Computer Science 120
Project No.10 (arrays, text files) **Name ……..**

1. **Given array : string names[10]; and text file "data.txt". Write a program to do the following**

   a. **Copy data from the file into array names**
      Calling statement: copyData("data.txt", names);
   b. **Display array names**
      Calling statement: displayNames(names);
   c. **Sort array names using the "sort" member of <algorithm> library**
      Calling statement: sort(names, names+10);
   d. **Display the sorted form of array names**
      Calling statement: displayNames (names);

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2. **Given array : int a[7]={ 9,11,15, 7, 20, 30, 26}; and the following main() function**

```
int main( )
{
    //display array a
     cout<<"This is the original array a
     displayArray( a ,7 );
    //find the maximum and minimum data in array a
     int max, min;
     findMaxMin( a, 7, max, min);
   //find the average of data in array a
      float average;
      average = findAverage( a, 7);
    //display max, min, and average
      displayMaxMinAve(max, min, average);
    //sort  and display the sorted array a
      sort( a, a+7);
      cout<<"This is the sorted form of array a\n";
      displayArray(a, 7);
    //terminate program
      system("pause");
       return 0;
}
```

Sample I/O

This is the original array a
9 11 15 7 20 30 26
Maximum=30
Minimum=7
Average = 16.86

This is the sorted form of array a
7 9 11 15 20 26 30

Write a program to use this main () and generate the given I/O

3. **Create a class named car that has speed, make, model and yearmade. Create an object of this class (name it your own car). Add a constructor to your class that creates a Toyota Camry 2020 that its speed is 0. Create a loop and speeds up until your car reaches 230 miles per hour. Create another loop and push the break until car stops.**

- **Attributes**
  Speed
  Make
  Model
  Yearmade

- **Functions:**
  Setters and getters for speed make model and year made
  Speedup (adds 10 to your speed)
  Brake (reduces your speed by 10)

  Run your program and make your car speed up and slow down.