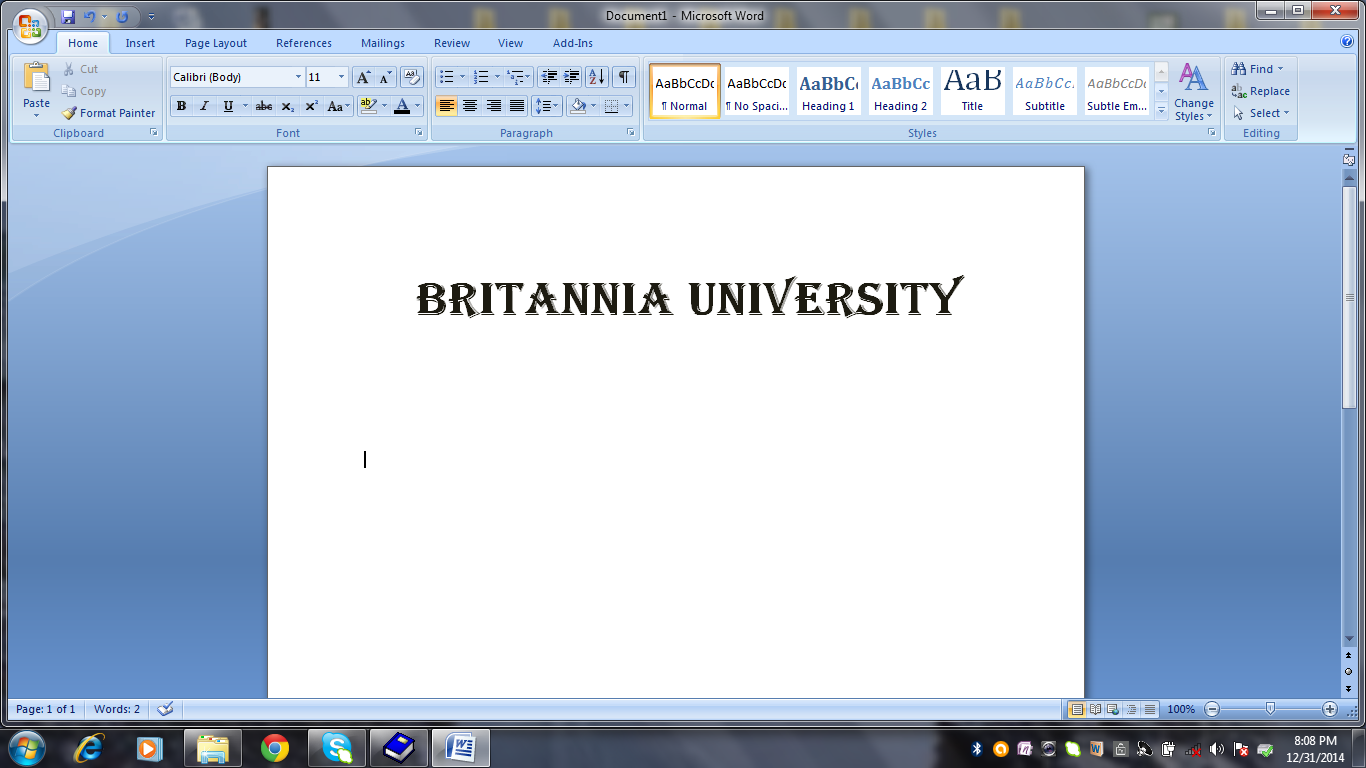


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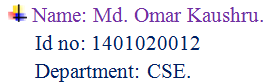
* **Lab report on:**

1. A C++ program to find the best equation for fitting straight line.



Date of Submission: 27-04-2016

Submitted by:

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* A C++ program to find the best equation for fitting straight line.

#include <iostream>

**using** **namespace** std**;**

**int** main**()**

**{**

**float** a**[**20**][**10**],**sum**=**0**,**a0**,**a1**,**del**,**dela0**,**dela1**;**

**int** i**,**j**,**k**,**n**;**

cin**>>**n**;**

cout**<<"Enter x y w :"<<**endl**;**

**for(**i**=**0**;** i**<**n**;** i**++)**

cin**>>**a**[**i**][**0**]>>**a**[**i**][**1**]>>**a**[**i**][**2**];**

**for(**j**=**0**;** j**<**n**;**j**++)**

**{**

a**[**j**][**3**]=**a**[**j**][**1**]\***a**[**j**][**2**];**

a**[**j**][**4**]=**a**[**j**][**0**]\***a**[**j**][**0**];**

a**[**j**][**5**]=**a**[**j**][**2**]\***a**[**j**][**0**]\***a**[**j**][**0**];**

a**[**j**][**6**]=**a**[**j**][**2**]\***a**[**j**][**0**];**

a**[**j**][**7**]=**a**[**j**][**2**]\***a**[**j**][**0**]\***a**[**j**][**1**];**

**}**

k**=**0**;**

**for(**i**=**0**;** i**<=**7**;** i**++)**

**{**

sum**=**0**;**

**for(**j**=**0**;** j**<**n**;** j**++)**

**{**

sum**=**sum**+**a**[**j**][**i**];**

**}**

a**[**n**][**k**]=**sum**;**

k**++;**

**}**

cout**<<"\n\n \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<**endl**;**

cout**<<" x y w wy x^2 wx^2 wx wxy"<<**endl**;**

cout**<<" \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<**endl**;**

**for(**i**=**0**;** i**<=**n**;** i**++)**

**{**

cout**<<" ";**

**if(**i**==**n**)**

cout**<<"\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<**endl**<<"Summation: ";**

**for(**j**=**0**;** j**<=**7**;** j**++)**

**{**

cout**<<**a**[**i**][**j**]<<" ";**

**}**

cout**<<**endl**;**

**}**

cout**<<" \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"<<**endl**;**

del**=(**a**[**n**][**2**]\***a**[**n**][**5**])-(**a**[**n**][**6**]\***a**[**n**][**6**]);**

dela0**=(**a**[**n**][**3**]\***a**[**n**][**5**])-(**a**[**n**][**7**]\***a**[**n**][**6**]);**

dela1**=(**a**[**n**][**7**]\***a**[**n**][**2**])-(**a**[**n**][**3**]\***a**[**n**][**6**]);**

a0**=**dela0**/**del**;**

a1**=**dela1**/**del**;**

cout**<<"\n Required equation for fitting straight line: ";**

cout**<<" y= "<<**a0**<<" + x("<<**a1**<<")";**

cout**<<"\n\n";**

**return** 0**;**

**}**

**Sample input/output:**

