



Lab project1



1. Create a Database

1.1 Select a Blank Database

1.1.1 From the Access Welcome screen

1.1.2 From the File > New menu

1.2 Name the Database *Music*

1.3 Your New Database!



Info

New

Open

Save

Save As

Print

Close

Account

Feedback

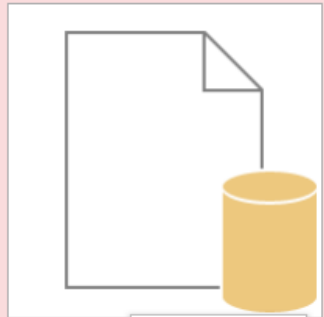
Options

New

Search for online templates



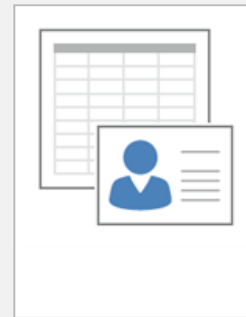
Suggested searches: Database Business Logs Industry Lists Personal Contacts



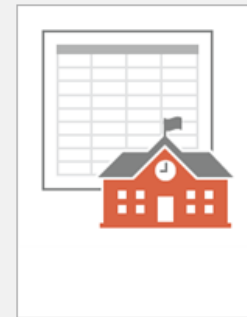
Blank data Blank database



Asset tracking



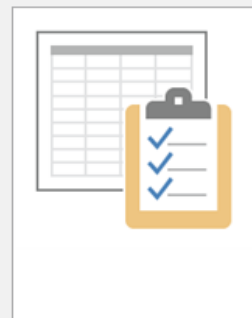
Contacts



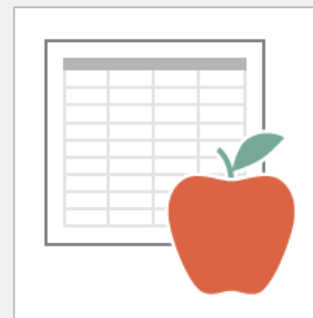
Students



Event managem...



Task management



Nutrition tracking



Charitable contributions



2. Create a Table

2.1 Customize the Blank Table

2.1.1 Select a Data Type for the New Field

2.1.2 Name the Field

2.1.3 Rename the First Field

2.1.4 Save the Table

2.1.5 Your Finished Table

Table Tools

Test : Database- D:\Education\SEU\东南大学...

Sign in

FileHomeCreateExternal DataDatabase ToolsHelpFieldsTable

Tell me what you want to do

View

Views

AB

12

Short Text

Number

Currency

Date & Time

Yes/No

More Fields

Delete

Name & Caption

Default Value

Field Size

Modify Lookups

Modify Expression

Memo Settings

AutoNumber

Formatting

%

Required

Unique

Indexed

Validation

All Access...

Search...

Tables

Table1

Table1

IDClick to Add

(New)

Record: 14

No Filter

Search

Datasheet View



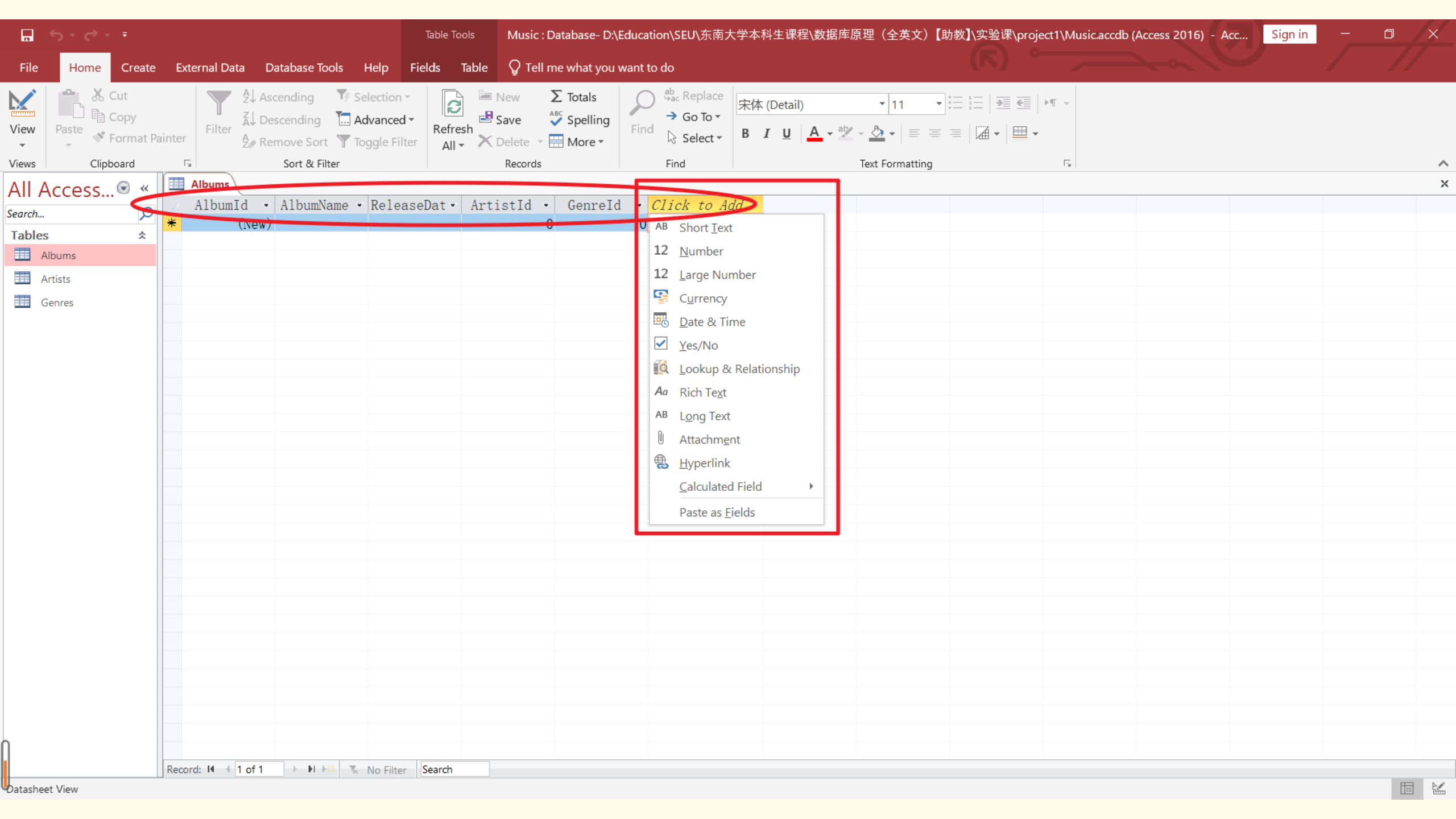
2. Create a Table

2.2 Create a New Table

2.2.1 Create a New Table *Albums*

2.2.2 Set up the Fields

| Field Name | Data Type |
|-------------|------------------|
| AlbumId | (Leave it as is) |
| AlbumName | Short Text |
| ReleaseDate | Date & Time |
| ArtistId | Number |
| GenreId | Number |



| AlbumId | AlbumName | ReleaseDate | ArtistId | GenreId | Click to Add |
|---------|-----------|-------------|----------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * | (New) | | 0 | 0 | AB Short Text 12 Number 12 Large Number Currency Date & Time <input checked="" type="checkbox"/> Yes/No Lookup & Relationship A Rich Text AB Long Text Attachment Hyperlink Calculated Field Paste as Fields |



3. Create a Table in Design View

3.1 Create the Table *Genres*

3.2 Add Fields to the Table

3.3 Change the *Genre* Field Properties

3.4 Set a Primary Key

3.5 Save the Table

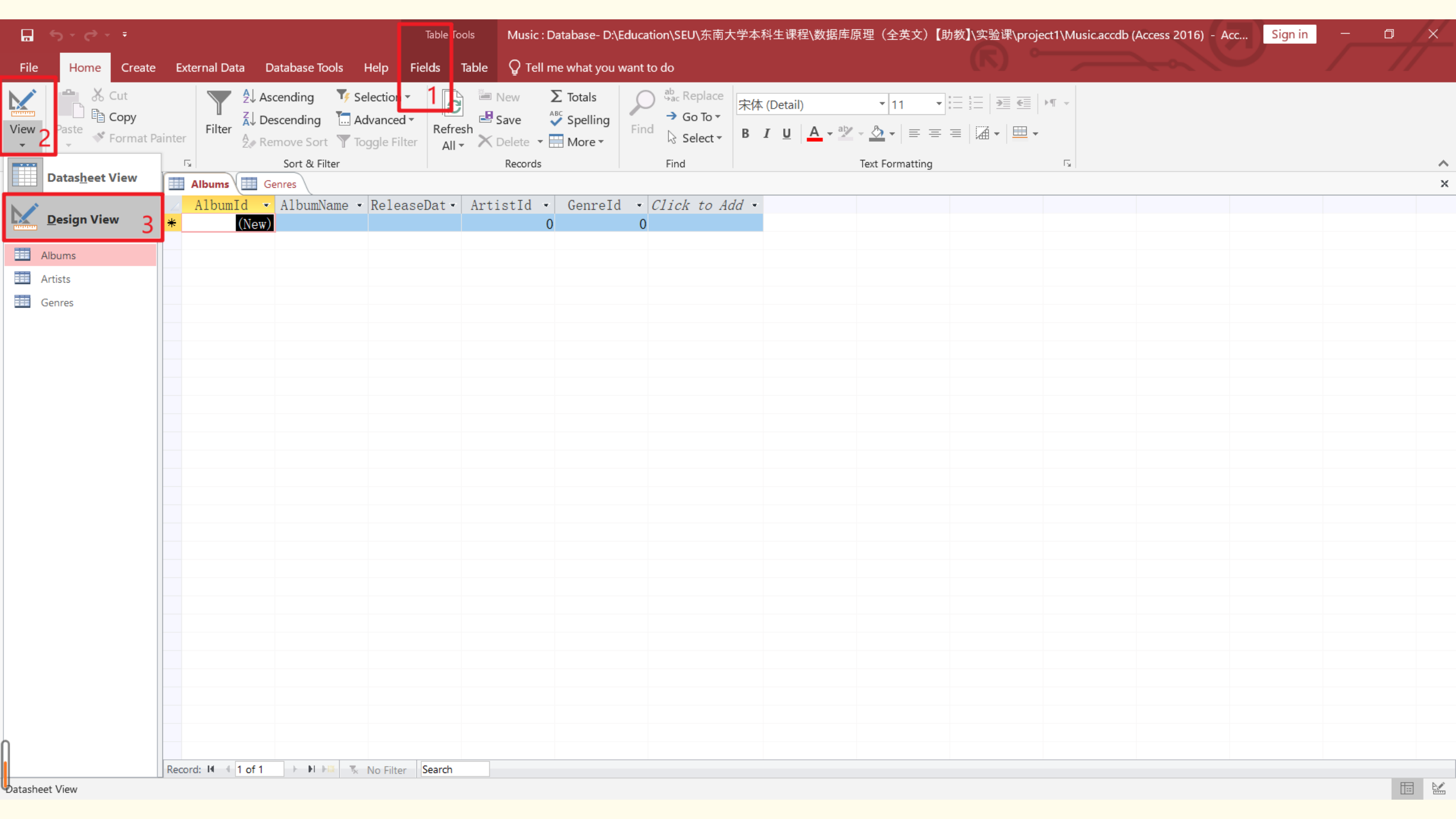


4. Set the Field Properties for an Existing Table

4.1 Open the Albums table in Design View

4.2 Modify the *AlbumName* Field

4.3 Modify the *ArtistId* Field



FileHomeCreateExternal DataDatabase ToolsHelpDesign

View

Primary Key

Builder

Test Validation Rules

Modify Lookups

Insert Rows

Delete Rows

Property Indexes Sheet

Show/Hide

Create Data Macros

Rename/Delete Macro

Relationships

Object Dependencies

Tools

Table Tools

Music : Database- D:\Education\SEU\东南大学本科课程\数据库原理（全英文）【助教】\实验课\project1\Music.accdb (Access 2016) - Access

Sign in

All Access...

Search...

Tables

Albums

Artists

Genres

Albums

Genres

| Field Name | Data Type | Description (Optional) |
|-------------|------------|------------------------|
| AlbumId | AutoNumber | |
| AlbumName | Short Text | |
| ReleaseDate | Date/Time | |
| ArtistId | Number | |
| GenreId | Number | |

Field Properties

General

Lookup

| | |
|------------|---------------------|
| Field Size | Long Integer |
| New Values | Increment |
| Format | |
| Caption | |
| Indexed | Yes (No Duplicates) |
| Text Align | General |

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help.



5. Add Data to a Table

5.1 Add Records Directly into Datasheet View

5.2 Add Data using a Form

5.3 Add Data using SQL

5.4 Import Data from an External Source

| GenreId* | Genre |
|--------------|---------|
| (Autonumber) | Rock |
| (Autonumber) | Pop |
| (Autonumber) | Jazz |
| (Autonumber) | Blues |
| (Autonumber) | Hip Hop |

File

Home

Create

External Data

Database Tools

Help

Fields

Table

Tell me what you want to do

Table Tools

Music : Database- D:\Education\SEU\东南大学本科课程\数据库原理（全英文）【助教】\实验课\project1\Music.accdb (Access 2016) - Acc...

Sign in

Views

View

Cut

Copy

Format Painter

Filter

Sort & Filter

Refresh All

Records

Find

Find

Text Formatting

Filter

Ascending

Descending

Remove Sort

Selection

Advanced

Toggle Filter

New

Save

Delete

Totals

Spelling

More

Replace

Go To

Select

宋体 (Detail)

11

B

I

U

A

Text Formatting

All Access...

Search...

Tables

Albums

Artists

Genres

Albums

Genres

Artists

| GenreId | Genre | Click to Add |
|---------|---------|--------------|
| 1 | Rock | |
| 2 | Pop | |
| 3 | Jazz | |
| 4 | Blues | |
| 5 | Hip Hop | |
| * | (New) | |

Record: 1 of 5

No Filter

Search

Datasheet View



6. Import Data into Access

6.1 Import a CSV File into an Existing Table

6.2 Launch the Import Wizard

6.3 Select the Source File & Destination Table

6.4 Review the Format Options

6.5 Select/Review the Delimiter



6. Import Data into Access

6.6 Skip the Extra Field

6.7 Continue the Wizard

6.8 Run the Import

6.9 Close the Wizard

6.10 Check that the data has been Imported

File Home Create External Data Database Tools Help Fields Table Tell me what you want to do

Sign in

1

2

3

New Data Source

Saved Imports

Linked Table Manager

Saved Exports

Excel

Text File

XML File

PDF or XPS

Email

Access

Word Merge

More

From File

From Database

From Online Services

From Other Sources

Excel

HTML Document

XML File

Text File

Click to Add

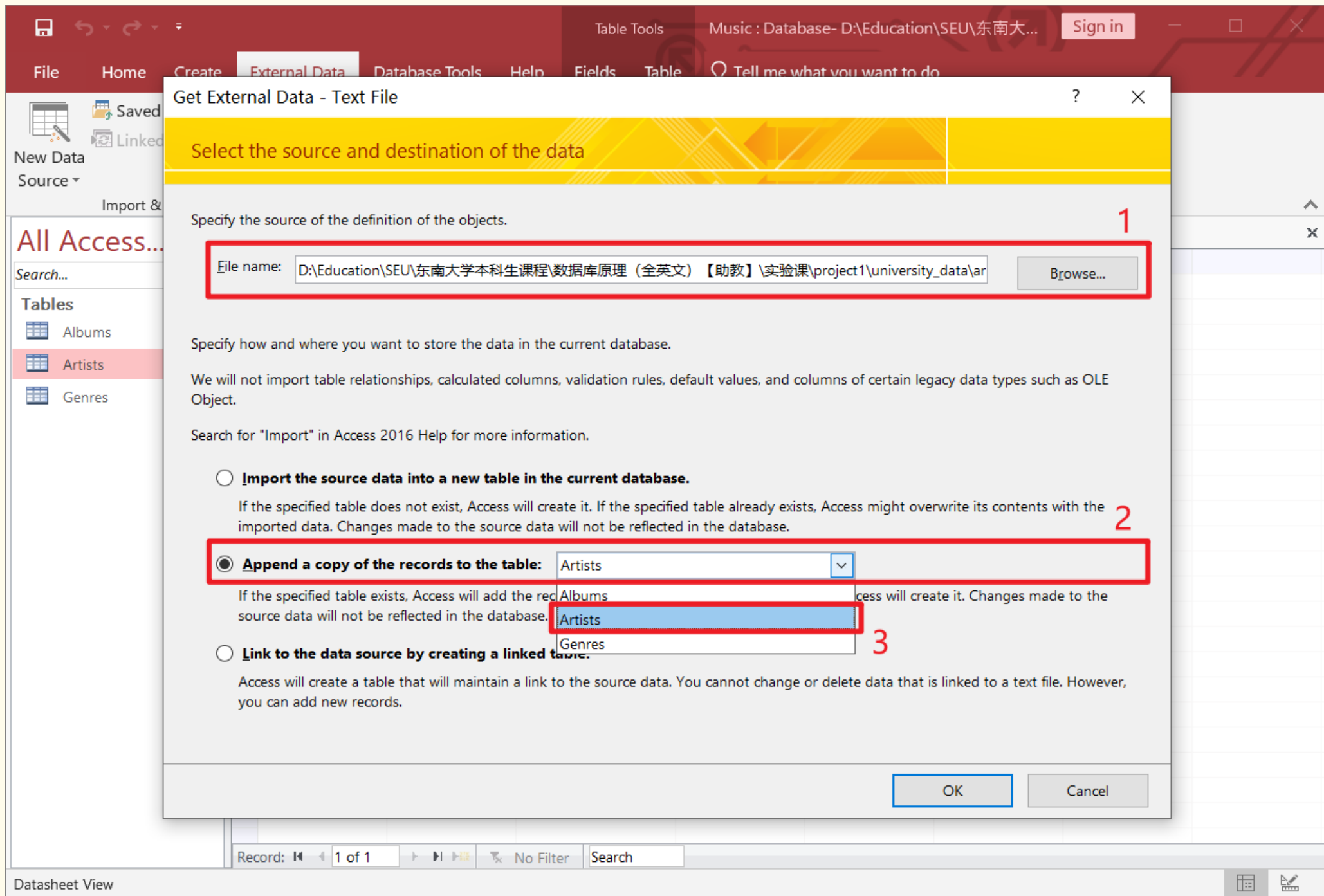
Record: 1 of 1

No Filter

Search

Datasheet View

The screenshot shows the Microsoft Access interface. The 'External Data' tab is selected in the ribbon. The 'New Data Source' button is highlighted with a red box and the number 2. The 'Text File' option in the 'From Other Sources' group is highlighted with a red box and the number 3. The 'Linked Table Manager' button is highlighted with a red box and the number 1. The 'Text File' option is also highlighted with a red box and the number 3. The 'Click to Add' button is visible in the main workspace. The status bar at the bottom shows 'Record: 1 of 1', 'No Filter', and a search box. The 'Datasheet View' button is active in the bottom right corner.





File

Home

New Data
Source ▾

Linked

Import &

All Access...

Search...

Tables



Albums



Artists



Genres

Import Text Wizard

Your data seems to be in a 'Delimited' format. If it isn't, choose the format that more correctly describes your data.

- ☒ **Delimited** - Characters such as comma or tab separate each field
- ☐ **Fixed Width** - Fields are aligned in columns with spaces between each field

Sample data from file: D:\EDUCATION\SEU\东南大学本科生课程\数据库原理（全英文）【助教】\实验课\PROJECT1\UNIVERSITY_DATA\ARTISTS.CSV.

| | |
|---|-----------------------------|
| 1 | 1, AC/DC, 1973 |
| 2 | 2, Louis Armstrong, 1914 |
| 3 | 3, Iron Maiden, 1975 |
| 4 | 4, Miles Davis, 1944 |
| 5 | 5, Pat Benetar, 1972 |
| 6 | 6, Stevie Ray Vaughan, 1965 |
| 7 | 7, Avenged Sevenfold, 1999 |
| 8 | 8, Destiny's Child, 1990 |
| 9 | 9, Snoop Dogg, 1992 |
| | |
| | |
| | |
| | |

Advanced...

Cancel

< Back

Next >

Finish

Record: 1 of 5

1 of 5

No Filter

Search



File

Home

Import Text Wizard

New Data
Source ▾

Saved



Linked

Import &

All Access...

Search...

Tables



Albums



Artists



Genres

What delimiter separates your fields? Select the appropriate delimiter and see how your text is affected in the preview below.

Choose the delimiter that separates your fields:

☐ Tab☐ Semicolon☒ Comma☐ Space☐ Other:☐ First Row Contains Field Names

Text Qualifier:

{none} ▾

| | | |
|---|--------------------|------|
| 1 | AC/DC | 1973 |
| 2 | Louis Armstrong | 1914 |
| 3 | Iron Maiden | 1975 |
| 4 | Miles Davis | 1944 |
| 5 | Pat Benetar | 1972 |
| 6 | Stevie Ray Vaughan | 1965 |
| 7 | Avenged Sevenfold | 1999 |
| 8 | Destiny's Child | 1990 |
| 9 | Snoop Dogg | 1992 |



Advanced...

Cancel

< Back

Next >

Finish

Record: 1 of 5



No Filter

Search

Music : Database- D:\Education\SEU\东南大学本科生课程\数据库原理 (全英文)【助教】\实验课\project1\Music.... Sign in

File Home

New Data Source

Import &

All Access...

Search...

Tables

- Albums
- Artists
- Genres

1 AC/DC
2 Louis Armstrong
3 Iron Maiden
4 Miles Davis
5 Pat Benetar
6 Stevie Ray Vaughan
7 Avenged Sevenfold
8 Destiny's Child
9 Snoop Dogg

What delimiter separates the fields in the text file?
Choose the delimiter that matches the text file.
☐ Tab ☐ Semicolon
☐ First Row Contains Field Names

Import Text Wizard

Artists Import Specification

File Format: ☒ Delimited ☐ Fixed Width
Field Delimiter: ,
Text Qualifier: {none}

Language: 中文
Code Page: 简体中文(GB2312)

Dates, Times, and Numbers
Date Order: YMD ☒ Four Digit Years
Date Delimiter: / ☐ Leading Zeros in Dates
Time Delimiter: : Decimal Symbol: .

Field Information:

| Field Name | Skip |
|------------|-------------------------------------|
| ArtistId | <input type="checkbox"/> |
| ArtistName | <input type="checkbox"/> |
| Field3 | <input checked="" type="checkbox"/> |
| * | <input checked="" type="checkbox"/> |

Advanced... 1

OK 3

Cancel

Save As...

Specs...

Cancel

< Back

Next >

Finish

Record: 1 of 5

No Filter

Search

Import Text Wizard

Music : Database- D:\Education\SEU\东南大学本科生课程\数据库原理 (全英文)【助教】\实验课\project1\Music....

Sign in

FileHome

New Data Source

All Access...


Search...

Tables

- Albums
- Artists
- Genres

Import &

Import Text Wizard



That's all the information the wizard needs to import your data.

Import to Table:

Artists

☐ I would like a wizard to analyze my table after importing the data.

Advanced...

Cancel

< Back

Next >

Finish

Record: 1 of 5

No Filter

Search

Music : Database- D:\Education\SEU\东南大学本科生课程\数据库原理（全英文）【助教】\实验课\project1\Music....

Sign in

FileHome

Saved

Linked

New Data Source

Import &

All Access...

Search...

Tables

Albums

Artists

Genres

Get External Data - Text File

Save Import Steps

Finished importing file 'D:\Education\SEU\东南大学本科生课程\数据库原理（全英文）【助教】\实验课\project1\university_data\artists.csv' to table 'Artists'.

Do you want to save these import steps? This will allow you to quickly repeat the operation without using the wizard.

☐ Save import steps

Close

Record: 1 of 5

No Filter

Search

Ready

File

Home

Create

External Data

Database Tools

Help

Fields

Table

Tell me what you want to do

Table Tools

Music : Database- D:\Education\SEU\东南大...

Sign in

New Data Source

Import & Link

Saved Imports

Linked Table Manager

Saved Exports

Excel

Text File

XML File

PDF or XPS

Email

Export

Access

Word Merge

More

All Access...

Search...

Tables

Albums

Artists

Genres

Albums

Genres

Artists

| ArtistId | ArtistName | Click to Add |
|----------|--------------|--------------|
| 1 | AC/DC | |
| 2 | Louis Armstr | |
| 3 | Iron Maiden | |
| 4 | Miles Davis | |
| 5 | Pat Benetar | |
| 6 | Stevie Ray V | |
| 7 | Avenged Seve | |
| 8 | Destiny's Ch | |
| 9 | Snoop Dogg | |
| * | (New) | |

Record: 1 of 9

No Filter

Search

Datasheet View



Assignment 1



Content

- ✓ **Familiar with MS Access**
- ✓ **Establish a university database**
 - `university.mdb`
- ✓ **Load data into the database**
- ✓ **Make a group of random tuples for student table and let student has more than 5000 tuples**



Schema and Sample Data

- The schema of the database is provided below (keys are in bold, field types are omitted):

student(**sid**, sname, sex, age, year, gpa)

dept(**dname**, numphds)

prof(**pname**, dname)

course(**cno**, cname, **dname**)

major(**dname**, **sid**)

section(**dname**, **cno**, **sectno**, pname)

enroll(**sid**, grade, **dname**, **cno**, **sectno**)

- Before you start writing SQL, it is a good idea to take a look at the database and familiarize yourself with its contents.



Data Files

- Download the following data files from WeChat group files
 - course.txt
 - dept.txt
 - enroll.txt
 - major.txt
 - prof.txt
 - section.txt
 - student.txt



Submission

- File name format:

StudentNumber_A1.zip

including:

report_A1.doc/ report_A1.docx

university_A1.mdb/university_A1.accdb

Deadline: Beijing time, September 2nd, 23:59:00

Send your questions and projects to TAs:

seudatabaseqa@gmail.com