**EMPLOYEE MANAGEMENT SYS**

**Problem**

The goal of this project is to create a program capable of recording employees entrance time, departure time and salary.

**Analysis**

**Data Requirements**

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| --- |
| **empClass** |
| **-** employeeArray  - count (Number of Employee)  -employeeNames  -time |
|  |

**Design**

**Algorithm**

The program will create an instance of the empClass, loading any previous data updated by the previous user of the program. Once the object is fully prepared, the user can now choose between the options presented in the menu. If user would like to generate new employee data, the program will prompt the user about the information of the new employee. Then after call a loop to instantiate the class elements for each employee Once the user has finished using the program, the program will store the new array of cars into the car data file, and display the answers then terminate.

1. **Function** Main
   1. Purpose
      1. Starts the program and acts as the menu home page of the program
   2. Subtasks
      1. Create empClassInstance
      2. Display Menu Options
      3. Prompt User Option Choice
      4. Call Option Function
   3. Pseudocode
      1. Main

Instantiate empClass

Ask the user if he wants to generate data for the employees

While the count is less than or equal to 10

Ask for the employee name

Call the countVowel function to get number of vowels

Call the generateArrivalTime function to generate arrive time

Call the generateClosingTime function to generate closing time

Call the generateSalary function to generate employee pay

End while loop

Call the displayTableFuntion to print table

End

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1. **Function** countVowel
   1. Purpose
      1. Count the vowels in emp name
   2. Pseudocode

Deleare a count variable of int type

For each character in the string

If character == 'A', 'E', 'I', 'O', 'U'

Add one to count

Return count

1. **Function** generateArrivalTime
   1. Purpose
      1. Generate a random arrival time
   2. Subtasks
      1. Create a random number for hour between 7-12
      2. Create a random number for mins between 0-60
   3. Pseudocode

Declare the hours and min variable of int type

Generate the random number between 7-12 and store under hours

Generate the random number between 0-60 and store under min

Conver the mins and hour to string values and instantiate (*strHour + “:” strMin)* and save to arriveTime.

Return arriveTime, hours and min

1. **Function** generateClosingTime
   1. Purpose
      1. Generate a random arrival time
   2. Subtasks
      1. Create a random number for hour between 13-21
      2. Create a random number for mins between 0-60
   3. Pseudocode

Declare the hours and min variable of int type

Generate the random number between 13-21 and store under hours

Generate the random number between 0-60 and store under min

Convert the mins and hour to string values and instantiate (*strHour + “:” strMin)* and save to closeTime.

Return closeTime, hours and min

1. **Function** generateSalary
   1. Purpose
      1. Calculate the salary of the employees
   2. Subtasks
      1. Get the number of vowels
      2. Get the number of hours worked
      3. Calculate the salary assuming 750XAF for an hour of work and an extra 250XAF per vowel name
   3. Pseudocode
      1. ReadCarsFile

Declare temporary int variable for salary, hourDiffrent;

Subtract the closing hour from entry hour and save to CalcHr

Subtract the closing min to entry min and save to Calcmins

Divde Calcmins by 60 and save to finMins

Sum finMin and Calc hour and save to finHour

Calculate ((*750\*finHour) + (250\*vowelNum))* and save to salary

Return salary

1. **Function** DisplayCars
   1. Purpose
      1. Display each member stored in the empClass instance
   2. Subtasks
      1. Display each car in the array of dealership instance
   3. Pseudocode
      1. DisplayCars

PrintHeaders ()

For each person in empPrray

PrintEmpInfo(emp)

**Implementation**

Assumptions made

Arrival time must be between 7am and 12am

Closing time is between 1pm and 9pm

The pay is 750 and hour with extra 250XAF bonus per vowel name

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Emp Name | arrive | Close | salary |  |  |
| John | 9:00 | 20:29 | 34033XAF |  |  |