12th Week Project

❖ Using File process and GUI, implement **an interactive GUI** to keep track a company that contains a set of employees, each employee works on one department. Each department has number, name, and address. Each department has a list of employees. The GUI should have many forms (or any alternatives):

- Form for inserting department data and store it in a file.
- Form for inserting employee data and store it in a file.
- Form for display each employee information and his/her department. This form should have **previous button**, **next button**, **first button**, and **end button** for getting the previous employee, next employee, first employee, and last employee, respectively.
- Form for searching employee by name or ssn.
- Form for displaying the summation of the salaries of each department.
- Form for displaying each employee lives in Huston city.
- Form for displaying each department and their employees.

❖ You should give a user the ability to switch between forms.

❖ Your forms must restrict the entering data according to the following conditions:

- Department:
  - o name should be characters only.
  - o number should be numbers only.
  - o Location should be a combo box of "Cairo, Alex, Banha"
- Employee
  - o First name, Last name should be characters only.
  - o Minit should be one character.
  - o Ssn should be 9 characters.
  - o Sex should be two radio buttons M for male and F for female.
  - o Salary should be double.
  - o Department Number should be combo box that contains data from the department table.
  - o Birthdate should be calendar.

Employee

First Name	Minit	Last Name	SSN	Birthdate	Address	Sex	Salary	Department Number
John	B	Smith	123456789	1965-01-09	731 Fondren,Houston,TX	M	30000.00	5
Franklin	T	Wong	333445555	1955-12-08	638 Voss,Houston,TX	M	40000.00	5
Joyce	A	English	453453453	1972-07-31	5631 Rice, Houston, TX	F	25000.00	5
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak, Humble	M	38000.00	5
James	E	Borg	888665555	1937-11-10	450 stone,Houston,TX	M	55000.00	1
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry,Bellaire,TX	F	43000.00	4
Ahmed	V	Jabbar	987987987	1969-03-29	980 Dallas, Houston, TX	M	25000.00	5
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle,Spring,TX	F	25000.00	4

Department

Name	Number	Address
Headquarters	1	Cairo
Administration	4	Alex
Research	5	Banha

❖ Your program must have two classes Employee and Department.
❖ Your program should be robust, clear, reusable, documented, attractive and efficient.
❖ You can assume any assumption to enhance your code.

With My Best Wishes

Dr. Wael Zakaria