-- Lab 4 Report

-- Lucas Sarweh

-- 110042658

-- I scrapped some of the questions (Thankfully I had more than 10) because they are impossible

-- to do without altering the tables

-- Lookup kanji by its meaning in English

-- Example meaning eat

SELECT Character

FROM Kanji

WHERE Unicode = (SELECT KanjiId

                FROM KanjiMeaning

                WHERE KanjiMeaning.MeaningId = (SELECT Id

                                                FROM Meaning

                                                WHERE Meaning.Means = 'eat'

                                                )

                );

-- This selects a character by referencing the Kanji in the KanjiMeaning table that have the

-- MeaningId that corresponds to the inputted meaning VARCHAR.

-- Lookup kanji(s) by its pronunciation (Onyomi / Kunyomi)

-- Example pronunciation hito

-- Kunyomi:

SELECT Character

FROM Kanji

WHERE Unicode = (SELECT KanjiId

                FROM KanjiKunyomi

                WHERE KanjiKunyomi.KunyomiId = (SELECT Id

                                                FROM Kunyomi

                                                WHERE Kunyomi.Romaji = 'hito' OR Kunyomi.Hiragana = 'hito' OR Kunyomi.Katakana = 'hito'

                                                )

                );

-- This selects a character by referencing the Kanji in the KanjiKunyomi table that have the

-- KunyomiId that corresponds to the inputted Kunyomi VARCHAR's (Either Romaji, Hiragana, or Katakana).

-- Onyomi:

SELECT Character

FROM Kanji

WHERE Unicode = (SELECT KanjiId

                FROM KanjiOnyomi

                WHERE KanjiOnyomi.OnyomiId = (SELECT Id

                                                FROM Onyomi

                                                WHERE Onyomi.Romaji = 'hito' OR Onyomi.Hiragana = 'hito' OR Onyomi.Katakana = 'hito'

                                                )

                );

-- This selects a character by referencing the Kanji in the KanjiOnyomi table that have the

-- OnyomiId that corresponds to the inputted Onyomi VARCHAR's (Either Romaji, Hiragana, or Katakana).

-- Lookup kanji by the number of strokes

-- Example stroke 7

SELECT Character

FROM Kanji

WHERE StrokeId = (SELECT Id

                FROM Stroke

                WHERE Stroke.Number = 7

                );

-- Selects a Character from a Kanji by referencing the StrokeId that goes to the Stroke table with the inputted Stroke Number.

-- Lookup kanji by its level for the JLPT (N5 – N1)

-- Example level N5

SELECT Character

FROM Kanji

WHERE JlptLevel = 'N5';

-- This Selects the Kanji's that have the inputted JlptLevel as JlptLevel is within the Kanji table.

-- What is a kanjis pronunciation (Onyomi / Kunyomi)

-- All of the next queries will have 人 as an example

-- You can replace Romaji with Hiragana or Katakana to get the pronunciation in those scripts

-- Onyomi:

SELECT Romaji

FROM Onyomi

WHERE Onyomi.Id = (SELECT OnyomiId

                    From KanjiOnyomi

                    WHERE KanjiOnyomi.KanjiId = (SELECT Unicode

                                                FROM Kanji

                                                WHERE Kanji.Character = '人'

                                                )

                    );

-- This selects a pronunciation by referencing the Id of an Onyomi entry and taking the Onyomi table's

-- KanjiId leading us to the Kanji table and referencing the Kanji Character given.

-- Kunyomi:

SELECT Romaji

FROM Kunyomi

WHERE Kunyomi.Id = (SELECT KunyomiId

                    From KanjiKunyomi

                    WHERE KanjiKunyomi.KanjiId = (SELECT Unicode

                                                FROM Kanji

                                                WHERE Kanji.Character = '人'

                                                )

                    );

-- This selects a pronunciation by referencing the Id of an Kunyomi entry and taking the Kunyomi table's

-- KanjiId leading us to the Kanji table and referencing the Kanji Character given.

-- What are a kanjis meaning

SELECT Means

FROM Meaning

WHERE Meaning.Id = (SELECT MeaningId

                    FROM KanjiMeaning

                    WHERE KanjiMeaning.KanjiId = (SELECT Unicode

                                                FROM Kanji

                                                WHERE Kanji.Character = '人'

                                                )

                    );

-- This selects a Meaning (Meaning.Means) by referencing the Id of an Meaning entry and taking the KanjiMeaning table's

-- KanjiId leading us to the Kanji table and referencing the Kanji Character given.

-- How many strokes a kanji has

SELECT Number

FROM Stroke

WHERE Stroke.Id = (SELECT StrokeId

                    From Kanji

                    WHERE Kanji.Character = '人'

                    );

-- This gives the Number of Strokes by using the Stroke Id and matching it with the StrokeId in the Kanji table

-- based off of what kanji you give.

-- What parts or radicals a kanji is made up of

SELECT RadicalKanji

FROM AreMadeOfKanji

WHERE AreMadeOfKanji.LargeKanji = (SELECT Unicode

                                    FROM Kanji

                                    WHERE Kanji.Character = '人'

                                    );

-- This gives the Radical Kanji by using the AreMadeOfKanji relation and matching the LargeKanji with the given Kanji in the

-- subquery and selecting the RadicalKanji associated.

-- What is an example of the kanji in a sentence

SELECT Sentence

FROM Examples

WHERE Examples.Id = (SELECT ExampleId

                    FROM KanjiExamples

                    WHERE KanjiExamples.KanjiId = (SELECT Unicode

                                                    From Kanji

                                                    WHERE Kanji.Character = '人'

                                                    )

                    );

-- This selects an Example Sentence by referencing the Id of the Examples table tied to the Sentence going to the

-- KanjiExamples table which has the Id of the Kanji we inpputed to get an example.