DIPLOMA IN INFORMATION TECHNOLOGY

COURSEWORK

Subject : PROGRAMMING CONCEPTS & PROBLEM SOLVING
Subject code : DIT 1253
Due Date : Week 9 (TBC)

NAME	STUDENT ID

INSTRUCTIONS TO CANDIDATES

This assignment will contribute 35% to your final grade.

This is a group assignment (**THREE to FOUR** students in a group).

IMPORTANT

The Sunway Diploma Studies requires students to adhere to submission deadlines for any form of assessment. Penalties are applied in relation to unauthorized late submission of work.

- Coursework submitted after the deadline but within 1 week will be considered as late submission.
- Work handed in following the extension of 1 week after the original deadline will be regarded as a non-submission and marked zero.

Academic Honesty Acknowledgement

"We verify that this paper contains entirely my own work. We have not consulted with any outside person or materials other than what was specified (an interviewee, for example) in the assignment or the syllabus requirements. Further, we have not copied or inadvertently copied ideas, sentences, or paragraphs from another student. we realize the penalties *(refer to the student handbook diploma and undergraduate programme)* for any kind of copying or collaboration on any assignment."

Name	Signature	Date

Group Member Contribution Form

INSTRUCTION

All members must sign the contribution form. **Three (3) marks** will be deducted from the total marks awarded if the group **fail** to comply with this requirement

Group Name: _____

Student Name	Student ID	Signature	Contribution
		Total (100%)	

INSTRUCTION

You are required to complete the question below. Name your C++ program file as GrouName.cpp (for example: Group1.cpp, only one submission per group), filename should be without spaces and not more than 15 characters. You are required to:

- Submit the softcopy of the C++ program file (*.cpp) to Elearn Assignment Submission Link
  Submission link will be available ONE (1) week before the due date.

- Upon submission of the softcopy, you are required to submit the following in a folder:
  i. Cover page
  ii. Marking scheme
  iii. C++ source code (notepad/textpad)
  iv. Sample output
  v. Flowchart or pseudocode

Important: Marks will be deducted for not adhering to the instructions.

Question

CikKoo Comm Ltd. is a newly formed internet service provider in Malaysia. The major goal of CikKoo Com Ltd. is to provide excellent internet service to customers with affordable price. There are two categories of mobile plans available and the details are shown in figure 1.0.

The user (customer) is required to enter the plan type and the speed they are expecting. The program will match the user's requirement with the plans available (figure 1.0), suggest a plan to the user with the total price after 6% SST and ask for verification if the user accept the suggested plan.

If the customer agrees to the suggestion, they are required to key in their personal details (Example: Name, IC) to apply for the subscription. Then the program will end by displaying notification of the subscription is in process.

If the user disagrees to the suggestion, the program should end with an end note. **

Plan Type	Speed	Price	Domestic Voice Call	Quota
Home	30Mps	89	* Free for CikKoo Line	200Mb
	100Mbps	119	* Free	Unlimited
	300Mpps	179	* Free	Unlimited
Business	100Mbps	129	* Free for CikKoo Line	500Mb
	300Mpps	189	* Free	Unlimited
	500Mbps	259	* Free	Unlimited

Figure 1.0

Based on the above case study, you are required to build the internet plan suggestion program for CikKoo Comm Ltd.

NOTES:

1. You are encouraged to improve your code structure by using any additional controls, validations, or messages, which you deem appropriate. **
2. You are allowed to have variances of display design, arrangement or format, as long as it fulfils the requirements stated above.
3. Include internal comments where possible within your code.

Marking Scheme

Criteria	Exceeds Requirements	Meets Minimum Requirements	Requires Revision to Meet Requirements	Marks
	13-15 marks	**10-12 marks**	**0-9 marks**	
Technical Correctness 15%	• No technical, syntax or structure errors • Able to achieve all the anticipated result	• Some technical, syntax or structure errors • Not able to achieve some of the anticipated result	• Many technical, syntax or structure errors • Not able to achieve most or all of the anticipated result	
	9-10 marks	**6-8 marks**	**0-5 marks**	
Problem Solving 10%	• Excellent problem solving logic • Able to cater for all the scenarios.	• Some deficiency in problem solving logic or problem solving logic is not optimum	• Many deficiency in problem solving logic	
	5 marks	**3-4 marks**	**0-2 marks**	
Structure 5%	• Good user-friendliness and tidiness of code • Programming best practices are followed throughout the code.	• Average user-friendliness and tidiness of code • Some programming best practices are not followed.	• Lack of user-friendliness and tidiness of code • Many programming best practices are not followed.	
Comment 5%	• Useful comments to elaborate the meaning of a statement / a block of statements. • Comment place in a proper manner and not overwhelming.	• Contains some comments to elaborate the meaning of a statement / a block of statements. • Comment might not be placed in a proper manner	• Contains little or no comments	
Comments			**TOTAL (35%)**	

End of question paper