

Institute of Technology of Cambodia



Department of Information and Communication Engineering (GIC)

Assignment2

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Subject : Algorithms and Programming (TD)

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1/ write an algorithm to ask Firstname & lastname from user. Then output.

Var lastname, Firstname, username, underscore, a: Sequence of char.

Begin

write("Enter your first name: ")

read(Firstname)

write("Enter your last name: ")

read(lastname)

stringcopy(underscore, "_")

stringcopy(a, Concat(Firstname, underscore))

stringcopy(username, Concat(a, lastname))

write("The username is", username)

End

2/ write an algorithm to convert an input string

Var input, upper, lower: sequence of character

Begin

write("Enter the string: ")

read(input)

stringcopy(upper, string2uppercase(input))

stringcopy(lower, string2lowercase(input))

write(upper, ", ", lower)

End

3/ write an algorithm to find the length of the input string

Var input : sequence of character

Begin write ("Enter the string :")

read (input)

write ("The length of the word \"", input, "\" is ",
length(input))

End

4/ write the algorithm to display

Var input : sequence of character
a : Integer

Begin write ("Enter the word :")

read (input)

a = Length(input)

write ("In word \"", input, "\", the first character
is \"", input[0], "\" and the last character
is \"", input[a-1], "\"")

End

5/ Suppose we have $a=50$, $b=-50$, then what is the Boolean value of each expression below

answer:

A/ $a > 50$, \Rightarrow True

B/ $b >= 50$, \Rightarrow False

C/ $a == 50$ AND $b == 50$, \Rightarrow False

D/ $a == 50$ OR $b == 50$, \Rightarrow True

E/ $a > 50$ AND $b < 0$, \Rightarrow True

F/ $a < 0$ OR $b < 0$, \Rightarrow True

G/ $a > 0$ AND $b < 0$, \Rightarrow True

H/ $\text{NOT}(\text{NOT}(a > 50) \text{ AND } (a > 0)) \text{ AND } \text{NOT}(b < 0)$, \Rightarrow False

6/ By taking a look at the ASCII code tables, Answer the question below:

answer:

+ The ASCII codes for the letters a, b, c, \dots, z are 97, 98, 99, \dots , 122.

+ The ASCII codes for the letters A, B, C, \dots, Z are 65, 66, 67, \dots , 90.

+ The ASCII codes for the numbers $0, 1, 2, \dots, 9$ are 48, 49, \dots , 57.

+ The ASCII codes for these characters $\acute{e}, \grave{e}, \xi, \acute{E}, \grave{E}$ are 233, 232, 231, 201, 200.