Display all items on an empty dataset


```
------------------------
| Main Interactive Menu |
------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 6

----------------------
| Display All Items |
----------------------
No items to display.

------------------------
| Main Interactive Menu |
------------------------
```

Add new item 1 of 3 (business)


```
------------------------
| Main Interactive Menu |
------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 2

-----------------
| Add New Item |
-----------------
Please select an item type:
  1) Business
  2) Park
  3) Public Facility
  4) Back
Choice: 1

----------------------
| Add New Business |
----------------------
Name: Test Business
Type: test
Street Address: test
City: test
State: test
ZIP Code: test
Latitude: test
Longitude: test
Phone Number: test
Business License Fiscal Year: test
Business License Number: test
Business License Issued Date): test
Business License Expiration Date: test
Business License Status: test
Council District: test

------------------------
| Main Interactive Menu |
------------------------
```

Add new item 2 of 3 (park)
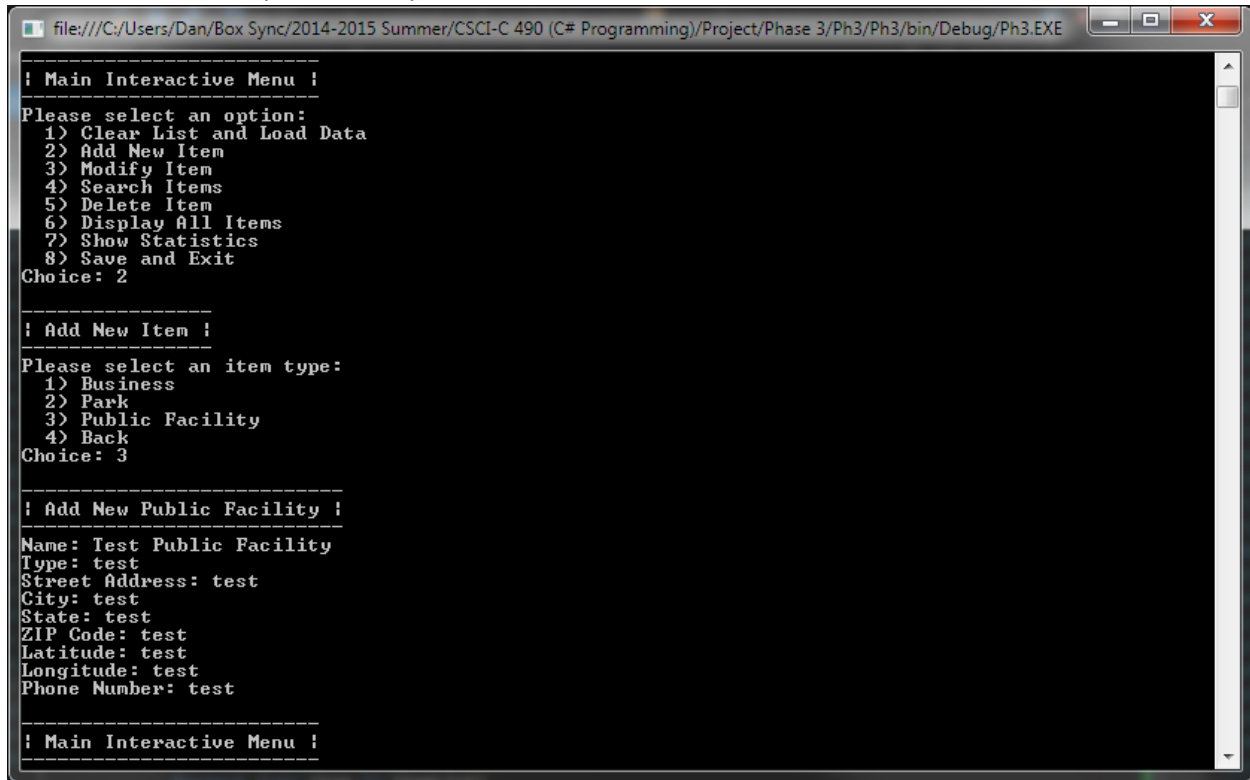


```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

---------------------------
| Main Interactive Menu |
---------------------------
Please select an option:
   1) Clear List and Load Data
   2) Add New Item
   3) Modify Item
   4) Search Items
   5) Delete Item
   6) Display All Items
   7) Show Statistics
   8) Save and Exit
Choice: 2

------------------
| Add New Item |
------------------
Please select an item type:
   1) Business
   2) Park
   3) Public Facility
   4) Back
Choice: 2

------------------
| Add New Park |
------------------
Name: Test Park
Type: test
Street Address: test
City: test
State: test
ZIP Code: test
Latitude: test
Longitude: test
Phone Number: test
# of Baseball Diamonds: test
# of Basketball Courts: test
# of Golf Courses: test
# of Large Multipurpose Fields: test
# of Tennis Courts: test
# of Volleyball Courts: test

---------------------------
| Main Interactive Menu |
---------------------------
```

Add new item 3 of 3 (public facility)


```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

------------------------------
| Main Interactive Menu |
------------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 2

------------------
| Add New Item |
------------------
Please select an item type:
  1) Business
  2) Park
  3) Public Facility
  4) Back
Choice: 3

--------------------------------
| Add New Public Facility |
--------------------------------
Name: Test Public Facility
Type: test
Street Address: test
City: test
State: test
ZIP Code: test
Latitude: test
Longitude: test
Phone Number: test

----------------------------
| Main Interactive Menu |
----------------------------
```

Display all items from a small dataset

```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

-------------------------
| Main Interactive Menu |
-------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 6

----------------------
| Display All Items |
----------------------
 Item ID (Item Type): 1 (business)
Business Name (Type): Test Business (test)
            Address: test, test, test test
    GPS Coordinates: (test, test)
       Phone Number: test
     License Number: 0-0
              Valid: From 0001-01-01 to 0001-01-01
             Status: test
   Council District: test

 Item ID (Item Type): 2 (park)
    Park Name (Type): Test Park (test)
            Address: test, test, test test
    GPS Coordinates: (test, test)
       Phone Number: test
  Baseball Diamonds: 0
  Basketball Courts: 0
       Golf Courses: 0
     Large MP Fields: 0
       Tennis Courts: 0
  Volleyball Courts: 0

 Item ID (Item Type): 3 (publicfacility)
Facility Name (Type): Test Public Facility (test)
            Address: test, test, test test
    GPS Coordinates: (test, test)
       Phone Number: test

-------------------------
| Main Interactive Menu |
-------------------------
```

file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

```
---------------------------
| Main Interactive Menu |
---------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 3

------------------------------------
| Modify Item -- Existing Items |
------------------------------------
   Item ID: 1
Item Type: business
     Name: Test Business

   Item ID: 2
Item Type: park
     Name: Test Park

   Item ID: 3
Item Type: publicfacility
     Name: Test Public Facility

Select item ID (0 to cancel): 1

---------------------------------
| Modify Item -- Chosen Item |
---------------------------------
  Item ID (Item Type): 1 (business)
Business Name (Type): Test Business (test)
             Address: test, test, test test
     GPS Coordinates: (test, test)
        Phone Number: test
      License Number: 0-0
               Valid: From 0001-01-01 to 0001-01-01
              Status: test
     Council District: test

Please select the field you would like to work with:
  1) Name
  2) Type
  3) Street Address
  4) City
  5) State
  6) ZIP Code
  7) Latitude
  8) Longitude
  9) Phone Number
  10) Business License Fiscal Year
  11) Business License Number
  12) Business License Issued Date
  13) Business License Expiration Date
  14) Business License Status
  15) Council District
  16) Back
Choice: 10

Current Business License Fiscal Year: 0
New Business License Fiscal Year: 2001

---------------------------------
| Modify Item -- Chosen Item |
---------------------------------
```

```
------------------------------
| Modify Item -- Chosen Item |
------------------------------
 Item ID (Item Type): 1 (business)
Business Name (Type): Test Business (test)
             Address: test, test, test test
     GPS Coordinates: (test, test)
        Phone Number: test
      License Number: 2001-0
               Valid: From 0001-01-01 to 0001-01-01
              Status: test
     Council District: test

Please select the field you would like to work with:
  1) Name
  2) Type
  3) Street Address
  4) City
  5) State
  6) ZIP Code
  7) Latitude
  8) Longitude
  9) Phone Number
 10) Business License Fiscal Year
 11) Business License Number
 12) Business License Issued Date
 13) Business License Expiration Date
 14) Business License Status
 15) Council District
 16) Back
Choice: 16

------------------------------
| Main Interactive Menu |
------------------------------
```

Clear and Load

```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

-----------------------
| Main Interactive Menu |
-----------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 1

--------------
| Load Files |
--------------
Please select an item type:
  1) Business
  2) Park
  3) Public Facility
  4) Back
Choice: 1

Enter a filename to load: businesses.base.csv
14057 items loaded.

Please select an item type:
  1) Business
  2) Park
  3) Public Facility
  4) Back
Choice: 2

Enter a filename to load: parks.base.csv
62 items loaded.

Please select an item type:
  1) Business
  2) Park
  3) Public Facility
  4) Back
Choice: 3

Enter a filename to load: publicfacilities.base.csv
51 items loaded.

Please select an item type:
  1) Business
  2) Park
  3) Public Facility
  4) Back
Choice: 4

-----------------------
| Main Interactive Menu |
-----------------------
```

Statistics

```
--------------------------
| Main Interactive Menu |
--------------------------
Please select an option:
  1> Clear List and Load Data
  2> Add New Item
  3> Modify Item
  4> Search Items
  5> Delete Item
  6> Display All Items
  7> Show Statistics
  8> Save and Exit
Choice: 7

----------------
| Statistics |
----------------
50 unique types of items found.

adult business: 54
alarm agent: 445
arborist/tree service: 409
automotive repair & svc: 946
block park: 16
busker or sidewalk performer: 13
cemetery: 2
charitable solicitations: 133
community park: 13
donation boxes and containers: 122
fire station: 35
food vending machines: 4
food vending vehicles: 31
golf course: 4
hotel/motel: 195
itinerant restaurant: 20
lawn park 10 or more spaces: 595
lawn park under 10 spaces: 576
library: 13
massage establishment: 102
massage therapy: 205
mechanical license: 10
memorial: 1
neighborhood park: 24
open air vendors private: 98
open air vendors public: 66
outdoor movie theatre: 1
peddler & canvasser: 573
performing animal exhibitions: 1
pet shops: 39
police station: 3
pool halls: 8
precious metal dealers: 96
public parking facility: 149
restaurants a-m: 2927
restaurants n-z: 1888
rubbish & garbage removal: 179
scrap metal /junk dealers: 168
second hand dealers: 292
self service laundry: 99
special: 1
tattoo and body piercing establishments: 3
tattoo and piercing artist: 14
taxi company: 114
taxi driver: 1720
taxi vehicle: 1599
transient merchant: 85
transient merchant xmas tree: 3
vehicle removal: 75
zoo: 1

--------------------------
| Main Interactive Menu |
--------------------------
```

Display All w/ pagination


```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE
-------------------------
! Main Interactive Menu !
-------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 6

---------------------
! Display All Items !
---------------------
 Item ID (Item Type): 1 (business)
Business Name (Type): ARBY'S ROAST BEEF #677 (RESTAURANTS A-M)
             Address: 1807 LINCOLN WAY E, SOUTH BEND, IN 46613-3422
     GPS Coordinates: (41.657927716000074, -86.22006660399995)
        Phone Number: (574) 299-6487
      License Number: 2000-955
               Valid: From 2006-04-18 to 2007-02-28
              Status: Renewed
     Council District:

 Item ID (Item Type): 2 (business)
Business Name (Type): ECONO LODGE (HOTEL/MOTEL)
             Address: 3233 LINCOLN WAY W, SOUTH BEND, IN 46628-1450
     GPS Coordinates: (41.6916193210000076, -86.29479799599994)
        Phone Number: (574) 232-9019
      License Number: 2004-1
               Valid: From 2004-01-20 to 2005-01-31
              Status: Active and Licensed
     Council District:

 Item ID (Item Type): 3 (business)
Business Name (Type): ABC CAB (DON'T USE) (TAXI COMPANY)
             Address: 1733 S MICHIGAN ST, SOUTH BEND, IN 46613
     GPS Coordinates: (41.65644480900005, -86.24989745499994)
        Phone Number: (574) 233-4000
      License Number: 2004-2
               Valid: From 2004-04-22 to 2005-06-01
              Status: Renewed
     Council District: COUNCIL DISTRICT 3

Enter for next item. Space for next page. Ctrl+Enter for all. Esc to abort.
 Item ID (Item Type): 4 (business)
Business Name (Type): BFI WASTE SERVICES (RUBBISH & GARBAGE REMOVAL)
             Address: 1 OUT OF AREA AVE, SOUTH BEND, IN 46601
     GPS Coordinates: (41.67277586800003, -86.25337886399996)
        Phone Number: (574) 522-1331
      License Number: 2004-4
               Valid: From 2004-10-22 to 2005-04-30
              Status: Renewed
     Council District:

 Item ID (Item Type): 5 (business)
Business Name (Type): PETE BUCHANAN (RUBBISH & GARBAGE REMOVAL)
             Address: 1210 BISSELL ST, SOUTH BEND, IN 46617
     GPS Coordinates: (41.68436336600007, -86.23241099899997)
        Phone Number: (574) 282-1588
      License Number: 2004-5
               Valid: From 2004-05-04 to 2005-04-30
              Status: Inactive and no longer licensed
     Council District: COUNCIL DISTRICT 4

 Item ID (Item Type): 6 (business)
Business Name (Type): CLARK TRASH REMOVAL (RUBBISH & GARBAGE REMOVAL)
             Address: 1146 THOMAS ST, ,  46625
     GPS Coordinates: (, )
        Phone Number: (574) 287-8028
      License Number: 2004-6
               Valid: From 2004-05-06 to 2005-04-30
              Status: Renewed
     Council District: COUNCIL DISTRICT 2

Enter for next item. Space for next page. Ctrl+Enter for all. Esc to abort.

-------------------------
! Main Interactive Menu !
-------------------------
```

file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

```
---------------------
| Main Interactive Menu |
---------------------
Please select an option:
   1) Clear List and Load Data
   2) Add New Item
   3) Modify Item
   4) Search Items
   5) Delete Item
   6) Display All Items
   7) Show Statistics
   8) Save and Exit
Choice: 4

-----------------
| Search Items |
-----------------
Please select an item type:
   1) Business
   2) Park
   3) Public Facility
   4) Back
Choice: 1

-----------------------
| Search Businesses |
-----------------------
Please select the field you would like to work with:
   1) Name
   2) Type
   3) Street Address
   4) City
   5) State
   6) ZIP Code
   7) Latitude
   8) Longitude
   9) Phone Number
   10) Business License Fiscal Year
   11) Business License Number
   12) Business License Issued Date
   13) Business License Expiration Date
   14) Business License Status
   15) Council District
   16) Back
Choice: 10

-----------------------------------------------------
| Search Items -- Business License Fiscal Year |
-----------------------------------------------------
What kind of comparator do you wish to use?
   | - contains (default)    >= - greater than or equal to
   !| - does not contain     <= - less than or equal to
   = - equal                 > - greater than
   != - not equal            < - less than
Choice: <

Enter your search text: 2005

-------------------
| Search Results |
-------------------
166 items found.

  Item ID (Item Type): 1 (business)
Business Name (Type): ARBY'S ROAST BEEF #677 (RESTAURANTS A-M)
             Address: 1807 LINCOLN WAY E, SOUTH BEND, IN 46613-3422
     GPS Coordinates: (41.657927716000074, -86.22006660399995)
        Phone Number: (574) 299-6487
      License Number: 2000-955
               Valid: From 2006-04-18 to 2007-02-28
              Status: Renewed
     Council District:

  Item ID (Item Type): 2 (business)
Business Name (Type): ECONO LODGE (HOTEL/MOTEL)
             Address: 3233 LINCOLN WAY W, SOUTH BEND, IN 46628-1450
     GPS Coordinates: (41.691619321000076, -86.29479799599994)
        Phone Number: (574) 232-9019
      License Number: 2004-1
               Valid: From 2004-01-20 to 2005-01-31
              Status: Active and Licensed
     Council District:
```

file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

```
   Item ID (Item Type): 3 (business)
Business Name (Type): ABC CAB (DON'T USE) (TAXI COMPANY)
             Address: 1733 S MICHIGAN ST, SOUTH BEND, IN 46613
     GPS Coordinates: (41.65644480900005, -86.24989745499994)
        Phone Number: (574) 233-4000
      License Number: 2004-2
               Valid: From 2004-04-22 to 2005-06-01
              Status: Renewed
    Council District: COUNCIL DISTRICT 3

Enter for next item. Space for next page. Ctrl+Enter for all. Esc to abort.

   Item ID (Item Type): 4 (business)
Business Name (Type): BFI WASTE SERVICES (RUBBISH & GARBAGE REMOVAL)
             Address: 1 OUT OF AREA AVE, SOUTH BEND, IN 46601
     GPS Coordinates: (41.67277586800003, -86.25337886399996)
        Phone Number: (574) 522-1331
      License Number: 2004-4
               Valid: From 2004-10-22 to 2005-04-30
              Status: Renewed
    Council District:

   Item ID (Item Type): 5 (business)
Business Name (Type): PETE BUCHANAN (RUBBISH & GARBAGE REMOVAL)
             Address: 1210 BISSELL ST, SOUTH BEND, IN 46617
     GPS Coordinates: (41.68436336600007, -86.23241099899997)
        Phone Number: (574) 282-1588
      License Number: 2004-5
               Valid: From 2004-05-04 to 2005-04-30
              Status: Inactive and no longer licensed
    Council District: COUNCIL DISTRICT 4

   Item ID (Item Type): 6 (business)
Business Name (Type): CLARK TRASH REMOVAL (RUBBISH & GARBAGE REMOVAL)
             Address: 1146 THOMAS ST, ,   46625
     GPS Coordinates: (, )
        Phone Number: (574) 287-8028
      License Number: 2004-6
               Valid: From 2004-05-06 to 2005-04-30
              Status: Renewed
    Council District: COUNCIL DISTRICT 2

Enter for next item. Space for next page. Ctrl+Enter for all. Esc to abort.

   Item ID (Item Type): 7 (business)
Business Name (Type): AGAPE CAB COMPANY (TAXI COMPANY)
             Address: 1843 COMMERCE DR, SOUTH BEND, IN 46628
     GPS Coordinates: (41.699999830000024, -86.30750750999994)
        Phone Number: (574) 514-2993
      License Number: 2004-7
               Valid: From 2004-03-18 to 2005-06-01
              Status: Renewed
    Council District: COUNCIL DISTRICT 1

Enter for next item. Space for next page. Ctrl+Enter for all. Esc to abort.

------------------------
| Search Businesses |
------------------------
Please select the field you would like to work with:
   1) Name
   2) Type
   3) Street Address
   4) City
   5) State
   6) ZIP Code
   7) Latitude
   8) Longitude
   9) Phone Number
  10) Business License Fiscal Year
  11) Business License Number
  12) Business License Issued Date
  13) Business License Expiration Date
  14) Business License Status
  15) Council District
  16) Back
Choice: 16

-----------------
| Search Items |
-----------------
Please select an item type:
   1) Business
   2) Park
   3) Public Facility
   4) Back
Choice: 4

-------------------------
| Main Interactive Menu |
-------------------------
```

Delete item

```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

-----------------------------
| Main Interactive Menu |
-----------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 5

-----------------------------------
| Delete Item -- Existing Items |
-----------------------------------
   Item ID: 1
Item Type: business
     Name: ARBY'S ROAST BEEF #677

   Item ID: 2
Item Type: business
     Name: ECONO LODGE

   Item ID: 3
Item Type: business
     Name: ABC CAB (DON'T USE)

   Item ID: 4
Item Type: business
     Name: BFI WASTE SERVICES

   Item ID: 5
Item Type: business
     Name: PETE BUCHANAN

   Item ID: 6
Item Type: business
     Name: CLARK TRASH REMOVAL

   Item ID: 7
Item Type: business
     Name: AGAPE CAB COMPANY

Enter for next item. Space for next page. Ctrl+Enter for all. Esc to abort.

Select item ID (0 to cancel): 1

-----------------------------
| Delete Item -- Results |
-----------------------------
Item ID 1 has been deleted.

   Item ID: 2
Item Type: business
     Name: ECONO LODGE

   Item ID: 3
Item Type: business
     Name: ABC CAB (DON'T USE)

   Item ID: 4
Item Type: business
     Name: BFI WASTE SERVICES

   Item ID: 5
Item Type: business
     Name: PETE BUCHANAN

   Item ID: 6
Item Type: business
     Name: CLARK TRASH REMOVAL

   Item ID: 7
Item Type: business
     Name: AGAPE CAB COMPANY

   Item ID: 8
Item Type: business
     Name: JAMISON INN

Enter for next item. Space for next page. Ctrl+Enter for all. Esc to abort.

-----------------------------
| Main Interactive Menu |
-----------------------------
```
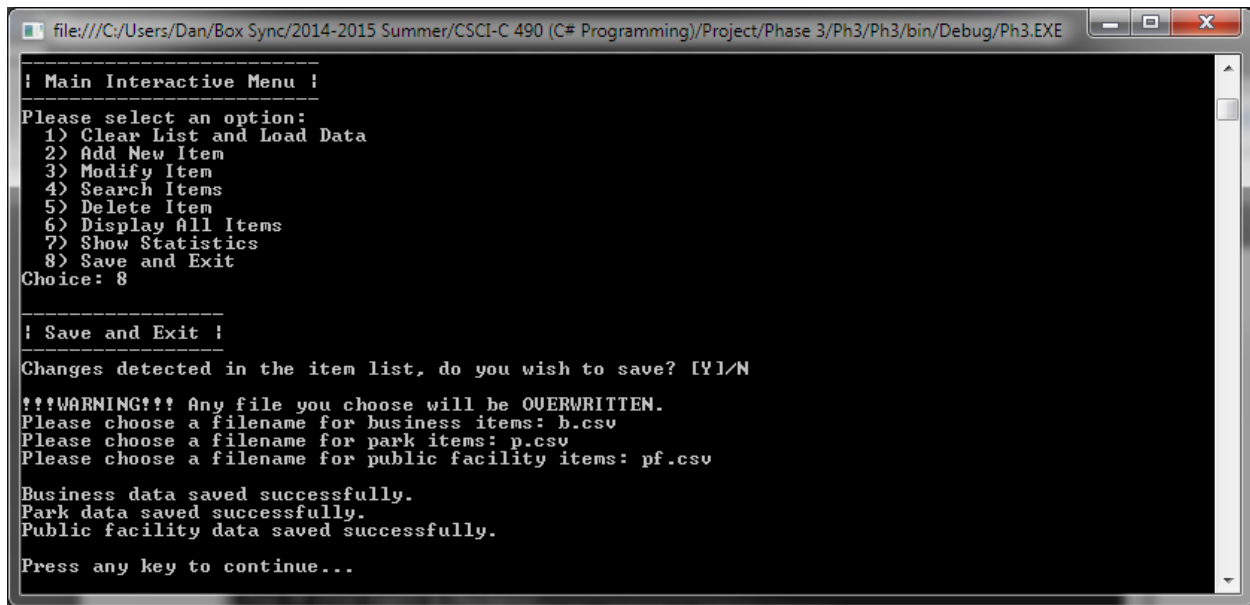
Save on exit

```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

--------------------------
: Main Interactive Menu :
--------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 8

--------------------
: Save and Exit :
--------------------
Changes detected in the item list, do you wish to save? [Y]/N

!!!WARNING!!! Any file you choose will be OVERWRITTEN.
Please choose a filename for business items: b.csv
Please choose a filename for park items: p.csv
Please choose a filename for public facility items: pf.csv

Business data saved successfully.
Park data saved successfully.
Public facility data saved successfully.

Press any key to continue...
```
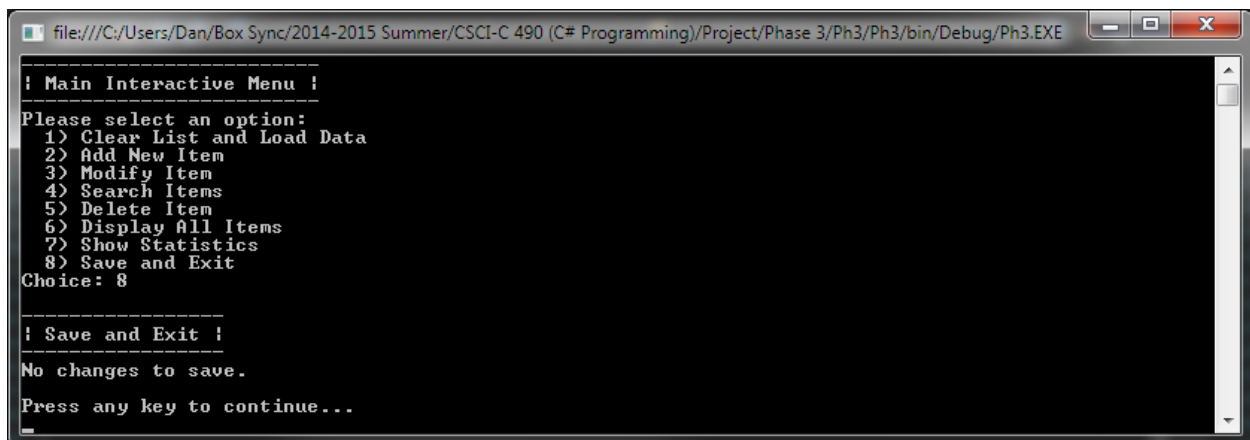
Doesn't save if not needed.

```
file:///C:/Users/Dan/Box Sync/2014-2015 Summer/CSCI-C 490 (C# Programming)/Project/Phase 3/Ph3/Ph3/bin/Debug/Ph3.EXE

--------------------------
: Main Interactive Menu :
--------------------------
Please select an option:
  1) Clear List and Load Data
  2) Add New Item
  3) Modify Item
  4) Search Items
  5) Delete Item
  6) Display All Items
  7) Show Statistics
  8) Save and Exit
Choice: 8

--------------------
: Save and Exit :
--------------------
No changes to save.

Press any key to continue...
```