

TMF1434 – Data Structure & Algorithms

Assignment – Borneo Hair Salon

1 Introduction

This is a pair assignment and it contributes to 15% of the total grade of this course.

2 Objectives

- To evaluate student's skills at writing an object-oriented program using C++ programming language;
- To apply array-based list data structure in solving the problem.

3 Borneo Hair Salon

The Borneo Hair Salon offers services like hair-cutting, hair-colouring, and hairstyling. They use the best products and latest technology in hairstyling. The Borneo Hair Salon needs a small system to manage the inventory in their salon and to keep track of customer's appointments. They also need to record their weekly and monthly sales.

4 Assignment Requirements

Write a program in C++ to design your solutions for the Borneo Hair Salon. You are encouraged to use your creativity and logical thinking to design your classes in order to increase the reusability and maintainability of your system.

Your program should meet all the requirement as below:

- The class should have at least one (1) *new* attributes, one (1) *new* method and one (1) constructor;
- The class should contain at least one (1) method to *set new value(s)* to the class attributes or to *get/retrieve values* of the attributes;
- Create array(s) with maximum size of 10 to keep the service details that you have created;
- Your system should be able to provide all the functions as listed below continuously based on user selection. The key functions of your program interface are:

Functions	Descriptions
Menu	- Display main menu options
Add details of service	- Ability to add different details service in an array
Delete item service	- Ability to delete existing service details from the array
View All category of service	- Ability to view all the list of service details created in the array(s)
Exit	- Exit from the program

- e) Your program should *operate continuously* until user chooses to terminate the program;
- f) Create at least 5 pre-set data in your program (e.g. different types of service information). Your program should be able to view all service information through “View All” function once your program is executed; and
- g) Submit a report that contains UML class diagram and the screenshot of your program output. Your report *should not* exceed 3 pages (not including front cover).
Report Format: Font Type - Times New Roman; Font Size – 12; Line Spacing- 1.5; and paragraph text arrangement - justified.

5 Submission

- All documents must be submitted via the link provided in eLEAP latest by **13 March 2020 (Friday) by 5.00pm**. Any late submission will get 20% of Assignment mark penalty deduction per day;
- Submit your assignment in a zipped file containing your report (*.pdf) and working C++ source codes (*.cpp). Use the following zipped file naming format for submission:
MatricNo#.zip
E.g: 12345_45625.zip
- Each group is required to submit *only* one copy of group assignment.
- Files submitted with *incorrect format* will *not be entertained*.
- Any plagiarism (similarity between two files more than 50%) will be graded as a zero for the two files.