Project 5 Overview

- Run the sample solution

  /home/work/cpe112/Executables/Project_05/Project_05_solution
  - Input files in P5_in.zip are used for input redirection.
  - The input files have different delimiters and phrases.
  - Look at the input files for guidance

- Run the sample solution to obtain
  - The input information order and phrasing
  - The output phrasing, order and format

Project 5 Overview - continued

- **Read the rest of these slides**
- **Read the project description and help document**
- **Once the program is written and tested run the comparison script**

/home/work/cpe112data/Project_05/CompareSolution.bash Project_05.cpp
(where Project_05.cpp represents the name of your source code program)

  - Use this output to fix any differences that may exist between the sample solution and your solution

Project 5 Overview - continued

- Write a C++ program that reads information to parse 2 lines
  - Read a start delimiter for each line
  - Read an end delimiter for each line
  - Read the lines (using the getline function) to parse
  - Run the sample solution to see the input order of these values
- Parse the lines using the delimiters specified.
- Start and end delimiters are used to mark text to be extracted.
  - **Full delimiter names must be used for the parsing.**
  - Perform the parsing on the string variables that contain the entire line.
  - Use starting character position of the start and end delimiters to determine characters between them
- **Output is to match that of the sample solution**

Project 5 Overview - continued

- Output consists of:
  - A row of 70 dashes '-'
  - An identifying phrase followed by the delimited text of the first line
  - An identifying phrase followed by the delimited text of the second line
  - A row of 70 dashes '-'
  - An identifying phrase followed by number of characters within delimiters
  - An identifying phrase followed by number of characters in the lines
  - An identifying phrase followed by the percent of characters delimited
  - A row of 70 dashes '-'
- **Output is to match that of the sample solution**

Project Constraints

- You may use any C++ programming constructs covered in Chapters 1-4 of your textbook or provided in the project description
- **No Global Variables allowed**
- **The use of arrays and loops is prohibited**

- ***Your goal is to match the output style/format of your program to that produced by the provided sample solution.***

Project Hints

- *Output descriptive phrases are left justified in a field width of 40*

- *Search for the full delimiter name that is entered by the user*

- *Read the entire project description – look at hints on page 3 and read the help file*

Project Hints Continued

- *The line of dashes is 70 dashes long. Use the following code to create it*

```
cout << string(70,'-') << endl;
```

- *For title lines, you can do the following:*

```
string title;
title = "Line 1 Information";
cout << title << endl << string(title.size(),'-') << endl;
```


Project Hints Continued

- Use integer variables for the character counts, but floating point variables for the percent.
- For percent calculation, remember to type cast the integers to floats BEFORE the division.
- Use a constant for the field width of the identifying phrases for easy modifications
- Length (number of characters) of the delimiters can be determined using the size or length function.
- Use simple math with the position of the start delimiter and its length to determine the start of the content line.
- Use start and end delimiter positions to determine the length of the content between the delimiters.

Starting the Program

- Change directories into your Project_05 directory that was created at the end of Project_01

  (cd CPE112_SPR13/Project_05)

  - Download the file P5_in.zip from ANGEL and use the following command to extract the contents: unzip P5_in.zip
  - Read the README.txt file and then run the sample solution

- Open the Project_05.cpp file in your editor of choice and correct your header to reflect program 5 content. Then add in the C++ statements to create project 5.