

COMP1202 Winter 2015 (15%) Assignment #2

Due – Sunday, April 5, 2015 (by 11:59 pm)

Team size: Individual or 2 members (choose your own team member)

Purpose:

In Visual Studio 2012, using C#, develop an application to collect data and display statistics for various science centres.

Outcomes:

Create a user-friendly, object-oriented console application using Visual C# 2012.

Problem statement:

Display a suitable name for your application along with the <last name>, <first name> of the team members.

The application must collect data for different science centres.

For each centre, the user must enter the following data:

- Name of the centre
- City the science centre is located in.
- One-day ticket price per adult for this science centre. Children of all ages can visit the science centre for free.

- For each day/date of this science centre:
 - o number of one-day adults who visited the centre
 - o total revenue for that day → this should be calculated by the application.

For each science centre, data is collected for one or more days. Any comparison for reporting purpose, is made across multiple dates of the same science centre.

Validations must be performed for any data entered by the user:

- name of the centre cannot be blank.
- price for adult visitor cannot be less than \$25.00 and more than \$45.00.
- date must be valid (pre-defined C# class for e.g. DateTime class can be used); a future date is not valid
- visitors can be zero or more.

Your application must display a well-formatted statistical report to the user. The following details must be shown in the report:

- science centre name and city
- date and number of visitors for the:
 - least one-day visits by adults
 - highest total revenue collected along with the amount.

The user must be allowed to enter data for as many centres he/she wishes to.

Also add an additional feature to enhance the functionality of your application.

Important guidelines:

- The project name must have the pattern as **1202W15As2_<First name of member 1>_< First name of member 2>**.
- **At the beginning of every program, use appropriate comment entries to signify the course code, student ID, last name and first name for each member.**
- The application must be an **object-oriented** solution. Use at least **two classes** i.e.
 - a. one class with data members, constructors, properties, class methods.**
 - b. another class in a separate .cs file to run/test the application.**
- Use appropriate naming conventions for variables, constructors, properties, methods and arrays.
- **If 2 or more assignments are the same (or very much alike) they will all get 0 marks, so be cautious not to share your application/code with others.**

Mode of submission:

All required files must be uploaded to Blackboard (as a .zip file of the entire project folder).

It is recommended that you keep a backup of the same version of your assignment (with valid date and time stamp) that you have submitted.

Evaluation:

- **Individual OR Based on the individual student's contribution to the team → i.e. each team member will be evaluated on the basis of logic and code developed by him/her.**
- **Every student/team must give a demo of their work.**

No Late assignments will be accepted. Exceptions, if any, may be made at the discretion of the professor.

Good Luck!