

Honors Computer Science C++

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Program 2A, & 2G

Program 2A Comments And Output (15 points)

Write a program that uses comments in the source code to list the name of the author of the program (you). We also want to use cout statements to display the name of the author of the program when we “run” the program.

Save the program as **LastNameFirstNameP2A.cpp** in your “S:” directory. To see a model for this program look at the source code for the program “HelloWorldJava.cpp” in the network directory titled: “HonorsCompSciCFiles”. Look in the folder, “Hello World” and then the folder named “Hello World Better”. If the “My Computer” icon is not on your desktop, you can access these programs from Borland C++. Use the File Menu / Open, and then choose the “X:” network shortcut to find the file in the folders listed above.

Use comments at the beginning of the program and use cout statements to display your output. Include your Name, School I.D. Number, Program Number, Program Name, Honors Computer Science, Period Number, Starting Date, Due Date, and a description of the program in the comment section. **Format your comments to follow the example shown below in step #1.**

As you type all your programs this year, be sure not to type past the 80-column line in Borland C++ 5.02 for Windows. If you have any statements longer than 80 columns, press the return key to “wrap” the statement around to the next line.

1. Type comments at the beginning of the program to display your name and other information as listed below. **Do NOT use the tab key in your comments; you must use the space bar to separate each item in your comments.**

```

//*****
//*
//* Your Name Here           Your I.D. Number Here           *
//*
//* Program 2A Comments and Output                            *
//*
//* Honors Computer Science Period ?                          *
//*
//* Starting Date: 9/?/????           Due Date: 9/?/????     *
//*
//* This program will identify the author of the program      *
//* through the use of comments. It will also identify        *
//* the author through the use of cout statements in the output.*
//*****
```

2. Leave a blank line after the comments listed above and then type the preprocessor directives (leave a space between the word include and the library name):

```
#include <iostream.h> //necessary for cout and cin
#include <conio.h> //necessary for getch()
```

3. Leave a blank line after the preprocessor directives and type a comment line using **equal signs** to separate all of the above from the **int main ()** function. For example:

```
//=====
```

4. Leave a blank line after the comment line and then type the **int main ()** function.
5. Type a left curly bracket on the line below **int main ()** in column 1.
6. Leave a blank line after the left curly bracket before typing any cout statements.
7. Type your cout statements necessary to generate the output as illustrated below. **Every command or statement between the left curly bracket (in step #5) and the closing right curly bracket (in step 11) needs to be indented 3 spaces from the left margin of the text editor.** Do NOT use the tab key to indent the command 3 spaces, press the space bar 3 times. Also, do not use the tab key when formatting your output, use the spacebar instead, otherwise the output will not "line up". And yes, the asterisks are required!

```
*****
*
* Your Name          Your ID Number          *
*
* Program 2A  Comments and Output          *
*
* Honors Computer Science Period ?          *
*
*****
```

Press any key to continue....

8. Type the following commands:

```
cout<<endl<<endl<<endl;
cout << "Press any key to continue... ";
```

9. Type the command:

```
getch( );
```

10. Type the command:

```
return 0;
```

11. Type a right curly bracket on the line below **return 0** in column 1.
12. After the last line of code in every program (the right curly bracket in this program) end your program with two comment lines of equal signs. This signifies the end of your source code. For Example:

```
//=====
//=====
```

Use this program as a “template” for all future programs. **Include this style of comments and output for every program throughout the class.**

When you are finished with your program, have tested it thoroughly to make sure that your program is correct, and are sure that you don’t need to make any changes, then save your program in the “W” network mapping, and the Program 2A folder.

Program 2G Graphics Initials (15 points)

Write a graphics program using the commands moveto and lineto to draw your first and last initials using straight-line segments. (Any letters that have curves in them should be drawn using straight-line segments.) Try to center your initials horizontally and vertically on the screen.

As you type all your programs this year, be sure not to type past the 80-column line in Borland C++ 5.02 for Windows. If you have any statements longer than 80 columns, press the return key to “wrap” the statement around to the next line.

1. Open a file named “GraphicsTemplate.cpp” in the network directory titled: “HonorsCompSciCFiles”. Look in the folder named “Graphics”. If the “My Computer” icon is not on your desktop, you can access these programs from Borland C++. Use the File Menu / Open, and then choose the “X:” network shortcut to find the file in the folders listed above.
2. Save the template using the filename LastNameFirstNameP2G.cpp **in your “S:” directory.**
3. Go to the following lecture notes page on my website:
http://www.clausentech.com/lchs/dclausen/cs_cpp_hnr/lectures.htm
 Look for notes titled: “**Creating A Graphics Project with Borland C++ 5.02**”. Read the directions and create a graphics project as described in the directions.
4. Make sure the project is saved in your “S:” directory and name the project your ID number and P2G, for example 9999P2G.ide. **The name of this project cannot be longer than 8 characters long to the left of the .ide or**

the left side of the .exe.

5. Type comments at the beginning of the program to display your name and other information just like those used for program 2A. **Make sure to change the program name and program description in these comments, so that the program number, name, and description say what is listed above.**
6. Every command or statement between the left curly bracket and the closing right curly bracket in the **int main ()** function needs to be indented 3 spaces from the left margin of the text editor. **This is not followed for comments.**
7. After this line in the graphics template: “//Start your graphics commands here” add another comment line of subtractions with the first letter of your first name. For example, if your first name begins with letter “D”, it would look like the following:
//-----D-----
8. Add all of the “moveto” and “lineto” commands to draw your first initial.
9. Add another comment line of subtractions with the first letter of your last name. For example, if your last name begins with letter “C”, it would look like the following:
//-----C-----
10. Add all of the “moveto” and “lineto” commands to draw your last initial.
11. After the last line of code in every program (the right curly bracket in this program) end your program with two comment lines of equal signs. This signifies the end of your source code. For Example:
//=====
//=====

When you are finished with your program, have tested it thoroughly to make sure that your program is correct, and are sure that you don't need to make any changes, then save your program in the “W” network mapping, and the Program 2G folder.