2024 Summer Python Programming Course



**Activity 1**

# Simple printing a string to the console

print("Hello world")

2日間で生徒たちが取り組んだアクティビティです。ご家庭でもぜひ練習してみてください。PythonとPycharmのインストール方法はQRコードを読み取ってください。

**Activity 2**

# understanding types



name = "Ampanman"

age = 10

# Change integer to string

age = str(age)

weight = 20.5

# Change float to string

weight = str(weight)

nationality = 'Japanese'

# concatenation

print("my name is " + name + ".")

print("I am " + age + " years old.")

print("I weigh " + weight + " kgs.")

print("I'm " + nationality + ".")

**Activity 3**

# indexing

x = 'python'

print(x[0])

**Activity 4**

# if else statements

rainy = True

if rainy:

    print('It is rainy today')

else:

    print('It is sunny today')

**Activity 5**

# lists, append, remove, modify by index

shopping\_list = []

print(shopping\_list)

shopping\_list.append('apple')

print(shopping\_list)

**Activity 6**

# while loops and arithmatic

x = 1

while x <= 5:

    print(x)

    x += 1

**Activity 7**

# dice

import random

x = random.randint(1, 6)

print(x)

**Activity 8**

# Basic running program with menu

run = True

while run:

    name = input("Enter name: ")

    print("Welcome, " + name + "!")

    age = input("How old are you?: ")

    print("Thank you. Here's the last question.")

    favourite\_food = input("What's your favorite food?: ")

    print(f"""

I see.

Your name is {name}.

You are {age} years old,

and your favourite food is {favourite\_food}.

""")

    run = False

**Activity 9**

# Fahrenheit to Celsius converter

run = True

while run:

    amount = input("Enter degrees Fahrenheit: ")

    int\_amount = int(amount)

    celsius = ((int\_amount - 30) / 2)

    print(f"{amount} degrees Fahrenheit is {celsius} degrees Celsius")

**Activity 10**

# rock, scissors, paper game

import random

running = True

ai\_choice\_dictionary = {

    1: "rock",

    2: "scissors",

    3: "paper"

}

while running:

    print("""

1. Rock

2. Scissors

3. Paper

""")

    choice = input('> ')

    choice = int(choice)

    ai\_choice\_number = random.randint(1, 3)

    ai\_choice = ai\_choice\_dictionary[ai\_choice\_number]

    print(f"AI chose {ai\_choice}.")

    if choice == ai\_choice\_number:

        print("It's a draw!")

    elif choice == 1 and ai\_choice\_number == 2 or choice == 2 and ai\_choice\_number == 3 or choice == 3 and ai\_choice\_number == 1:

        print("You win")

    else:

        print("You lose")