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ACM Database

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This database was quite a challenge to design and felt like a massive puzzle that needed to be solved, and it took me hours just to “solve” that puzzle to the best of my ability. In solving this puzzle I made several different versions of my database, and had to completely scrap and redesign 3 times, in doing so I learned a lot more about databases than I ever wanted to know, and I could probably do a decent job as a database manager, but not a great one.

Diagram

Description automatically generated

This is the final design of the database that was the best I could think of the idea behind a lot of it was just how simple can we make it, but still retain most of the data that is needed. I firstly decided to shorten the Member table by about 10 Columns, since it was way too big as the project came, and I honestly didn’t want to make up 10 different “tribe” names for our made-up Indians that are members. I also did my bests to keep the other tables clutter free, and just add the bare minimum information, to again keep a simple and clean design that can be worked with a little easier. The hardest design choice was trying to get the ACM coordinator to be the only one that responded to the country chairman, the ultimate idea was that all coordinators would respond to the ACM coordinator, and only they would respond to the country chairman, but this proved difficult to implement, so the idea was scrapped for a simpler version, where you simply know the title of the coordinator, and there is no physical connection to anyone else, sadly.

This database works by starting at the State Chapters, and works its way out from there, once I got all the necessary states in the database, and added a country chairman, it was simple enough to add in coordinators, cities, sub entities, and members. The members are kind of the core to everything, but they all ultimately are under a coordinator, which is under the country chairman.