Employee Management System

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# Algorithm

1. Initialize the variables.
   1. This includes the employee, menu selection, and two flow variables to handle the response to user input.
2. Start a loop that will continue until an exit condition is met.
   1. The code can exit when an invalid employee file is opened or when the user selects option 6.
   2. The user has 5 options.
3. Change the employee.
   1. Prompt the user for a new employee file to open.
   2. Load the file and read the employee information.
   3. Change the open employee to reflect the new information.
   4. If there is a problem with the file, exit the program, per instructions.
4. Create a new employee.
   1. Clear all employee information and prompt for a name, city, ID, and starting satisfaction score.
5. Add a score to the employee.
   1. Update the employee object with one more score.
6. Save current employee.
   1. Filename to save will be a text file named with the employee’s name.
   2. Open the file.
   3. Write the name, city, and ID.
   4. Loop through the scores and write them all to the file each on their own line.
7. Print employee info.
   1. Print a table with the name, city, and ID.
   2. Print a table with the min, max, and average of the satisfaction scores.
   3. Print all the individual satisfaction scores.

## Employee

* (Constructor)
  + Set name, city, and ID to empty strings
* (Destructor)
  + No special instructions
* Get Name
  + Get the name of the employee
* Set Name
  + Change the name of the employee
* Get City
  + Get the city where the employee works
* Set City
  + Change the city where the employee works
* Get ID
  + Get the ID of the employee
* Set ID
  + Change the ID of the employee
* Get Scores
  + Get the list of satisfaction scores
* Add Score
  + Add a score to the satisfaction score list
  + Only add it if it is between 1 and 5
* Sort Scores
  + Sort the satisfaction scores in place
* Get Average Score
  + Get the average satisfaction score by summing the scores and dividing by the number of scores
* Get Lowest Score
  + Find the lowest score in the satisfaction scores list
* Get Highest Score
  + Find the highest score in the satisfaction scores list
* Get Number of Scores
  + Get the number of scores in the satisfaction scores list
* Print Employee Info
  + Print a table showing the name, city, and ID
  + Print a table showing the min, max and average of the satisfaction scores
  + Print the list of satisfaction scores

A screenshot of a computer

Description automatically generated

A screenshot of a computer program

Description automatically generated

A screenshot of a computer menu

Description automatically generated

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## Integrity Statements

* I have not shared the source code in my program with anyone other than the pre-approved human sources.
* I have not used source code obtained from another student, or any other unauthorized source, either modified or unmodified.
* If any source code or documentation used in my program was obtained from another source, such as the course textbook or course notes, that has been clearly noted with a proper citation in the comments of my program.
* I have not knowingly designed this program in such a way as to defeat or interfere with the normal operation of any machine it is graded on or to produce apparently correct results when in fact it does not.