CIS 121 Sequence Problems

Develop an IPO Chart and C++ code the following problems. Upload the IPO and code files to Blackboard.

Save your files with the convention PS2P1, PS2P2 etc. PS1P1 is Problem set 1, program 1 etc.

1. Allow the user to enter the quantity and unit price (price per item). Compute extended price (quantity x price). Display the extended price.

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| INPUT | PROCCES | OUTPUT |
| Create variables for quantity and unit price as those will be inputed by the user  As well as we will need a variable for the extended price | Calculate the quantity x unitPrice | The extended price will display |

1. Allow the user to enter last name, hours and pay rate. Compute gross pay to be hours x rate. (Note: we are not giving time and a half for over time hours yet!). Display last name and gross pay.

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| INPUT | PROCESS | OUTPUT |
| LastName(string), hoursWorked(float), payrate(float) | Make sure hoursworked and payrate are > 0.  Calculate the Gross Pay by doing;  hoursWorked \* payrate = gross Pay | Display the last name with its gross pay |

1. The user is to enter the length and width of a rectangle. Computer the area (length x width) and the circumference (2 x length + 2 x width). Display the area and circumference.

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| INPUT | PROCESS | OUTPUT |
| Create Int variables for length and width | Disply message to let the user know to enter the numbers of a rectangle   * Area= length \* width * Circumference = 2\*(length + width) | Display the product with a message to the user |

1. Enter last name and credits taken. Tuition is $250 per credit hour. Add a $100 lab fee. Compute total tuition (credits taken x 250 + lab fee). Display last name and tuition.

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| INPUT | PROCESS | OUTPUT |
| Last Name  Credits taken  These are created as variables | Tuition = (creditstaken \* 250) +100 | Display the last name with the total tuition as a message string. |

1. The price of an item and discount percent is entered into the program. Display the discount amount and discounted price of the item. Note: enter the discount percent in decimal form.

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| INPUT | PROCESS | OUTPUT |
| Item price  Discount percent is going to be a double var since it needs to be in decimal form | Calculate the discount amount :   * Discountamount= price \*discountPercent   Calculate discounted price :   * discountedPrice = price – discountAmount | Display the discount amount with the discounted price |