## CS200 Assignment 7 – FileMaker: Introduction to Databases

## Due Monday July 6, 2020, 11:59 pm

Readings and Resources

On Learn: Database Resources > Database Design: Intro
Database Resources > Database Design: Why Use a Relational Database Design

Files

This document only. Answers all questions in this document and submit on Learn.

Assignment Objectives

To gain an understanding of field definitions

To practice proper field defining and data validation.

To recognize the different types of relationships

Your Tasks

1. [15%] There are 4 sets of tables below. Underline (yes underline!) the primary keys and bold the foreign keys.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Actor** | **TV Show** |  | **Book** | **Borrowed** |
| Actor IDFirst NameLast NameResidenceMarital StatusIncome per EpisodeTV Show ID | TV Show IDTV Show TitleGenreDayTimeLengthNumber of ViewersNetwork |  | Book IDTitlePublisherAuthorNumber of PagesYear Published | Friend IDFirst NameLast NamePhone NumberBook IDDate BorrowedDate Returned |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Hotels** | **Locations** |  | **Movies** | **Studios** |
| Hotel IDHotel NameCost per NightRatingFacilitiesServicesPhone NumberGross Per YearLocation ID | Location IDCityAttractionClimateAverage TemperatureNumber of Tourists |  | Movie IDTitleGenreRelease DateStudio ID | Studio IDStudio NameHead Office LocationMovies Per YearAverage Income per Movie |

1. [20%] In the chart below, identify which type of relationship (with an a,b or c) and briefly explain why you chose the type of relationship you chose. (eg. Albums and Songs is one to many because one album has many songs)

|  |  |  |
| --- | --- | --- |
|  | Type of Relationship | Briefly explain why you chose each relationship |
| Customer to Purchase* 1. One to Many
	2. Many to One
	3. Many to Many
 |  |  |
| Race to Runner* 1. One to Many
	2. Many to One
	3. Many to Many
 |  |  |
| Letter to Destination* 1. One to Many
	2. Many to One
	3. Many to Many
 |  |  |
| Concert to Song* 1. One to Many
	2. Many to One
	3. Many to Many
 |  |  |

1. [35%] Define the following tables with appropriate field types and data validation options. Identify the primary key by underlining and if there is a foreign key identify it by making it bold. (Field type and data validation options to choose from are on the last page)

Hint: A primary key may be more than one field to make a record unique.

|  |  |  |
| --- | --- | --- |
| Student Table | Field Options | Data Validation Options |
| Student Number  |  |  |
| Surname |  |  |
| First Name |  |  |
| Address |  |  |
| City |  |  |
| Province |  |  |
| Phone |  |  |
| Birthdate |  |  |

|  |  |  |
| --- | --- | --- |
| Marks Table | Field Options | Data Validation Options |
| Course  |  |  |
| Assignment Number |  |  |
| Grade |  |  |
| Student ID |  |  |

1. [15%] List 3 reports you would create from the Student and Marks tables. You may create reports that involve one or both tables.

|  |
| --- |
|  |
|  |
|  |

1. [15%] List 3 queries you would make of the database. You may create queries that involve one or both tables.

|  |
| --- |
|  |
|  |
|  |

## Submission Instructions

Put your name, Username and ID in the header.

Rename A07\_DatabaseIntro\_1205.docx to username\_A07.docx

Submit it to the Assignment 7 DropBox on Learn.

Field Types

Text

Number

Date

Calculation

Data Validation Options

Unique

Number

Date

Not Empty

Range (…)

Value List (…)