

MWC3 2023 Database Design Problem Statement

You have been tasked with designing a back-end database for the Michigan Resident Association. As an experienced database designer, you are confident you will be able to design an efficient database which minimizes redundant data. The front end to this form on the following page.

The following outlines several important items you need to take into account when designing and implementing your database.

1. As the population of Michigan is ~10 million, and with several thousand more applicants expected each year, the database should minimize the amount of redundant information stored.
2. **Membership Level:** Required selection (only 1) with no default; may have additional selections in the future
3. **Phone:** 0 or more allowed, per resident
4. **Email Address:** 0 or more allowed, per resident
5. **Address:** 1 required, per resident, but the database should allow for additional addresses, per resident. All addresses must be Michigan addresses; no other state addresses allowed.
6. **Name:** Required full name, future changes allowed; names up to 100 characters should be allowed
7. **1 form per person**

Deliverables

1. The relational data schema designed to handle this form.
2. The SQL script used implement the database.

**Michigan Resident Association
Membership Drive**

Name	

Address	
Line 1:	
Line 2:	
City:	County:
Zip Code:	

Phone	
____.____.____	Cell Home Work Other
____.____.____	Cell Home Work Other
____.____.____	Cell Home Work Other

Email Address	
____@_____	Personal Work Other
____@_____	Personal Work Other
____@_____	Personal Work Other

Membership Level	
Born in Michigan	<input type="radio"/>
Resident 1 to 4 years	<input type="radio"/>
Resident > 5 years	<input type="radio"/>
Resident > 10 years	<input type="radio"/>
Resident > 20 years	<input type="radio"/>
Resident > 30 years	<input type="radio"/>
Student	<input type="radio"/>