

**FOUNDATION IN SCIENCE AND TECHNOLOGY**

**COURSEWORK COVER SHEET**

**SUBJECT TITLE : INTRODUCTION TO PROGRAMMING**

**SUBJECT CODE : FSTM3064**

**INTAKE : JULY 2021**

**SEMESTER : 2**

**COURSEWORK TITLE : REVIEW 2 – INDIVIDUAL ASSIGNMENT**

**COURSEWORK** **:** **15%**

The objective of this assessment is:

* To encourage students to think critically about problem solving in programming.
* To apply the knowledge of Java programming.
* To practice good programming techniques.

Learning outcomes:

* To be able to create basic Java applications.
* To be able to use decision marking constructs for problem solving.

Student Name : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student ID : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**INSTRUCTIONS:**

1. Documentation must be submitted as softcopy through eLearn and must include the following:

* Flowchart for each question using MS Visio, draw.io or Lucidchart.
* Codes for each questions.
* Output for each relevant data.

1. Students are required to display good programming practice through their coding style.
2. Students will be required to do a one to one presentation to demonstrate the functionalities of the programs developed from Task 1 – 4.

**ASSIGNMENT DURATION: 29/11/2021 – 23/12/2021**

**Lecturer will check the progress of student’s assignments on 13/12/2021.**

**TASK 1**

A Rotary Club is organizing fund raiser selling take-away lunch sets. Price for an adult lunch set is $20 and price for kids set is $12. Customers can buy more than one adult set and kid set. Side orders can be added on at a separate price which includes $4 for salad and $5 for dessert. Higher marks will be given for program created using JOptionPane.

**TASK 2**

Write a program that asks for the names of three runners and the time, in minutes, it took each of them to finish a race. The program should display the names of the runners in the order that they finished.

You have been asked to develop an application using a switch statement that allows theatre employee to enter a day of the week and then display the cost of a theatre ticket for the day.

Incorporate switch and if..else statement to apply the following conditions in the application.

|  |  |  |
| --- | --- | --- |
| **Day** | **Age** | **Cost** |
| **Monday - Thursday** | Under 10 | Free |
| 10 – 65 | RM10 |
| Over 65 | Free |
| **Friday - Sunday** | Under 10 | RM10 |
| 10 – 65 | RM20 |
| Over 65 | RM10 |

**TASK 3**

**TASK 4**

Write a program that reads an unspecified number of integers, determines how many positive and negative values have been read, and computes the total and average of the input values (not counting zeros). Your program ends with the input 0.