SCHOOL OF
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BANGKOK UNIVERSITY

Python Conditional Statement

Nested IF Statements

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01

Nested IF Statements

Nested if statement syntax and examples

Syntax of nested if statement

Syntax

```
if expression :
    if expression :
        statement(s)
```

colon

indent

Nested if statement examples

โจทย์ตัวอย่าง

การเขียนโปรแกรมเพื่อแฟ้นหาคู่ครอง โดยเงื่อนไขกำหนดไว้ว่าคนที่จะมาเป็นคู่ครองจะต้องมีอายุตั้งแต่ 35 ปีขึ้นไป มีสถานะโสด และการเงินอยู่ในระดับรวย

Nested if statement examples

Solution1 (if statement):

Ex.

```
if age > 35 and status == “single” and money == ‘rich’ :
        print(“You are so beautiful and rich.”)
```

Nested if statement examples

If multi-condition solution

```
age = int(input("Enter age : "))
status = input("Enter status : ")
money = input("Enter money level : ")
if age > 35 and status == "single" and money == "rich" :
        print("You are so beautiful and rich.")
```

Nested if statement examples

Solution2 :

Ex.

```
if age > 35 :
    if status == “single” and money == ‘rich’ :
        print(“You are so beautiful and rich.”)
```

Nested if statement examples

Solution3 :

Ex.

```
if age > 35  and status == “single”
    if money == ‘rich’ :
        print(“You are so beautiful and rich.”)
```

Nested if statement examples

Solution4 :

Ex.

```
if age > 35 :
    if status == “Single” :
        if money == ‘rich’ :
            print(“You are so beautiful and rich.”)
```

Nested if statement examples

Solution4 in complete :

```
age = int(input("Enter age : "))
if age > 35 :
    status = input("Enter status : ")
    if status == “single” :
        money = input("Enter money level : ")
        if money == "rich" :
            print("You are so beautiful and rich.")
```

Nested if statement examples

If multi-condition solution

```
age = int(input("Enter age : "))
status = input("Enter status : ")
money = input("Enter money level : ")
if age > 35 and status == "single" and money == "rich" :
        print("You are so beautiful and rich.")
```

Nested if statement examples

โจทย์ตัวอย่าง

การเขียนโปรแกรมนับจำนวนนักศึกษาปี 2565
ที่เป็นเพศหญิงและสังกัดคณะ BU-ITI

Nested if statement examples

Solution1 (if statement) :

Ex.

```
if year == 2565 and sex == “f” and dept == “07” :
        female = female + 1
```

Nested if statement examples

If multi-condition solution

```
year = int(input("Enter year : "))
sex = input("Enter sex : ")
dept = input("Enter department : ")
if year == 2565 and sex == "f" and dept == "07" :
        female = female + 1
```

Nested if statement examples

Solution2 :

Ex.

```
if year == 2565  :
    if sex == “f” and dept == “07” :
        female = female + 1
```

Nested if statement examples

Solution3 :

Ex.

```
if year == 2565 and sex == “f” :
    if dept == “07” :
        female = female + 1
```

Nested if statement examples

Solution4 :

Ex.

```
if year == 2565 :
    if sex == “f” :
        if dept == “07” :
            female = female + 1
```

Nested if statement examples

Solution4 in complete :

```
year = int(input("Enter year : "))
if year == 2565 :
    sex = input("Enter sex : ")
    if sex == "f" :
        dept = input("Enter department : ")
        if dept == "07" :
            female = female + 1
```

Nested if statement examples

If multi-condition solution

```
year = int(input("Enter year : "))
sex = input("Enter sex : ")
dept = input("Enter department : ")
if year == 2565 and sex == "f" and dept == "07" :
        female = female + 1
```

02

Nested if-else Statements

Nested if-else statement syntax and examples

Syntax of nested if-else statement

Syntax

```
if expression :
    statement(s)
    if expression :
        statement(s)
    else :
        statement(s)
else :
    statement(s)
```

colon

colon

indent

Nested if statement examples

โจทย์ตัวอย่าง

การเขียนโปรแกรมเพื่อตรวจสอบตัวเลข 1 จำนวน ว่า

มีสถานะเป็น 0 หรือมีค่าเป็น + หรือมีค่าเป็น -

Nested if-else statement examples

Ex.

```
num = int(input("Enter a number: "))
if num >= 0:
    if num == 0:
        print("Zero")
    else:
        print("Positive number")
else:
    print("Negative number")
```

Solution1 :

Nested if-else statement examples

Ex.

```
num = int(input("Enter a number: "))
if num > -1 :
    if num > 0 :
        print("Positive number")
    else:
        print("Zero")
else:
    print("Negative number")
```

Solution2 :

Nested if-else statement examples

Ex.

```
num = int(input("Enter a number: "))
if num < 0 :
    print("Negative number")
else:
    if num > 0 :
        print("Positive number")
    else:
        print("Zero")
```

Solution3 :

Nested if-else statement examples

Ex.

```
num = int(input("Enter a number: "))
if num < 0 :
    print("Negative number")
elif num > 0 :
    print("Positive number")
else:
    print("Zero")
```

Solution4 :

Find LUCKY NUMBER APPLICATION MISSION

จงเขียนโปรแกรมเพื่อตรวจสอบหาตัวเลขนำโชค ที่มีการกำหนดเลขนำโชคไว้แล้วเบื้องต้น 1 จำนวน และโปรแกรมมีการแจ้งสถานะกรณีที่ผู้ใช้ทายผิดว่าตัวเลขที่ผู้ใช้ กรอกหรือทายเข้ามาว่า มีค่ามากกว่า หรือน้อยกว่า เลขนำโชคที่กำหนด

Find a Lucky Number Application

Code

```
lucky = 50
num = int(input("Enter a number (0-100) : "))
print(num)
if num == lucky :
    print("You got a lucky number.")
elif num > -1 and num < 50 :
    print("Less than a lucky number. Try again.")
elif num > 50 and num < 101 :
    print("Grater than a lucky number. Try again.")
elif num < 0 :
    print("Oops! I got a negative number.")
else :
    print("Out of range. Please try again. Please enter (0-100).")
```

Solution1 :

Find a Lucky Number Application

Code

```
lucky = 50
num = int(input("Enter a number (0-100) : "))
if num >-1 and num < 101 :
    if num > 50 :
        print("Greater than pleas try again.")
    elif num < 50 :
        print("Less than pleas try again.")
    else :
        print("You got a lucky number.")
elif num < 0 :
    print("Oops! I found a negative number.")
else :
    print("The number is out of range. Please enter (0-100).")
```

Solution2 :

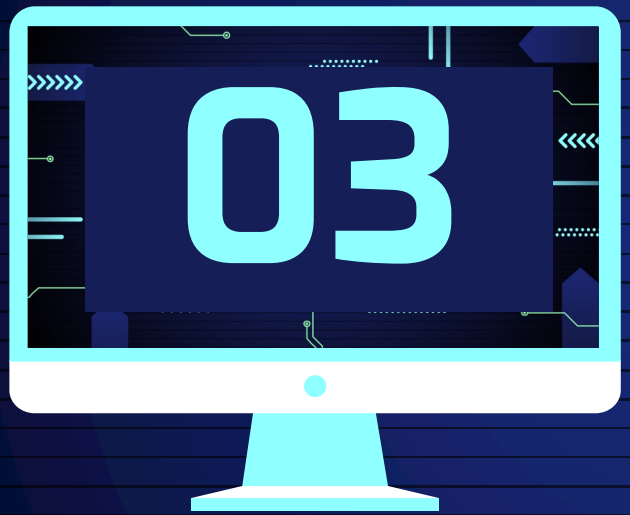
Find a Lucky Number Application

Code

```
lucky = 50
num = int(input("Enter a number (0-100) : "))
if num >=0 and num <= 100 :
    if num == 0 :
        print("You got a lucky number.")
    elif num < 50 :
        print("Less than pleas try again.")
    else :
        print("Greater than pleas try again.")
elif num < 0 :
    print("Oops! I found a negative number.")
else :
    print("The number is out of range. Please enter (0-100).")
```

Solution3 :

Class Activity Week4



USEFUL Python Built in Functions

Python built in functions

upper()

upper() method returns the uppercase string from the given string.

lower()

lower() method returns the lowercase string from the given string.

isdigit()

isdigit() method returns True if all characters in the string are digits.

upper() VS. lower()

upper() method returns the uppercase string from the given string

example

```
name = input("Enter name : ").upper()
print("="*45)
print("Welcome %s "%name)
print("="*45)
```

Output:

```
Enter name : sirinthorn
=============================
Welcome SIRINTHORN
=============================
```

```
name = input("Enter name : ").lower()
print("="*45)
print("Welcome %s "%name)
print("="*45)
```

Output:

```
Enter name : SIRINTHORN
=============================
Welcome sirinthorn
=============================
```

example

lower() method returns the lowercase string from the given string.

isdigit() method

example

```
test = input("Eenter a number : ")
if test.isdigit() :
    num = int(test)
    print(num)
else :
    print("Invalid of digit number format.")
```

isdigit() method returns True if all characters in the string are digits.

Output:

```
Eenter a number : 345h
Invalid of digit number format.
```

output

Homework Week4

Thanks

Any Question?

You can contact me sirinthorn.c@bu.ac.th

Or MS Team Chat