## **Art Gallery**

## Department of Art



#### **Objectives:**

- To practice list operations such as create, insert, access, update, delete
- Practice searching from the list
- To sort elements of the list

#### **Assignment:**

You will be creating a database for the online gallery for Department of Arts, Mississippi State University. Your gallery consists of title of the artwork, genre of the art, artist name, year created and value. You need to create separate lists for each of the information. You have to be clear about the relation of the lists. The first element of the title list corresponds to the first artist and it also corresponds with the first elements of all other lists. User can insert new artwork information to your gallery. You will also provide option for finding the maximum and minimum valued artwork and also average value of all the artworks in your gallery. User can also delete an artwork when title is given. You should also provide the option for searching by title and year. For example if you put the year, it should show all the information of all artworks that was created in that year. Your program should run until the user hits quit option. The bonus part contains showing the artwork sorted in increasing order by their value.

### **Requirements:**

- Your program should run until user hits quit
- You can insert new artwork with title, genre, artist, date created and value
- Find information about maximum, minimum valued art

- Find the average value of artwork of your gallery
- Delete an artwork (all corresponding information) when title is given
- Find the artwork by title given by user
- Find all the artworks of a year given by user
- Use appropriate comments in the beginning of your code.

#### **Sample Executions:**

<ol> <li>Insert a artwork</li> </ol>	1. Insert a artwork
<ol><li>Find maximum valued art</li></ol>	2. Find maximum valued art
3. Find minimum valued art	3. Find minimum valued art
4. Show average value of my gallery	4. Show average value of my gallery
5. Delete an artwork	5. Delete an artwork
6. Find your art by title	6. Find your art by title
7. Find your arts by year	7. Find your arts by year
8. Show all art in sorted order	8. Show all art in sorted order
9. Quit	9. Quit
Your option: 1	Your option: 6
title: title1	Give a title: title2
genre: genre1	title2
Artist name: artist1	genre2
Year Created: 2007	artist2
value: 2000	2011
New artwork added!	1400

#### **Bonus:**

• Bonus: Show all the artwork information sorted by their value. The bonus is worth up to an extra 20 points.

#### **Deliverables:**

- In myCourses, upload your source code
- Lab Report: Your lab report should follow the outline for this class (found on myCourses) and include:
  - o Title Page
  - o Program Design (flow chart)
  - Sample Execution take a screen shot hold down alt key and press print screen) when you run your program and paste into your word document.

- Analysis and Conclusions Source Code
- Print your report and turn it in the next time that you attend lab

# Grading:

Task	Points
Demo 1	30 points
<ul> <li>Create all the necessary list</li> <li>Insert in the lists</li> <li>Find maximum valued art</li> <li>Find minimum valued art</li> </ul>	
Demo 2	40 points
Find average of all art	
Search by title	
Search by year	
<ul> <li>Delete artwork from the gallery</li> </ul>	
Lab report	30 points
Bonus	20 points
Sort artworks in an increasing order by value and show all the artworks in that order	