

Practical 2 (due 2023-03-03 @ 09:00)

The purpose of this assignment is for you to start using basic selection operations, which include the switch-case, if statements and the conditional operator.

Write a C++ program so that, whenever the program runs, it presents the user with a menu to select one of two options. The program stops after the selected option has finished executing.

Option A:

Ask the user to input the amount remaining battery level for an electric car. Use the following table to output an appropriate message to the user depending on the battery level:

Battery Level (%)	Message
[0 – 15]	Charging required! You may get stuck on the road.
(15 – 35]	Barely enough power remaining. Use the shortest route.
(35 - 75]	There should be enough battery power to last you the entire trip.
(75 – 100]	The battery is sufficiently charged. Happy driving!

Option B:

Ask the user to enter the mark they received for the Semester Test and the total possible marks for the Semester Test. Calculate the mark percentage (%). If the mark is less than 50%, output "You need to invest more time in your schoolwork." Else, output "Keep it up."

Instructions:

Write a C++ application that complies with the following instructions.

1. Make use of at least one switch-case structure.
2. Make use of if-else statement
3. Make use of the conditional operator (?:)
4. User input validation needs to happen. You may exit the application if validation fails. Validation is the process to ensure that if you expected a number, a number was provided by the user, or if you expected a positive number, it was indeed positive.
5. You must complete a design for Option B. A Microsoft Word design template is available on EVE that you can use to complete the design.
6. The submission must include both the Source and Docs directories and the naming convention must follow the standard described in the previous practical exercises.
7. Compare your submission with the mark sheet below to ensure you get marks for the various sections

Important: Student submissions will be tested for similarity. Student submissions that are too similar to each other will receive zero marks.

Mark sheet		
	Code compiles	10
	Main menu with two options	10
	Option A execution	10
	Option B execution	10
	Validation in main menu, Option A and Option B inputs	10
	switch-case statement	10
	if-else statement	10
	Selection operator	10
	Naming of variables, code indentations and comments	10
	Design	10
	Total	/100