Lab sheet #3
Functions, Enumerations and structures

Q1) Write a Program that use 2D array of structure to store, update, display bank customers' data:

1. Define a user-defined type for the 2D array of structure using typedef.
2. Define two user-defined enumeration types for the customer's gender and another one for his bank status
3. The structure consists of:
   a. Name(string),
   b. Age(float),
   c. Balance(float),
   d. Gender (male, female),
   e. Status (active, inactive)
4. Define the array max size using a constant (using #define)
5. Make a function to enter information of the customers. Use default arguments to initialize the customer information if the user did not enter the information of a customer.
6. Define an inline function that adds the interest (20%) to the balance when necessary.
7. Make a function named "update" to update the name of a certain bank customer using call by reference for the structure
8. Make a second (overloaded) function named "update" to update any enumeration valued fields of the customer giving the customer a choice for the field (gender/status) and returns the structure with updated data.
9. Make a third function named "update" to update any float valued fields of the customer giving the customer a choice for the field (Age/Balance) and returns the structure with updated data.
10. Define a static local variable (that works as if it is global) in a function and another global. Both report the current size of the array. The static variable is computing number of entered structures

between the calls of the function that enters one structure in each call.

11. Display all information of all the customers using a function that takes the 2D array as input. Display double values using precision, fixed point format and show decimal point.

Program Code: