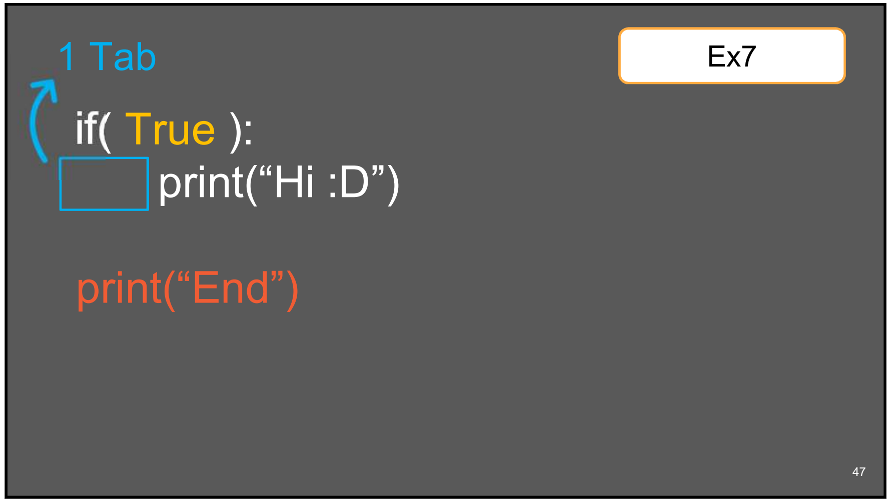
44

Topic :

7. Condition



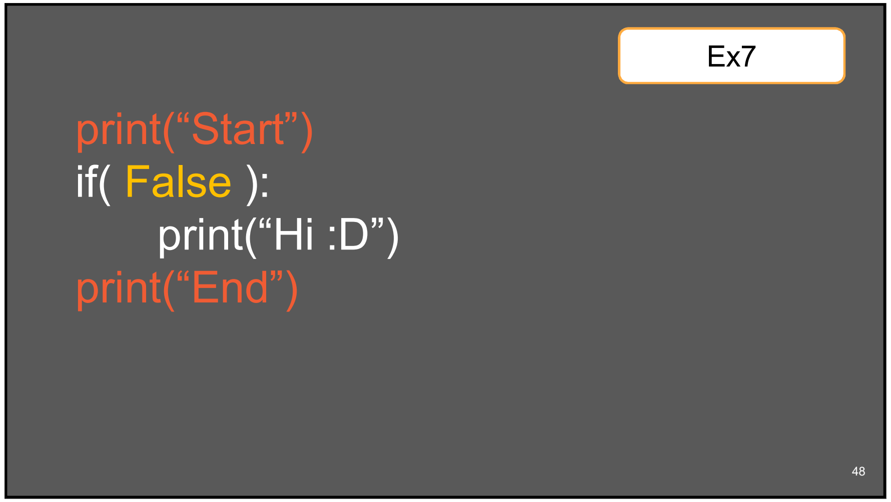
```
if(condition):
    do when condition is True
```



Ex7

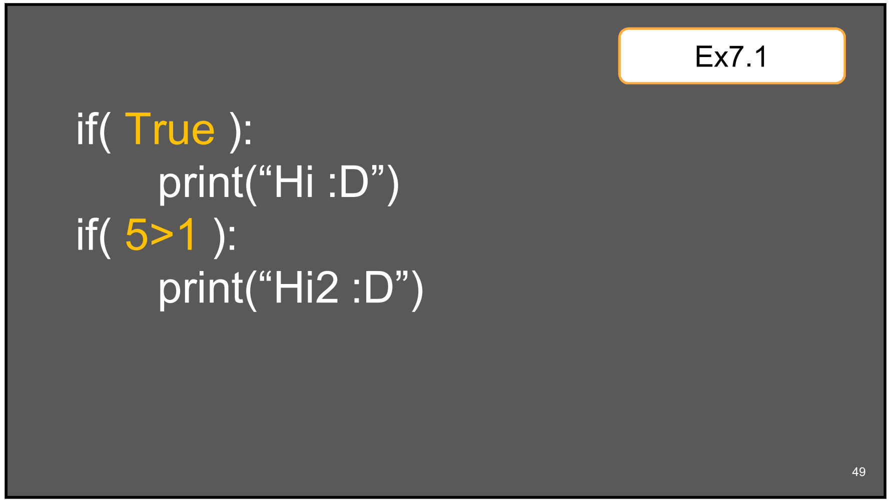
1 Tab

```
if( True ):
    print(“Hi :D”)

print(“End”)
```



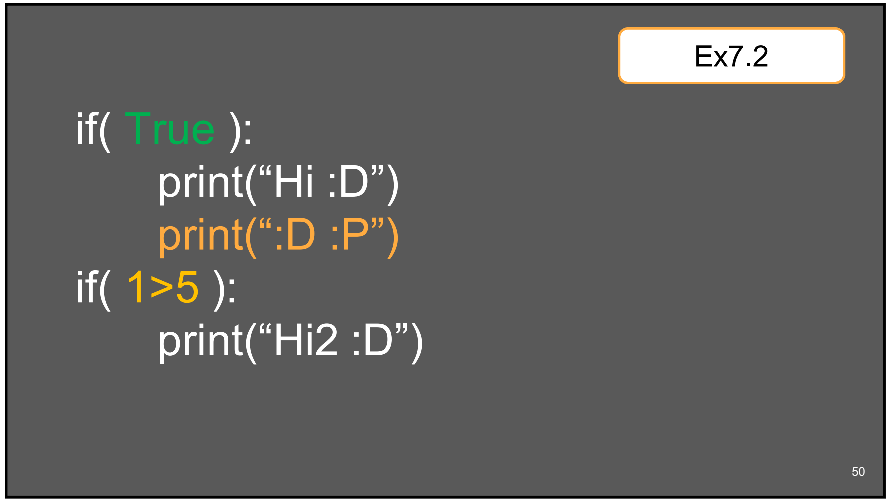
Ex7

```
print(“Start”)
if( False ):
    print(“Hi :D”)
print(“End”)
```



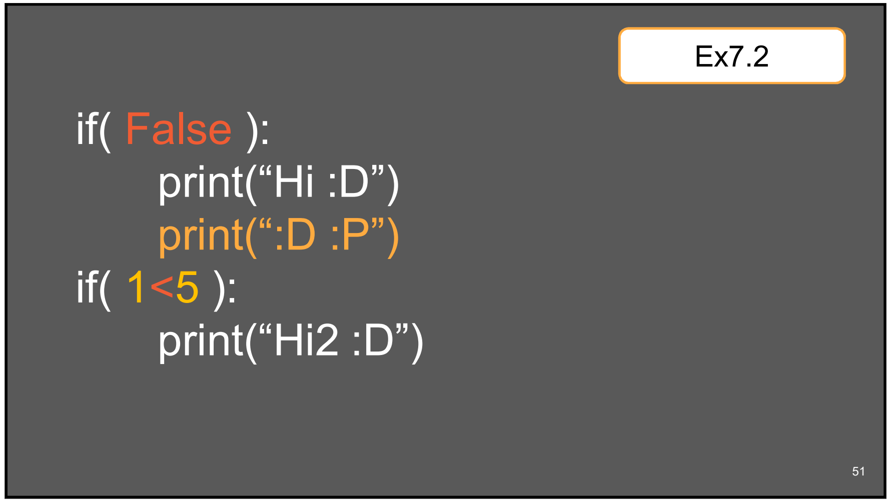
Ex7.1

```
if( True ):
        print(“Hi :D”)
if( 5>1 ):
        print(“Hi2 :D”)
```



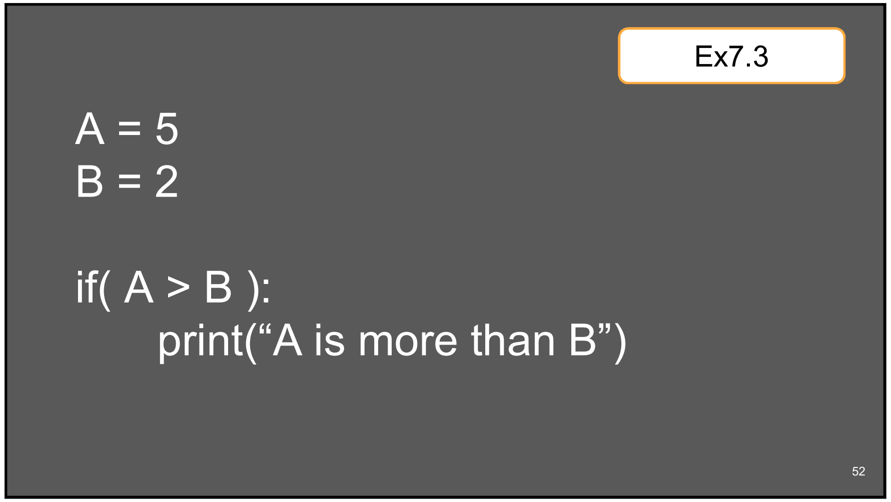
Ex7.2

```
if( True ):
        print(“Hi :D”)
        print(“:D :P”)
if( 1>5 ):
        print(“Hi2 :D”)
```



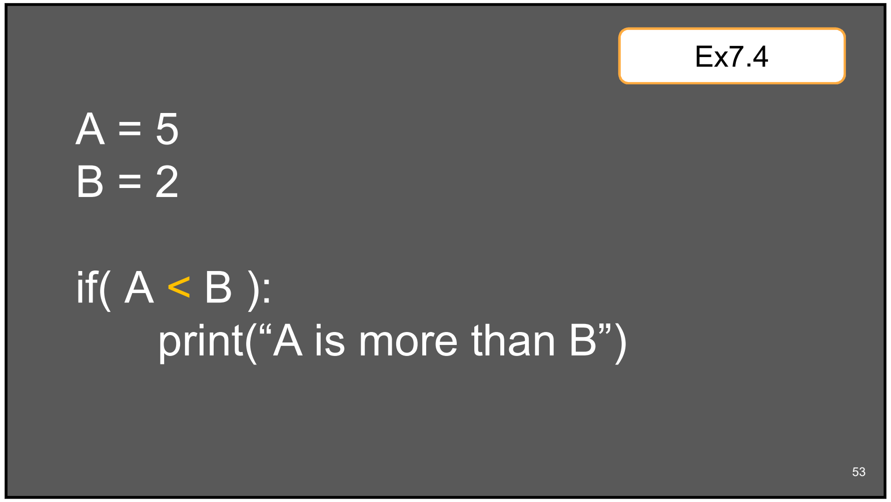
Ex7.2

```
if( False ):
        print(“Hi :D”)
        print(“:D :P”)
if( 1<5 ):
        print(“Hi2 :D”)
```



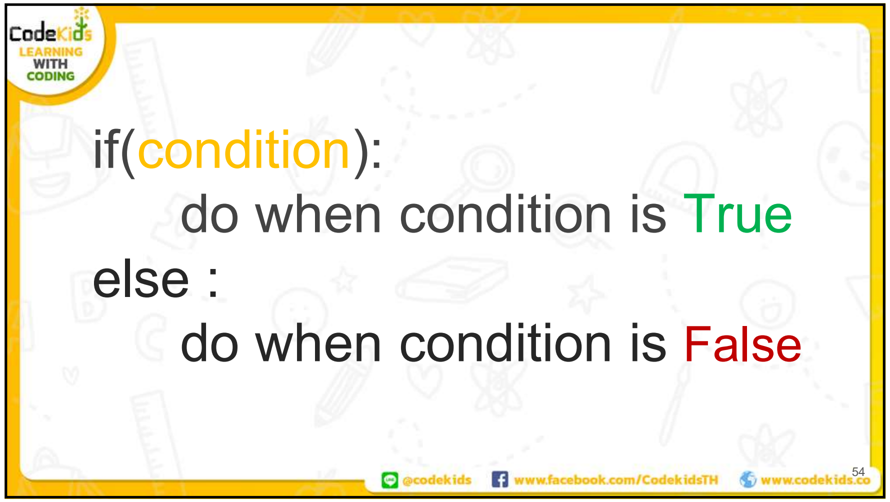
Ex7.3

```
A = 5
B = 2

if( A > B ):
        print(“A is more than B”)
```

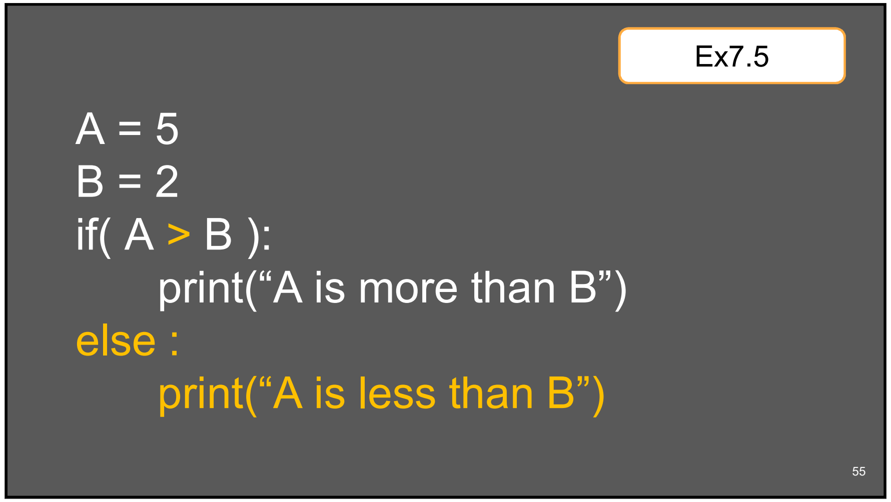


Ex7.4

```
A = 5
B = 2

if( A < B ):
      print(“A is more than B”)
```

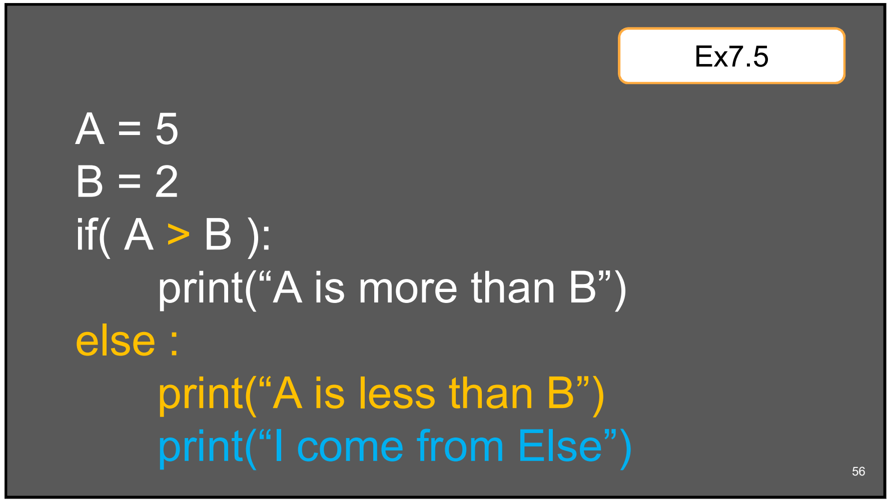


```
if(condition):
      do when condition is True
else :
      do when condition is False
```



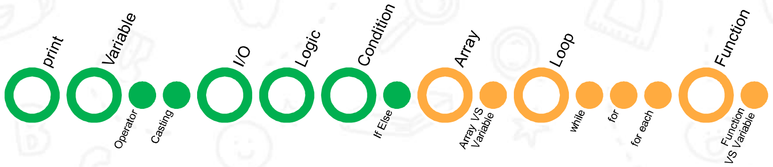
Ex7.5

```
A = 5
B = 2
if( A > B ):
      print(“A is more than B”)
else :
      print(“A is less than B”)
```



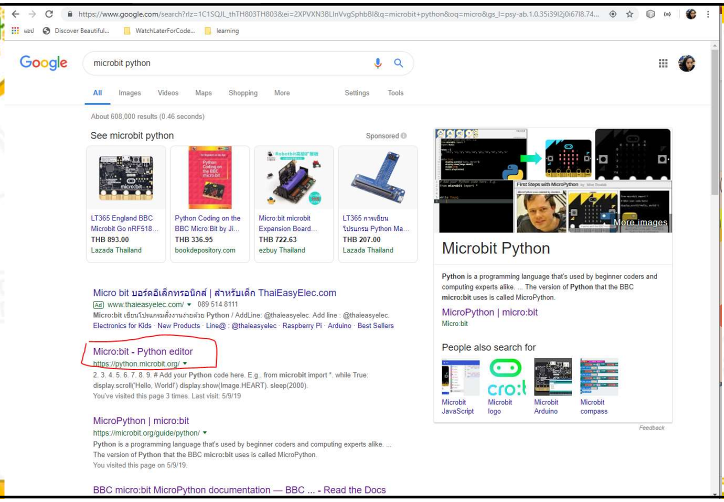
Ex7.5

```
A = 5
B = 2
if( A > B ):
      print(“A is more than B”)
else :
      print(“A is less than B”)
      print(“I come from Else”)
```


print
Variable
Operator
Casting
I/O
Logic
Condition
If Else
Array
Array VS Variable
Loop
while
for
for each
Function
Function VS Variable

Topic :

Play Micro:bit


https://www.google.com/search?rlz=1C1SQJL_thTH803TH803&ei=2XPVXN3BLInVvgSphbBI&q=microbit+python&oq=micro&gs_l=psy-ab.1.0.35i39l2j0i67l8.74...
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Discover Beautiful...
WatchLaterForCode...
learning
Google
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More
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2. 3. 4. 5. 6. 7. 8. 9. # Add your **Python** code here. E.g.. from **microbit** import *. while True: display.scroll('Hello, World!') display.show(Image.HEART). sleep(2000).
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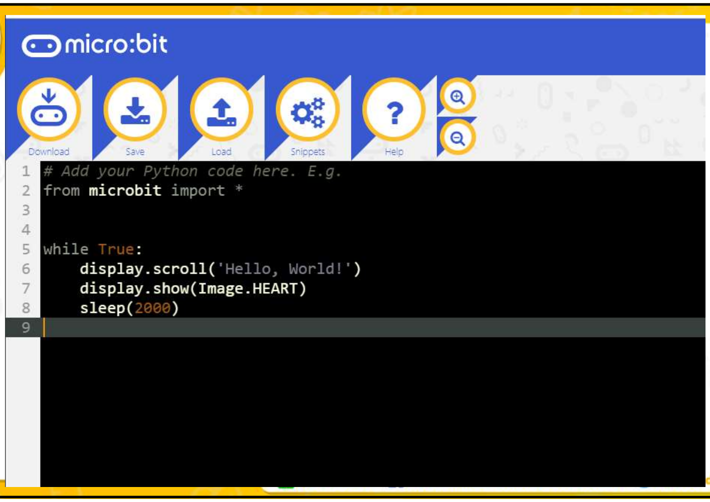
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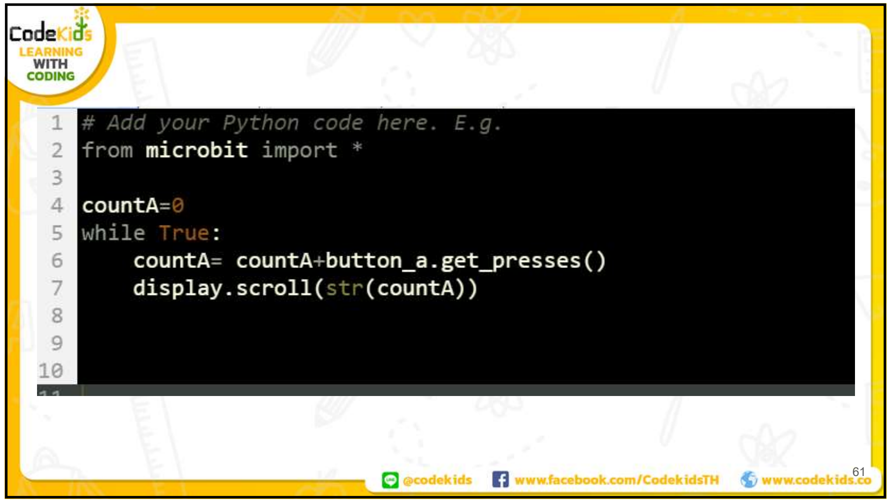
```
# Add your Python code here. E.g.
from microbit import *


while True:
    display.scroll('Hello, World!')
    display.show(Image.HEART)
    sleep(2000)

```



```
# Add your Python code here. E.g.
from microbit import *

countA=0
while True:
    countA= countA+button_a.get_presses()
    display.scroll(str(countA))
```

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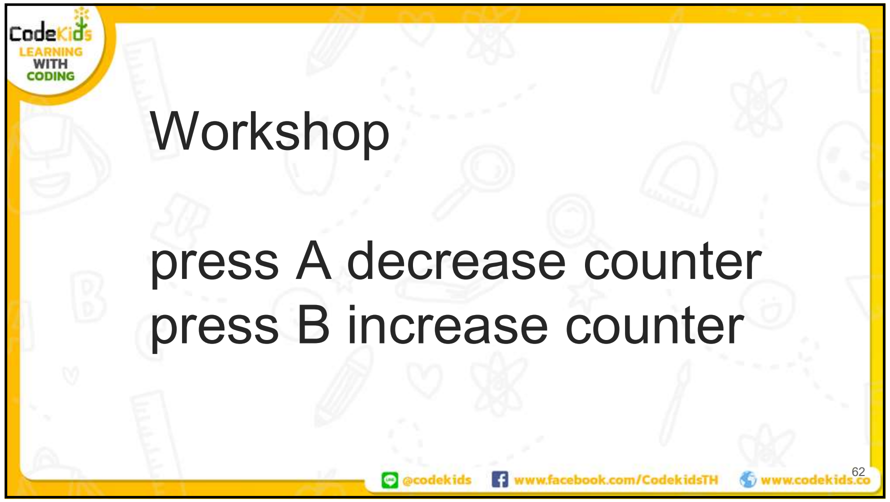

Workshop

press A decrease counter
press B increase counter

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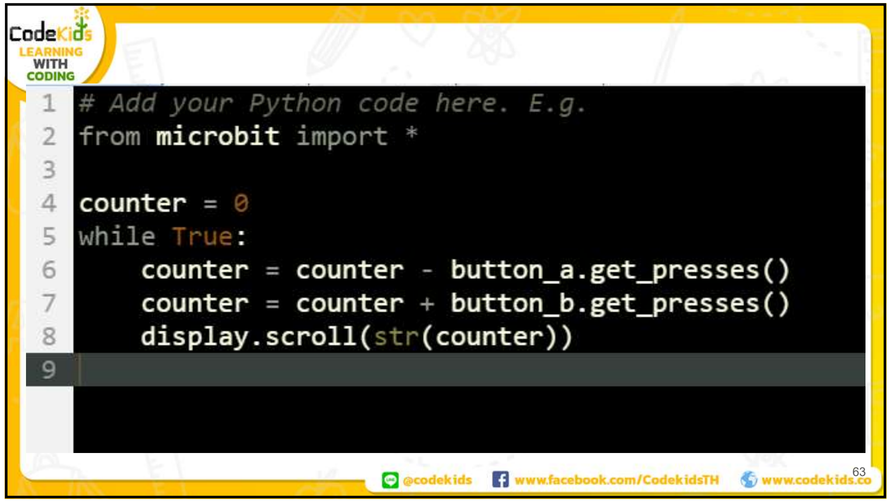

```
# Add your Python code here. E.g.
from microbit import *

counter = 0
while True:
    counter = counter - button_a.get_presses()
    counter = counter + button_b.get_presses()
    display.scroll(str(counter))
```

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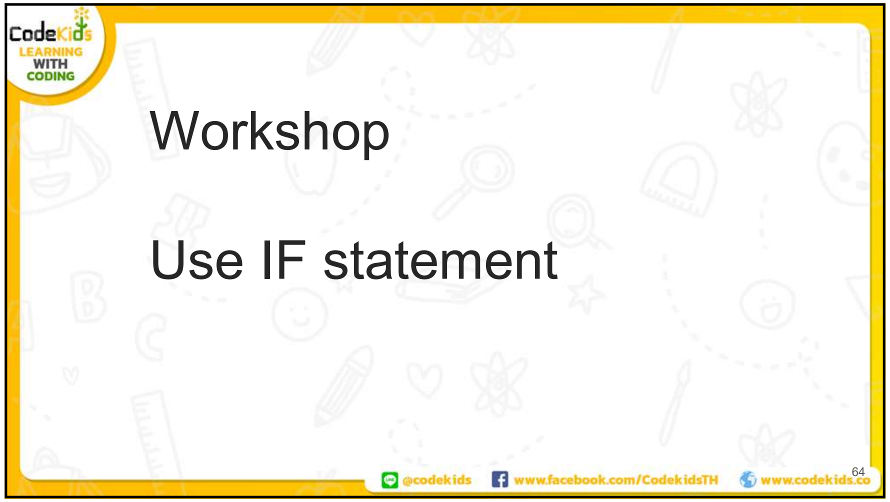

Workshop

Use IF statement

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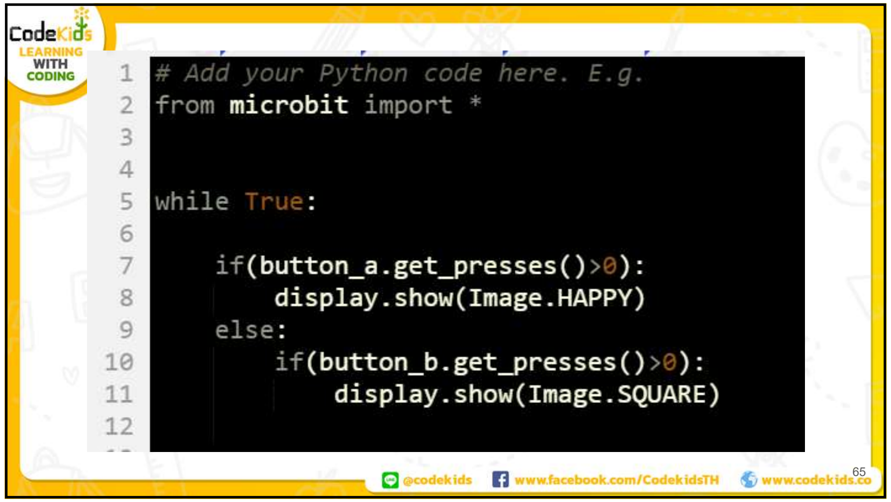

```
# Add your Python code here. E.g.
from microbit import *


while True:

    if(button_a.get_presses()>0):
        display.show(Image.HAPPY)
    else:
        if(button_b.get_presses()>0):
            display.show(Image.SQUARE)

```

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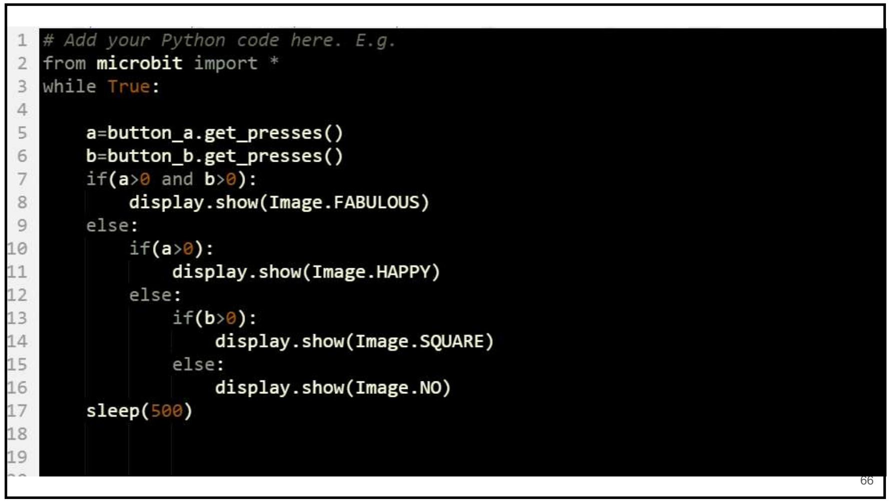

```
# Add your Python code here. E.g.
from microbit import *
while True:

    a=button_a.get_presses()
    b=button_b.get_presses()
    if(a>0 and b>0):
        display.show(Image.FABULOUS)
    else:
        if(a>0):
            display.show(Image.HAPPY)
        else:
            if(b>0):
                display.show(Image.SQUARE)
            else:
                display.show(Image.NO)
    sleep(500)


```

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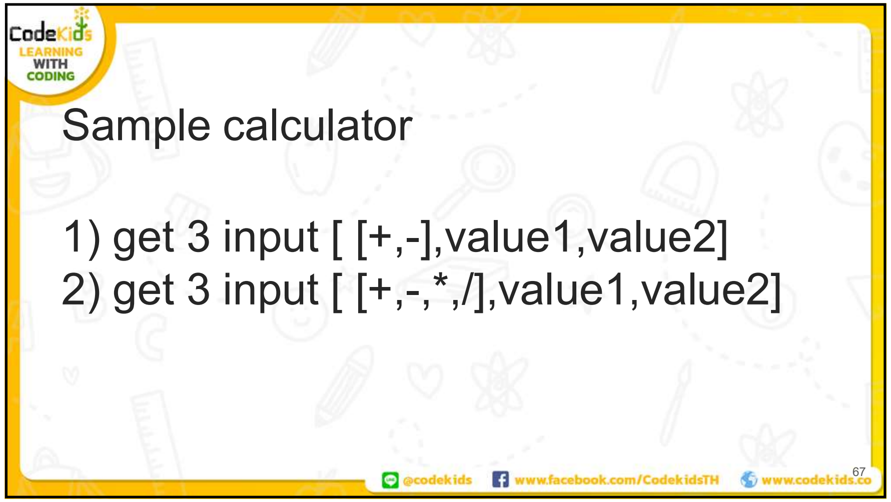

Sample calculator

1) get 3 input [[+,-],value1,value2]
2) get 3 input [[+,-,*,/],value1,value2]

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