

Database Systems Fall Semester, 2008

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Assignment 2: SQL Queries

Deadline: At the end of the class, Oct 29 (Wed), 2008

This is an individual assignment, that is, no group submissions are allowed.

Cheating Policy: *If you are caught cheating, your grade is 0.*

Late Policy: *We will not accept any assignment submissions.*

Introduction

On World Wide Web there are more than 100 different web pages dedicated to Star Wars. However, the answer to a specific trivia question is sometimes difficult to find, precisely because of the abundance of information. In this assignment we will be creating a new Star Wars Trilogy database for the trivia lovers. We decided to begin with the time tables - who went where and when. Your task will be to create SQL queries that answer some of the often asked questions. (or questions that we found most fascinating and asked often) Please download the related file on the course website to initialize the database. The file includes the information of the database. This database currently contains the following tables:

characters: contains information about the character's Name (primary key), Race (if known), Homeworld (if known) and Affiliation (rebels/empire/neutral/free-lancer). The table basically looks like this:

<u>name</u>	race	homeworld	affiliation
C-3 PO	Droid	Unknown	rebels
...			

planets: contains information about the planet's Name (primary key), it's Type (gas/swamp/forest/handmade/ice/desert), and it's Affiliation (rebels/empire/neutral). The table basically looks like this:

<u>name</u>	type	affiliation
Alderaan	temperate	rebels
...		

timetable: contains Character's Name, Planet's Name, Movie in which the character visited the planet and the time of arrival and departure from the planet. The primary key is Character's Name, Planet's Name and Movie. Movie 1 represents The Star Wars, Movie 2 represents Empire Strikes Back, Movie 3 represents Return of the Jedi. Each movie has been divided into 10 time chunks and these chunks are used to define time of arrival and departure. So that, if Darth Vader visited Bespin (Cloud City) in Empire Strikes Back from the middle of the movie till it's end, the record of it will look like this:

character_name	planet_name	movie	time_of_arrival	time_of_departure
Darth Vader	Bespin	2	5	10

Query

Write SQL queries that answer the questions below (one query per question) and run them either on Microsoft ACCESS or MySQL. The query answers must not contain duplicates, but you should use the SQL keyword distinct only when necessary.

You are highly recommended to use MySQL since the software is free downloading. You can either use Microsoft Access to finish your queries, but there are some table naming differences between the files for MySQL and Microsoft Access. Please be careful when using Microsoft Access.

Query Commands

select, from, where, not, in, exists, distinct, order by, [field name] ...

Questions

Write the following SQL queries:

- Which planet does R2-D2 go to in movie3?
- How many characters visited Tatooine in movie 3?
- On which planets and in which movies has Luke Skywalker been at the same time on the planet as Darth Vader.
- Find humans that visited desert planets and droids that visited swampy planets. List the movies when it happened and the names of the characters. The output should be sorted by the movie and the character's name.
- In each movie 1, 2, and 3, which character goes to the most planets (numbers of planets)?
- For each movie, find the planet which has been traveled by the most characters (number of characters)

- g. For each race, find the character that travels the most (number of time slots) in each movie 1, 2, 3.
- h. Which planet has not been visited in either movie 1 or 2?

Submission

This is an individual assignment – no group submissions are allowed. Hand in PAPER PRINTOUT that contains your answers to the eight questions. The submission should contain queries using this format:

Name: xxx, ID: bxxxxxxxx

[Query a]

[Results of Query a]

[Query b]