Project: SP2019\_PROJECT\_Valeriano

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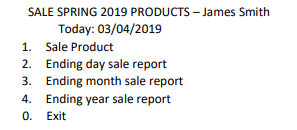
**Summary of Project**

An application that lets employees print a receipt on screen for each sale transaction.

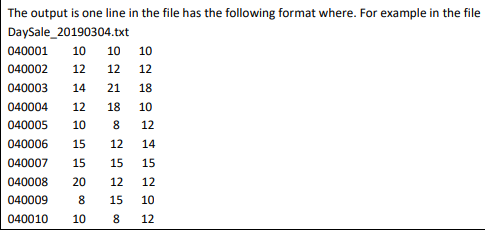
It also allows sales reports to be printed out at the end of a day, month, or year.

**Driver class: SaleSP19Report\_Valeriano**

* Displays a main menu for the user



* Switch on a loop and call methods from data type class
* These methods are located in the driver class:
  + **Sale Product (a transaction is made here)**
    - User is asked for input for the following:
      * How many SP191s to buy?
      * How many SP192s to buy?
      * How many SP193s to buy?
      * How much did the customer pay?
    - The number of units bought is passed to a constructor for a new instance of data class
    - Call calculation methods then the print receipt method
    - Call method to write to the daily output file (for each time Sale Product is called, increase the transaction number by 1)



* + **Ending Day Report (to be run at the end of a day. Gets info from day file made in Sale Product. The day itself is added to a new month file)**
    - Ask users what day to run the report in using this format: mm/dd/yyyy
    - Tokenize string into mm, dd, yyyy and create or look for a file called **daySale\_yyyymmdd.txt**
    - Open that file for reading (use a scanner)
    - Call TokenizeLine for each line and add up # of units sold
    - Close the file
    - With this information, **create a new ProductSP19\_Valeriano object** and pass in the # of each unit sold in constructor
    - Call object’s corresponding DisplayReport method
    - Create a new month file (if it doesn’t exist already) called **monthSale\_yyyymm.txt** and write one line to the file like below:



* + - * Column 1 is the day l
      * Then each column after is the # of respective SP191, 192, and 193 units sold
  + **Ending Month Report (to be called at the end of a month)**
    - Ask users what month to run the report in using this format: mm/yyyy
    - Tokenize input string into mm and yyyy then create or look for a file called **monthSale\_yyyymm.txt** (might be created already in Ending Day Report)
    - Open that file for reading (use a scanner)
    - Call TokenizeLine for each line and add up # of units sold
    - Close the file
    - With this information, **create a new ProductSP19\_Valeriano object** and pass in the # of each unit sold in constructor
    - Call object’s corresponding DisplayReport method
    - Create a new year file If it doesn’t exist already called **yearSale\_yy.txt** and write one line to it like below:



* + - Column 1 is the month and the other 3 are for unit #s sold
  + **Ending Year Report (run from the end of a year)**
    - Ask user for which year to run the report in format of yyyy
    - Create or find file **yearSale\_yyyy.txt** then open it for reading (scanner)
    - Call TokenizeLine for each line and add up # of units sold
    - Close the file
    - With this information, **create a new ProductSP19\_Valeriano object** and pass in the # of each unit sold in constructor
    - Call object’s corresponding DisplayReport method
  + **TokenizeLine (splits a line from a file to get # of units)**
    - Tokenize each line from the file to get…
      * # of SP191 units
      * # of SP192 units
      * # of SP193 units
    - Return an array?

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**Data type class: ProductSP19\_Valeriano**

* Holds information on…
  + # of SP191 units with price of 12.99 each
  + # of SP192 units for 14.99 each
  + # of SP193 units for 15.99 each
* Has methods for…
  + **Constructor**
    - Take in # of units when creating an object of class
  + C**alculating earnings from the SP191s sold**
    - Sale model SP191 = unit price of SP191 \* # of SP191s sold
  + **Calculating earnings from the SP192s sold**
    - Sale model SP192 = unit price of SP192 \* # of SP192s sold
  + **Calculating earnings from the SP193s sold**
    - Sale model SP193 = unit price of SP193 \* # of SP193s sold
  + **Calculate sub total**
    - Sales of 191, 192, and 193 combined
  + **Calculate Tax**
    - Subtotal \* 8.25% (.0825?)
  + **Calculate total**
    - Subtotal + tax
  + **Calculate Balance**
    - The amount the user decides to pay – total
    - Where does the user put in the amount they want to pay?
  + **Write a line to an output file of day**
    - File name example for 03/04/2019 is DaySale\_20190304.txt
    - A line is split into 4 columns for…
      * Transaction # (the day followed by 4 0s… so if date is 4/19 then 190000. Transaction # increased every time Sale Product called)
      * # of SP191 units sold
      * # of SP192 units sold
      * # of SP193 units sold
    - Example:



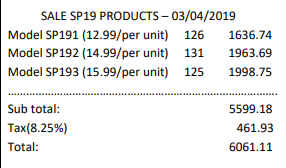
* + **Write a line of output to a file for a month (tracks # of units sold each day in a month)**
    - File name example for March 2019 is MonthSale\_201903.txt
    - 4 columns for…
      * The current day? (from 1 to 31 for March)
      * # of SP191 units sold
      * # of SP192 units sold
      * # of SP193 units sold
    - Example for march 4th:

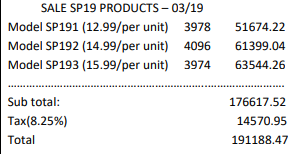


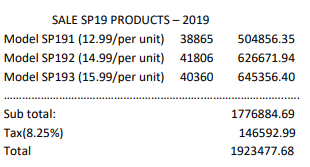
* + **Write line to an output file for a year (tracks # of units sold each month in a year)**
    - File name for year 2019 would be YearSale\_2019.txt
    - 4 columns for…
      * The month (1 to 12)
      * # of SP191 units sold
      * # of SP192 units sold
      * # of SP193 units sold
    - Example for march:



* + **DisplayReport (overrides for month, day, year or switch…)**
    - Outputs one of the following:







* + **Printing out a receipt**
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