

SIT102 – Introduction to Programming

Answers for 3.1P Hello User

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Question 1: What are the 3 different control flow mechanisms used in structured programming? Describe each in terms of their operation and use.

3 different control flow mechanisms used in structured programming

1: Sequential: default mode

2: Selection: used for decisions, branching
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3: Repetition: used for looping
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Question 2: The computer can perform more complex control flow interactions than those supported by structured programming. Why is it useful to limit the ways we structure the logic within our program's code?

To make sure that it won't produce any errors and to make it more readable.
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Question 3: Describe the Boolean operators **and**, **or**, and **not**.

'and': if both variable 'a' and variable 'b' are equally 'true', the result will be 'true'. If one or both of the variables are 'false', the result will be 'false'.

'or': if both variable 'a' and variable 'b' are equally 'true', the result will be 'true'. If one of the variables are 'false', the result will be 'true' if the other one is 'true'. Else the result will be 'false'.

'not': if variable 'a' is true, then the result will be 'false'. If the variable 'a' is 'false', then the result will be 'true'.

Question 4: Describe the two selection statements in C++

'if' selection: if the target variable is equal to the condition, it will run a program.

'if else' selection: if the target variable is equal to the condition, it will run a program. Else, it will run another program.

Question 5: Describe the two repetition statements covered in the 3.1 Task Videos

'while' loop: while the target variable is not equal to the condition, it will run a program until the variable fulfil the condition.
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'do while' loop: it will run a program and check if the target variable is equal to the condition. If it does not, then it will run the program again until it does.
