|  |  |
| --- | --- |
| **Application/ Program name:** | CH3\_EX9 |
| **Written by:** | Allen J Myers |

|  |
| --- |
| **Purpose or problem definition:** |
| Linda is starting a new cosmetic and clothing business and would like to  make a net profit of approximately 10% after paying all the expenses, which  include merchandise cost, store rent, employees’ salary, and electricity cost  for the store. She would like to know how much the merchandise should  be marked up so that after paying all the expenses at the end of the year she  gets approximately 10% net profit on the merchandise cost. Note that after  marking up the price of an item she would like to put the item on 15% sale.  Write a program that prompts Linda to enter the total cost of the merchan-  dise, the salary of the employees (including her own salary), the yearly rent,  and the estimated electricity cost. The program then outputs how much the  merchandise should be marked up so that Linda gets the desired profit. |
|  |
| **Program Procedures:** |
| System asks user for input, stores the input, and then uses these assigned values to calculate the amount of markup needed to put items on sale and to still make a net profit of 10%. System takes into account the total costs of the business and uses these values to calculate how much the items should be marked up(in percent) to meet these costs. |
|  |
| **Algorithm/Processing/Conditions:** |
| **Inputs:** |
| Cost of merchandise, Cost of employees’ salaries, Cost of store rent, and Cost of electricity. |
| **Processes:** |
| System takes input values, calculates the merchandise markup for desired profit margin and calculates the percentage required to meet markup; system then outputs these results into terminal. |
| **Outputs:** |
| Merchandise markup to cover a discount, merchandise cost plus discount and a 10% profit, total revenue needed to cover all costs and markup percentage. |
|  |
| **Notes & Restriction:** |
| Please only input integers into program, otherwise system will not read input. |
|  |
| **Comments:** |
| Simple mathematical calculations; although the last part for the percent markup was difficult to work out an equation for. |