SQL BRIDGE COURSE FINAL PROJECT

CUNY SPS MSDA Bridge Course 2016

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Overview

1. Project objective
2. Entity relationship diagram
3. Building the database in MySQL Workbench
4. User interface mockup

The objective: create a database of buildings and energy types

- The goal of this final project is to create a database using MySQL Workbench. The database should store data on
  - Buildings
  - Energy types and categories
  - Which types of energy are used by each building

- In addition, recommendations should be provided on
  - The user interface for updating the database
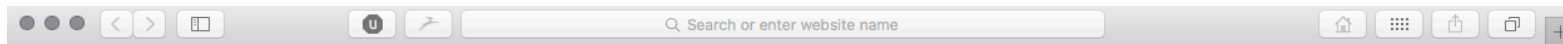 - Reports tracking changes in energy type preferences over time

Entity relationship diagram shows the structure of the "Buildings" database
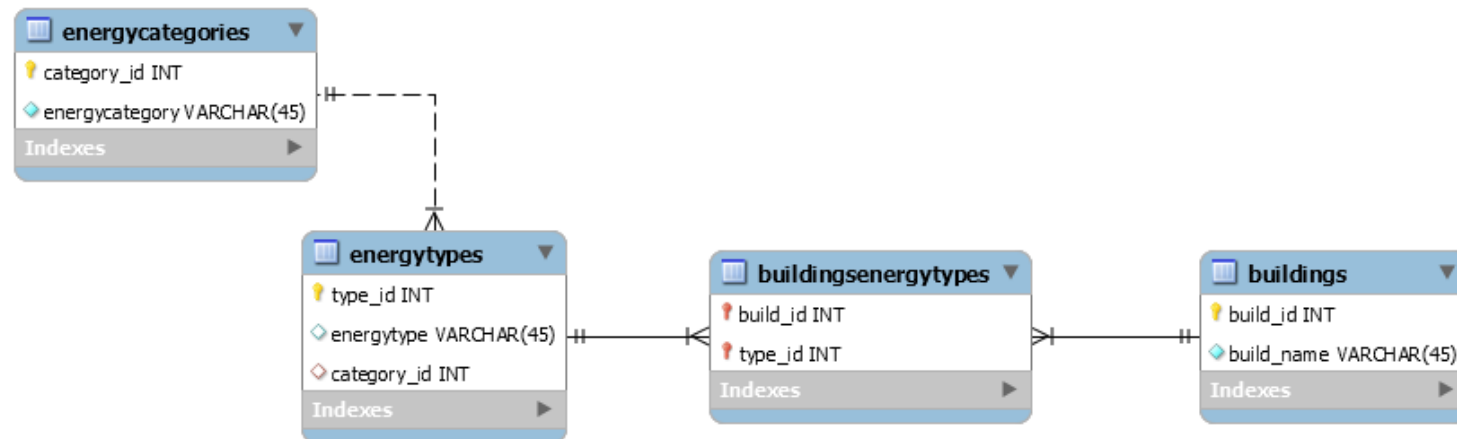
Created using MySQL Workbench modeling tool

Building the database in MySQL Workbench

User Interface Mockup

Browser window containing:

Buildings and Energy Types

Add or modify building data

Search for a building name…

ID	Building Name	Energy Type	Energy Category	Edit
1	Empire State Building	Electricity, Steam, Gas ▼	Fossil ▼	✏
2	Chrysler Building			✏
➕	Add a new building…			

Energy Type dropdown:
- ☑ Electricity ✏
- ☐ Steam ✏
- ☐ Gas ✏
- ☐ Solar ✏
- ☐ Add a new type…

Energy Category dropdown:
- ☑ Fossil ✏
- ☐ Renewable ✏
- ☐ Add new category

Batch edit

Upload CSV

RESET   **SAVE CHANGES**

Side notes:
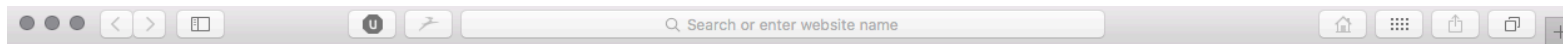- Energy category is validated upon entering energy type
- Edit button to update any field or delete the record, the same for energy type and category
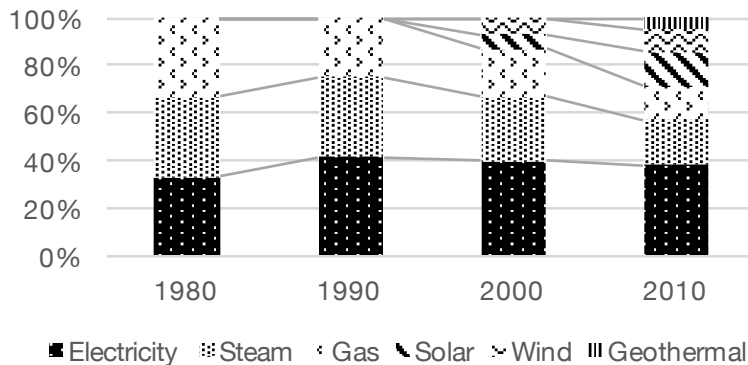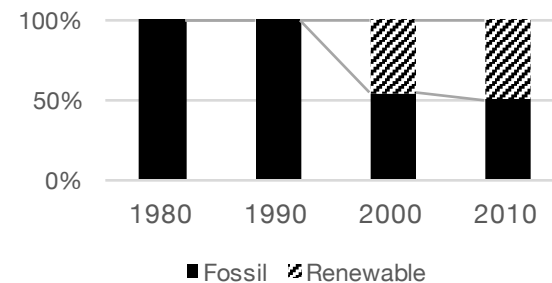
User Interface Mockup

Buildings and Energy Types
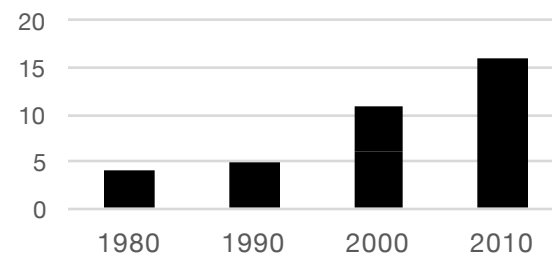
Report on energy usage

Share of energy type in total usage by count of buildings ▼

Share of category in total usage by count of buildings

Total number of buildings collected

The year of the installation / recording should be added to the DB

The annual total power consumption per energy type and building should be recorded to allow a different filtering

SHARE   PRINT