**Description**

Create a new program called “**A1-ContactList**”.

This program will create a formatted output file called “**A1-ContactList.out**” from data hard-coded in the program.

The output will report the name, email address and phone number of yourself and at least two other students.

**Specification**

* Collect contact data from two other students in the class
* Plan working-storage variables to properly store, and file variables to output the contact data
  1. Determine the size of the text in the heading
  2. Determine the maximum field sizes needed to store   
     the Name, Email and PhoneNumber contact data
  3. Determine the overall record size for the output file
  4. Use the overall record size on both the record contains clause of the file and the 01 level record
  5. Make sure that the heading and detail 01 level variables are the same size as the overall record size
* Use one 01 level variable in working-storage for the heading
  1. The 01 level variable will need to be subdivided into several 05 level variables so as to control the spacing left and right of the heading text and align it over the contact data
  2. The text for the heading should be stored in one of the 05 working-storage variables of the heading 01 level variable and be initialized with a VALUE clause that contains the string for the heading text
  3. The spaces can be 05 FILLER working-storage variables of the appropriate size to align the heading text and be initialized using the VALUE SPACES clause
* Use one 01 level variable in working-storage for a contact (detail line)
  1. The 01 level variable should be subdivided into several 05 level variables for the different parts of the contact information   
     – Name, Email, PhoneNumber
  2. In the Procedure Division,   
     For each contact,   
     move the string values for Name, Email, PhoneNumber   
     to the 05 level working-storage variables before the contact (detail line) is output to the file
* Sequence of the output to the file
  1. blank line
  2. heading line
  3. blank line
  4. first contact data
  5. second contact data
  6. third contact data

Your output file output should look something like this but with your contact information:

MAFD 4202 Contact List

Gregory Oakes Gregory.Oakes@durhamcollege.ca 905-321-1234

Mary Bell mary.bell@dcmail.com 416-773-2342

Ed Bigalo ed.bigalo@dcmail.com 289-230-1231

**Submission Requirements**

Turn in a zip or 7z archive containing the Visual Studio (VS) project and solution files to the drop box in your DC Connect Lab Section

**Marking**

**1** mark for heading stored in working-storage

**3** marks – 1 mark for each contact moved to working-storage

**6** marks – 1 mark for each line written to output file

**1** mark for output columns aligned and heading centered

**1** mark for complete VS project submission in zip or 7z file  
**1** mark for correct program name

**1** mark for correct output file name

**Total 14 marks**