**Title: First lesson of Python**

**Overview**

As the first lesson of Python, we have two hours (2-4pm) to introduce the students some basic information about Python, including why study Python, and how to use Python.

**Materials:**

Laptop

**Objective:**

Students will:

* Learn usefulness of Python.
* Learn the function “print()” to print different things.
* Identify the different variables including float, integer, and string; and how to utilize the variables.
* Learn how to use different operators.
* Be introduced the concept of conditional statement “if”
* Practice all the knowledge they learn.

**Directions:**

**Step 1: Welcome and self-introduction:** welcome the students, introduce ourselves, and then familiarize them with each other by getting to know their names, their coding background knowledge, etc. (10 min)

**Step 2: a brief introduction to Python:** explain what is Python, what is its advantages, and why we girls need to learn Python. (3 min)

**Step 3: installation:** help the students install Python 3.7. (8 min)

website: <https://www.python.org/downloads/>

**Step 4: “Hello World”:** how to print something on the interpreter, meanwhile learning the basic format of coding. **[practice 1]** (10 min)

**Step 5:** **New line corrector:** teach the students how to change a line using “\n”, as well as 8 spaces created by Tab. **[practice 2 & 3]** (10 min)

**Step 9: Variables:** introduce the concept of variables, including the different types of variables: string, float, int; and also, how to create and display a variable. **[practice 4]** (10 min)

**Step 6: operators:** learning how to use +, -, \*, /, \*\*, %, first use some examples of numbers, then proceed to teach the sentence “I am … I am … years old.” **[practice 5 & 6]** (10 min)

**Step 8:** **rest:** have a rest for 5 min.

**Step 10: user input:** learn how to use the function input(). **[practice 7]** (10 min)

**Step 11: Boolean expressions:** explain the operator “==” and “!=”, giving True or False. (5 min)

**Step 12: Conditional statement:** how to use “if” statement, including “if”, “elif” and “else”. **[practice 8]**  (rest of the class)

**Practice**

1. print(“Hello, World”)
2. print(“Hello,\nYOUR NAME”)
3. print(“\*\*\*\*\t\*\*\*\*\t\*\*\*\*\t\*\*\*\*”)
4. x = 3

print(x)

print(“x”)

y = 2.35

print(y)

1. x = 9

y = 2

print(x+y)

print(x-y)

print(x\*y)

print(x/y)

print(x\*\*y)

print(x%y)

1. my\_name = “YOURNAME”

age = YOURAGE

print(“I am ” + my\_name + “ . “ + “I am” + str(age) + “ years old.”)

1. x = int(input(“Enter name: “))

print(x)

1. Grade:

y=int(input("your score:"))

if y>=90:

print("A")

elif y>=80:

print("B")

elif y>=70:

print("C")

elif y>=60:

print("D")

1. Price of luggage:

x = str(input("country: "))

y = int(input("Weight(kg): "))

if x == "France":

if y<=5:

print("150RMB")

else:

print(y\*200)

elif x =="Italy":

if y<=5:

print("250RMB")

else:

print(y\*250)

elif x =="Germany":

if y<=5:

print("300RMB")

else:

print(y\*600)

1. Book price:

x = int(input("First book price: "))

y = int(input("Second book price: "))

if x+y >=500:

print((x+y)/2)

else:

print(x+y)

**Homework:**

**#The Alien’s Color#**

you are playing a game to kill aliens, and you have just killed one:

1. Create a variable called *alien\_color,* and set it as ‘green’, ‘yellow’, or ‘red’.
2. Created an if statement to see if the alien is green; if it is, then print a message that the player has scored 5 points.
3. Created an if statement to see if the alien is yellow; if it is, then print a message that the player has scored 10 points.
4. Created an if statement to see if the alien is red; if it is, then print a message that the player has scored 15 points.