

**INF 293 Computer Programming for Business Applications
Class Work – 4**

Creating a form and a report based on a table.

1. Open the **USA Database** found in the Access folder to create a form similar as shown below.

The screenshot shows a Microsoft Access form window titled "USstates". The form has a header section with the title "United States Database" and the text "Created by Andrea Camon". To the right of the header is a graphic of a globe showing the United States. Below the header, the form displays data for the state of Alabama in a grid-like layout. The fields and their values are: Name: Alabama, Abbreviation: AL, Capital: Montgomery, Nickname: Heart of Dixie, Region: South Central, Year: 1819, Population: 4,040,587, Area (sq. miles): 51,609, and Population Density: 78.29. At the bottom of the form are three buttons: "Find Record", "Print Record", and "Close Form". A status bar at the very bottom indicates "Record: 1 of 50".

2. Create the form using the Form Wizard. Move and size the controls to match the arrangement in the figure.
 - a. **Population density** is a calculated control and is computed by dividing the population by the area. Format the density to two decimal places.
 - b. Add the graphic, following these steps:

The form should be opened in Design view.

 - Click the **Unbound Object Frame** tool on the toolbox.
 - Click and drag in the Form Header to size the frame, then release then mouse to display an **Insert Object** dialog box.
 - Click the **Create New Option** button. Select the **Microsoft Word Picture** as the type. Click **OK**.
 - Click the **Insert** menu, then click **Picture** and then click **Clip Art**. Choose the category and picture you want from within the Clip Gallery. Copy and paste the clip art icon into the Access form. Do not be concerned if only a portion of the picture appears on the form.
 - Right click the newly inserted object to display a shortcut menu, and then click the **Properties** dialog box. Select the **Size Mode** property and select the **Stretch** from the list. If necessary, change the **Back Style** to Transparent, the **Special Effect** property to Flat, and the **Border Style** property to Transparent. Close the **Properties** dialog box.
 - c. Replace your name in the report header.

3. Create a report based on **USA** database as shown below.

United States by Region

Prepared by GÜLSÜN TÖRECI



Region	Name	Capital	Population	Area	Population Density
Middle Atlantic	Pennsylvania	Harrisburg	11,881,643	45,333	262.10
Middle Atlantic	Delaware	Dover	666,168	2,057	323.85
Middle Atlantic	New Jersey	Trenton	7,730,188	7,836	986.50
Middle Atlantic	New York	Albany	17,990,455	49,576	362.89
Middle Atlantic	Maryland	Annapolis	4,781,468	10,577	452.06
Mountain	Arizona	Phoenix	3,665,228	113,909	32.18
Mountain	Colorado	Denver	3,294,394	104,247	31.60
Mountain	Nevada	Carson City	1,201,833	110,540	10.87
Mountain	Utah	Salt Lake City	1,722,850	84,916	20.29
Mountain	Idaho	Boise	1,006,749	83,557	12.05
Mountain	New Mexico	Santa Fe	1,515,069	121,666	12.45
Mountain	Montana	Helena	799,065	147,138	5.43
Mountain	Wyoming	Cheyenne	453,388	97,914	4.63
New England	New Hampshire	Concord	1,109,252	9,304	119.23
New England	Massachusetts	Boston	6,016,425	8,257	728.65
New England	Maine	Augusta	1,227,928	33,215	36.97
New England	Rhode Island	Providence	1,003,464	1,214	826.58
New England	Vermont	Montpelier	562,758	9,609	58.57
New England	Connecticut	Hartford	3,287,116	5,009	656.24
North Central	Michigan	Lansing	9,295,297	58,216	159.67
North Central	Iowa	Des Moines	2,776,755	56,290	49.33
North Central	Indiana	Indianapolis	5,544,159	36,291	152.77
North Central	Illinois	Springfield	11,430,602	56,400	202.67
North Central	Minnesota	Minneapolis	4,375,099	84,068	52.04
North Central	Kansas	Topeka	2,477,574	82,264	30.12

- The report lists states by geographic region, and alphabetically within region. It includes a calculated field, **Population Density**, which is computed by dividing a state's population by its area. Summary statistics are also required as shown in the report. (**Sum()** , **Avg()**, **Max()**, **Min()** functions for **Population** field).
- Note that the report header contains a map of the United States that was taken from the Microsoft ClipArt Gallery. You can insert the object as explained in the previous exercise.
- Be sure to include your name in the Report Header.

4. Following figure displays the Form view of a form to maintain an address book of friends and acquaintances. The picture is an added touch and well worth the effort, but it requires you to obtain pictures of your friends in machine-readable form. Each picture is stored initially in its own file (in GIF or JPEG format). The form and underlying table should be built upon the information in the form and should adhere to the following guidelines.

The screenshot shows a Microsoft Access window titled 'Address Book'. The form has a red header with the text 'Address Book'. Below the header, there are several text boxes for data entry. The fields are: Friend ID (empty), First Name (Maryann), Last Name (Barber), Address (9500 Royal Palm Road), City (Coral Springs), State (FL), Postal Code (33065-4909), Home Phone ((305) 284-5578), and Email Address (mbarber@miami.edu). A photo of a woman is displayed in a box on the right side of the form. At the bottom, there is a checkbox labeled 'Send Card' which is checked. The status bar at the bottom indicates 'Record: 1 of 1'.

- Create an **Address Book** database containing a table and an associated form, using the above figure as a guide. You can add or delete fields as appropriate, with the exception of the **FriendID** field, which is designated as the primary key. The **FriendID** should be identified as an AutoNumber field whose primary value is created automatically each time a record is added to the table.
 - Include a logical field (e.g., **SendCard**) in the underlying table. This will enable you to create a report of those people who are to receive a birthday card (or season's greeting card) once the data have been entered.
 - Include an OLE field in the table, regardless of whether or not you actually have a picture, and be sure to leave space on the form for the picture. Those records that have an associated picture will display the picture in the form; those records that do not have a picture will display a blank space.
 - To insert a picture into the database, open the table, click in the **OLE** field, pull down the **Insert menu**, and click the **Object** command. Click the **Create Form File** option button, click **Browse** button in the associated dialog box, then select the appropriate file name and location.
 - Enter data for yourself and three more friends in the completed form.
5. Create a report based on **Address Book** database listing friend in alphabetical order.