Using Python

Getting Started

Using a python 3 IDE (Integrated Development Environment)

1. Starting the python IDE
   - Go to repl.it
   - Click on “Search for a language” and select “Python3”

2. Type in the following code:
3. Executing (running) the program instructions:
   - Click “run”
   - Examine the results (output)

4. Deleting the code:
   - Select code
   - Press “delete”
5. Clearing the display (output)
   - Click on “clear”
Coding

Program 1: Learning to display output with the print() function

print("I can use quotes to print text")
print("Text can include characters like a, b, c")
print("Text can also include numbers like 1, 2, 3")
print("To print a numbers or formulas, I don't use quotes")
print(10)
print(5)
print(10 + 5)
print("To print a blank line I use slash n")
print("\n")
print("This prints a blank line after this sentence\n")
print("This is the last sentence")

Output

Program 2: Displaying text and numbers together

print("Text and numbers can be printed together")
print("This is done by using a comma")
print("The sum of 10 + 5 = ", 10 + 5)
print("Here is some text and numbers together", 5 - 2, "more text", 77, "even more text")

Output
Program 3: Using variables

print("This program demonstrates the use of variables.")
print("A variable is used to store a character, number or a string of characters.")
print("Text and string variables are stored using quotes. Numeric variables don't use quotes.")
FirstInitial = "R"
LastInitial = "G"
MyDog = "Luigi"
value1 = 10
value2 = 15
value3 = 2.5
print("\n")
print("To display the information in the variable, we use the name of the variable without quotes")
print(FirstInitial)
print(LastInitial)
print(MyDog)
print(value1)
print(value2)
print(value3)
print(FirstInitial, LastInitial)
print("\n")
print("We can display text and variables together.")
print("Variables do not use quotes and we use a commas for separation.")
print("My dog", MyDog, "is", value1, "years old")

Output
Program 4: User input

print("The input function prompts the user to enter a value for a variable.")
print("The value entered by the user is stored or assigned to the variable.")
print("\n")
name = input("What is your name? ")
age = input("What is your age? ")
print("I now know that", name, "is", age, "years young!")
print("Thank you", name, "!")

Output

Program 5: If statement

print("An 'If' statements checks to see if the condition is true.")
print("If the statement is true, the indented statements will be executed.")
print("\n")
mynumber = input("Enter a number between 1 and 100: ")

# By default mynumber is stored as a character.
# The int() function converts mynumber to an integer
mynumber = int(mynumber)

# Now let's check the value of mynumber
if mynumber == 50:
    print("You chose a number equal to 50.")
if mynumber < 50:
    print("You chose a number less than 50.")
if mynumber > 50:
    print("You chose a number greater than 50.")
if mynumber > 100:
    print("But I said between 1 and 100!")

Output
Program 6: if-else statement

print("An 'If' command checks to see if the condition is true.")
print("If the statement is true, the indented statements will be executed."")
print("If the condition is false, the indented statements following the 'else' command.")
print("\n")
mynumber = input("Enter a number between 1 and 100: ")

# By default mynumber is stored as a character.
# The int() function converts mynumber to an integer
mynumber = int(mynumber)

# Now let's check to see if the value is less than 50
if mynumber < 50:
    print("You chose a number less than 50."")
else:
    print("This number is greater than or equal to 50."")

Output
Program 7: For loop

print("Print Hello everyone! 10 times \n")

for NumberOfTimes in range(0, 10):
    print("Hello everyone!")

Output

Program 8: While loop

temperature = 115
while temperature > 112: # first while loop code
    print(temperature)
    temperature = temperature - 1

print('The tea is cool enough.\')

Output

Program 9: While loop

counter = 1
print("The counter equals", counter)

while counter <= 20:
    print(counter)
    counter = counter + 1

print ('The counter now equals\', counter)

Output