A Database Management Project Using Dbase III

A Creative Project (ID 499)

by

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Project Director

(advisor's signature)

Ball State University
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BALL STATE SCHOOL OF MUSIC COURSE REGISTRATION SYSTEM

This project involves the computerization of the registration procedures used by the Ball State School of Music. The School of Music uses their own system of registering students for classes before they are actually registered in AD 6. This computer system involves database manipulation, storage, and retrieval of data. This system is divided into four major parts:

1. Student information - This portion of the system allows for the addition of new student information, update of existing student information, deletion of existing student information, and review of existing student information. The type of information contained in the student database pertains to personal data about each student of the School of Music such as each student's social security number, first and last name, address, phone, and type of degree.

2. Faculty information - This portion of the system allows for the addition of new faculty information, update of existing faculty information, deletion of existing faculty information, and review of existing faculty information. The type of information included in the faculty database pertains to personal data of each faculty member of the School of Music such as social security number, first and last name, office address and phone, and faculty code number.

3. Registration information - This portion of the system allows for the addition of new course information for a student, update of existing course information, deletion of existing course information, and review of existing course information. This section also allows for the capability to print out or view on the screen the course information for a particular student and the capability to add or drop a course for a student. A new database is created for each new academic quarter, thereby keeping each quarter's registration information into separate, logical units. The system allows for the creation of these new databases, as well as the capability to backup each database as needed.

4. Faculty Class Lists - This portion of the system integrates the above three concepts. This section allows the user to either print or view on the screen all of the students and the courses each are taking for a particular faculty member for a certain quarter.

Attached is a sample proposal which was presented to and approved by the School of Music department head. The purpose of the proposal was to explain what my understanding of the project needs were and to give an estimate of the length and cost of the project. I was paid minimum wage for the project for which 55 hours were billed.

I felt that this project was a good experience for me because the type of work it entailed helped me prepare for real-world needs and deadlines. The language that this project was programmed in, DBASE III plus, is a very popular and innovative language. The experience I have gained from this project has already made me a more marketable person and given me a competitive edge over other computer majors without DBASE experience.
Future considerations of this project may involve the following:

1. An option for the user to change the colors on the screen before entering the system.

2. A Help File which the user could use to find out what the faculty codes are for each faculty member of the School of Music.

3. A counting mechanism which would remind the user to backup the database after a certain number of records are in the database.
PURPOSE

The purpose of this project is to computerize the current registration procedure used by the School of Music personnel. The new system will be primarily menu-driven and user-friendly. The database system will consist of three major database files: one containing student information, one containing faculty information, and one containing registration information. The system will consist of five major menus allowing the user to add, change, and delete student and faculty information, update and print course registration information, print faculty load reports, and backup current database files.

The project will consist of three phases as follows:

PHASE I

Program, develop, and design the three major databases and the five major menus as well as their respective submenus. This will serve as a prototype which will be demonstrated to the School of Music personnel after this phase is completed.

PHASE II

Program and develop the actual code to manipulate the database files through the menu-driven interface.

PHASE III

Thoroughly test, document, and install the database system. When the system is completed, demonstrate and train the users using the documentation provided.

ESTIMATED COST AND TIMETABLE

The project will be paid in partial payments corresponding to each of the three phases. The estimated amount of hours and cost for each phase is as follows:

PHASE I

10 hours @ $6.00/hour = $60.00

This payment will be due when Phase I is completed and demonstrated during the week of April 28, 1986.

PHASE II

30 hours @ $6.00/hour = $180.00

This payment will be due upon completion of this phase during the week of June 9, 1986.
PHASE III

15 hours @ $6.00/hour = $90.00

This payment will be due upon completion of the project during the week of June 23, 1986. Further modifications will be billed at the rate of $6.00/hour.

TOTAL COST

55 hours @ $6.00/hour = $330.00
DOCUMENTATION AND SCREEN LAYOUTS
DOCUMENTATION FOR THE MAIN MENU

YOU WILL SEE

1. Main Menu will appear and will display the six menu options along with the option to exit.

YOU WILL DO

1. Type 1 to access the Student Menu and press Enter.
   Type 2 to access the Faculty Menu and press Enter.
   Type 3 to access the Registration Menu and press Enter.
   Type 4 to access the Faculty Class Lists Menu and press Enter.
   Type 5 to access the Backup Menu and press Enter.
   Type 6 to Create a New Database and press Enter.
   or
   Type 0 to Exit.
MA I N  M E N U

1. STUDENT INFORMATION
2. FACULTY INFORMATION
3. REGISTRATION INFORMATION
4. FACULTY CLASS LISTS
5. BACKUP DATABASES
6. CREATE NEW DATABASE

0. EXIT

select 0
<table>
<thead>
<tr>
<th>YOU WILL SEE</th>
<th>YOU WILL DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Student Menu will appear displaying four menu options along with</td>
<td>1. Type 1 to add a new student and press Enter.</td>
</tr>
<tr>
<td>the option to exit.</td>
<td></td>
</tr>
<tr>
<td>2. A screen will be displayed asking the user to enter the new student’s</td>
<td>2. If the student has not been previously entered, a screen will appear</td>
</tr>
<tr>
<td>social security number and press Enter.</td>
<td>in which the user should type in each of the designated fields, pressing</td>
</tr>
<tr>
<td></td>
<td>enter after each. After the last field is entered (Degree), press CTRL-</td>
</tr>
<tr>
<td></td>
<td>END to save the information. DO NOT PRESS ENTER OR THE INFORMATION WILL</td>
</tr>
<tr>
<td></td>
<td>BE LOST !! After the student’s information has been entered and CTRL-END</td>
</tr>
<tr>
<td></td>
<td>has been pressed, the screen asking for student’s social security number</td>
</tr>
<tr>
<td></td>
<td>will appear again. Press enter to return to the Student Menu.</td>
</tr>
<tr>
<td>3. The Student Menu will appear.</td>
<td></td>
</tr>
<tr>
<td>4. A screen will appear asking the user to enter the student’s social</td>
<td>3. Type 2 to change a student’s information and press Enter.</td>
</tr>
<tr>
<td>security number and press Enter.</td>
<td></td>
</tr>
<tr>
<td>5. If an incorrect social security number has been entered, an error</td>
<td>4. Type in the social security number and press Enter.</td>
</tr>
<tr>
<td>message will appear and the computer will return to the Student Menu.</td>
<td></td>
</tr>
<tr>
<td>If a correct social security number has been entered, a screen will</td>
<td></td>
</tr>
<tr>
<td>appear displaying the student’s information.</td>
<td></td>
</tr>
<tr>
<td>5. Use the Enter key to move from one field to another and type in the</td>
<td></td>
</tr>
<tr>
<td>desired changes. To save the changes or leave this screen, press CTRL-END.</td>
<td></td>
</tr>
<tr>
<td>DO NOT PRESS ENTER OR THE INFORMATION WILL BE LOST !! After the changes</td>
<td></td>
</tr>
<tr>
<td>have been made and CTRL-END has been pressed, the screen asking for the</td>
<td></td>
</tr>
<tr>
<td>student’s social security number will appear again. Press Enter to return</td>
<td></td>
</tr>
<tr>
<td>to the Student Menu.</td>
<td></td>
</tr>
</tbody>
</table>
## DOCUMENTATION FOR THE STUDENT MENU

<table>
<thead>
<tr>
<th>YOU WILL SEE</th>
<th>YOU WILL DO</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. The Student Menu will appear.</td>
<td>Type 3 to delete a student’s information and press Enter.</td>
</tr>
<tr>
<td>7. A screen will appear asking the user to enter the student’s social security number and press Enter.</td>
<td>7. Type in the social security number and press Enter.</td>
</tr>
<tr>
<td>8. If the student’s information already exists, a screen will appear displaying the student’s information. If the student’s information does not previously exist, an error message will appear saying that the student was not found.</td>
<td>8. If the user is sure he/she wants to delete the student’s information type ‘Y’ and press Enter. If the user decides not to delete the student’s information type ‘N’ and press Enter and the information will not be deleted. If the user typed a ‘Y’, a screen will appear saying ‘RECORD HAS BEEN DELETED’ and press any key to continue. If the user typed ‘N’ a screen will appear saying ‘RECORD NOT DELETED’ and press RECORD to continue.</td>
</tr>
<tr>
<td>9. The screen will appear asking the user to enter the student’s social security number.</td>
<td>9. Press Enter when finished deleting students.</td>
</tr>
<tr>
<td>10. The Student Menu will appear.</td>
<td>10. Type 4 to look at the information on several students at a time. Use the cursor keys to move from field to field and record to record. Press ESC to exit from this screen and return to the Student Menu.</td>
</tr>
</tbody>
</table>
STUDENT INFORMATION

1. ADD INFORMATION
2. CHANGE INFORMATION
3. REMOVE INFORMATION
4. REVIEW INFORMATION

0. EXIT

*-------------------------------- select 0 ----------------------------------*

Command :<C:>\ZSTUDENT :Rec: 6/6 : Caps
ADD NEW STUDENT
PLEASE ENTER STUDENT SOCIAL SECURITY NUMBER 111-11-1111
FIRST NAME:          LAST NAME:

SOCIAL SECURITY NO.: 111-11-1111

ADDRESS:          CITY:          STATE:

ZIP:          PHONE: / -        ,

DEGREE:

PRESS CTRL-END AFTER ENTERING ALL OF STUDENT'S INFORMATION

APPEND  !<C:>;ZSTUDENT  !Rec: EOF/6  ! Caps
CHANGE STUDENT INFORMATION
PLEASE ENTER SOCIAL SECURITY NUMBER 111-11-1111
FIRST NAME: KATHY       LAST NAME: JOHNSON

SOCIAL SECURITY NO.: 111-11-1111

ADDRESS: 111 ELM ST.     CITY: MERRILLVILLE     STATE: IN

ZIP: 47332   PHONE: 218/553-1818

DEGREE: ASSOCIATE

PRESS CTRL-END TO SAVE AND EXIT; PRESS ESC TO EXIT.
DELETE STUDENT
PLEASE ENTER SOCIAL SECURITY NUMBER 111-11-1111

Command  :<B:>:ZSTUDENT :Rec: 4/5
FIRST NAME: KATHY       LAST NAME: JOHNSON

SOCIAL SECURITY NO.: 111-11-1111

ADDRESS: 111 ELM ST.       CITY: MERRILLYVILLE       STATE: IN

ZIP: 47332       PHONE: 218/565-1818

DEGREE: ASSOCIATE

IS THIS THE RECORD YOU WISH TO DELETE? (Y/N)

READ        !<B:>::IZSTUDENT        !Rec: 4/5        !        !
RECORD HAS BEEN DELETED

Command: <C:>:ZSTUDENT
Rec: 4/6
Caps
Press any key to continue...
RECORD NOT DELETED

Command   

Press any key to continue...
VIEW STUDENT DATABASE
SSN------- FNAME------ LNAME-------- ADDR---------------- CITY-----------
111-11-1111 KATHY JOHNSON 111 ELM ST. MERRILLVILLE
222-22-2222 JAMES BROWN 250 FIFTH STREET YORKTOWN
305-86-3377 KATHERINE HARRIS RR1, BOX 79 FARMLAND
333-33-3333 JANE SMITH RR1 MUNCIE
444-44-4444 ROBERT MAIN 205 RESIDENCE PARKER CITY

View and edit fields.
1. The Faculty Menu will appear displaying four menu options along with the option to exit.

YOU WILL SEE

1. Type 1 to add a new faculty member and press Enter. A screen will be displayed asking the user to enter the new faculty's code number and press enter. If the faculty has not been entered previously, a screen will appear in which the user should type in each of the designated fields, pressing Enter after each. After the last field is entered (Phone Number), press CTRL-END to save the information. DO NOT PRESS ENTER OR THE INFORMATION WILL BE LOST!!! After the faculty's information has been entered and CTRL-END has been pressed, the screen asking for the faculty's code number will appear again. Press Enter to return to the Faculty Menu.

Type 2 to change a faculty's information and press Enter. A screen will appear asking the user to enter the faculty's code number and press Enter. If an incorrect faculty code number is entered, an error message will appear and the computer will return to the Faculty Menu. If a correct faculty code number is entered, a screen will appear displaying the faculty's information. Use the Enter key to move from one field to another and type in the desired change. To save the changes or leave this screen, go to the last field on the screen (Phone Number) and press CTRL-END. DO NOT PRESS ENTER OF THE INFORMATION WILL BE LOST!!! After the changes have been made and CTRL-END has been pressed, the screen asking for the faculty code number will appear again. Press Enter to return to the Faculty Menu.
1. Type 3 to delete a faculty's information and press Enter. A screen will appear asking the user to enter the faculty code number and press Enter. If the faculty's information exists, a screen will appear displaying the faculty's information. If the user is sure he/she wants to delete the faculty's information, type Y and press Enter. If the user decides not to delete the information, type N and press Enter and the information will not be deleted. If the user type Y, a screen will appear saying 'RECORD HAS BEEN DELETED' and press any key to continue. If the user typed N, a screen will appear saying 'RECORD NOT DELETED' and press any key to continue.

Type 4 to look at the information on several faculty members at a time. Use the cursor keys to move from field to field and record to record. Press ESC to exit from this screen and return to the Faculty Menu.
FACULTY INFORMATION

1. ADD INFORMATION
2. CHANGE INFORMATION
3. REMOVE INFORMATION
4. REVIEW INFORMATION
0. EXIT

Command: \(C:\>\) ZFACULTY  
Rec: 1/1  
Caps
ADD NEW FACULTY
PLEASE ENTER FACULTY CODE NUMBER 52

Command: \C>\ZFACULTY

Rec: 1/1

Caps
FIRST NAME:            LAST NAME:

SOCIAL SECURITY NO.:   -   -

FACULTY CODE NUMBER:  52

OFFICE NUMBER:         PHONE NUMBER:

PRESS CTRL-END AFTER ENTERING FACULTY INFORMATION

APPEND            !<C:\>!ZFACULTY            !Rec: EOF/1   !   ! Caps