

## ACS19E1 - Practical Component Instructions

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Complete the practical component by following these instructions. You will use your completed Access database file to answer the 40 questions of the online exam. You will not submit or upload your completed Access database file in myAOLCC.

Please return these instructions and your completed Access database file to your Learning Coach once you have completed the online exam.

Please note that these are general and not step-by-step instructions. In this practical component, you will use Microsoft Access 2019 to perform the following functions:

- Create a table
- Add fields and define field properties
- Import data from an Excel sheet
- Set up table relationships
- Create a form and define form properties
- Create a query and sort the query results
- Create a report
- Setting up a validation rule
- Save the report as a PDF document
- Update a form theme
- Export data to an Excel sheet

## Instructions

Create a new folder, titled, **Access Exam Folder** in your personal folder or on your desktop. Save the files from the *Practical Component* page to your **Access Exam Folder**:

- ABL Library\_Master\_Database.accdb
- ABL\_Member.xlsx
- ABL\_Return.txt

Complete the following steps using any technique you wish.

1. Open the database file, **ABL Library\_Master\_Database.accdb**. Change the title of the database to **ABL Library – Books for Everyone**.

**Note:** The *tblBooks* and *tblBorrowers* tables are already populated with data.

2. Create the following tables and fields:

a. **tblMembers**

Field Name	Data Type	Description
<b>MemberID</b>	Number	A unique ID for a member
Field Size	Long Integer	
Required	Yes	
Indexed	Yes (No Duplicates)	
<b>MemberFirstName</b>	Short Text	First name of the member
Field Size	25	
Required	No	
Allow Zero Length	Yes	
Indexed	No	
<b>MemberLastname</b>	Short Text	Last name of the member
Field Size	25	
Required	No	
Allow Zero Length	Yes	
Indexed	Yes (Duplicates OK)	
<b>MemberStatus</b>	Short Text (using Lookup Wizard create the following drop-down list – Admin, Active, Blocked, Unknown)	What is the current status of the member?
Field Size	255	
Required	No	
Allow Zero Length	Yes	
Indexed	No	

- Import and append data from **ABL\_Member.xlsx** in the *tblMembers* table.

**b. tblReturns**

Field Name	Data Type	Description
ReturnID	AutoNumber	A unique ID for a returned book
Field Size Indexed	Long Integer Yes (No Duplicates)	
BorrowID	Number	A unique ID for a borrower
Field Size Required Indexed	Long Integer No No	
BookID	Number	Unique ID for the book
Field Size Required Indexed	Long Integer No Yes (Duplicates OK)	
ReturnDate	Date/Time	Return date for the book borrowed
Format Required Indexed	Short Date No No	
ActReturnDate	Date/Time	Date the book was actually returned on
Format Required Indexed	Short Date No No	
LateDay	Number	Number of days that the book is submitted late
Field Size Required Indexed	Long Integer No Yes (Duplicates OK)	
Fine	Currency	Fine levied for late book submission
Required Indexed	No No	

- Import and append data from **ABL\_Return.txt** in the tblReturns table.

3. Create the following forms with the given properties using the Form Wizard:

**a. frmBooks**

Record Source	tblBooks
Caption	frmBooks
Default View	Single Form
Form Header – Name	frmBooks
Form Header – Caption	Books and Borrowers
Allow Form View	Yes
Allow Datasheet View	Yes
Allow Layout View	No

- Extend the form header across the width of the form.

- Add all the fields from **tblBooks** and place them one below the other.
- Disable the **ID** field.

**b. frmBookAuthor**

Use the **Form Design** command for this activity.

Record Source	tblBooks
Caption	frmBookAuthor
Default View	Single Form
Allow Form View	No
Allow Datasheet View	Yes
Allow Layout View	No

Add the **Title** and **Author** fields from **tblBooks** in this form.

**For the Title field:**

- Label: TitleLabel
- Caption: Book Title
- Control Source: Title

**For the Author field:**

- Label: AuthorLabel
- Caption: Book Author
- Control Source: Author

**c. frmBorrowers**

Use the **Form Design** command for this activity.

Record Source	tblBorrowers
Caption	frmBorrowers
Form Header Name	Borrowers
Form Header Caption	Borrower's Details
Default View	Single Form
Allow Form View	Yes
Allow Datasheet View	Yes
Allow Layout View	No

- Add all the fields from **tblBorrowers** and place them one below the other.
- Align them to the left of the form.
- Increase the width and depth of the form.
- Widen the form header across the width of the form.

- Add a subform in the frmBorrowers form with the following properties. Close the subform wizard and manually define the following subform properties using the Property Sheet.
    - **Name:** frmBookAuthor
    - **Source:** frmBookAuthor
    - **Label Name:** BookAuthorSubformLabel
    - **Label Caption:** Books and Their Authors
    - **Link Master Fields:** BookID
    - **Link Child Fields:**ID
  - Extend the caption across the width of the subform.
  - Widen the fields to accommodate the data.
4. Create relationships between the following tables:
- **ID** in tblBooks to **BookID** in tblBorrowers
  - **MemberID** in tblMembers to **MemberID** in tblBorrowers
- Enable **Enforce Referential Integrity** for the relationships.
5. For the tblBorrowers table add a Validation Rule and Validation Text corresponding to the following message in Datasheet View using the Fields tab: **The return date cannot be earlier than the borrow date.**
- Check the validity of the rule by changing the return date for the record with MemberID – 2489 to **8/7/2021**.
- Revert to the original date.
6. Create the following query:
- **qryBorrowers**, where the borrow status is featured using the following fields:
 

From tblBorrowers: **BorrowID, BorrowDate, Status.**

From tblMembers: **MemberFirstName, MemberLastName.**

Sort the query in a **Descending** order for the BorrowID field.
7. Create the following report:
- **rptBorrowers**, based on the qryBorrowers
    - Header Name: rptBorrowers
    - Header Caption: Borrower's Details
8. Open a Print Preview of **qryBorrowers**. Export the table as a PDF document using the Print function. Change the orientation to **Landscape**.

9. Sort the **Title** field in tblBooks in an ascending order. Then filter and find records that have the term “African” in it. Remove the filter.
10. Change the Theme of the **frmBorrowers** to Ion Boardroom.
11. Export the **tblBorrowers** table to an Excel sheet.
12. Save the database file.

Let your Learning Coach know once you have completed your practical component. Keep the database file open on your desktop so that you will have the information available as you complete the online exam.

Your Learning Coach will provide a code for you to access the online exam.