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CMSC 461
Project 1 Report and ERDiagram

In the ISA relationship (degree 3) between the Person, Folk and Election_Staff entities is bound by total participation and is overlapping. Which allows a person to be either a folk, election staff or both.

In the ISA relationship (degree 3) between the Place, Residence and Voting_Center entities is bound by total participation and is disjoint. This adds constraints place to being either a residence or Voting center but not both.

In the ISA relationship (degree 5) between the Election_Staff, Judge, Clerk, Administrator, and monitors entities is bound by total participation and is overlapping (its says can be which is an attempt at ambiguity. I am going interpret this as meaning election staff can be these four things or something else that may be added in the future). Which allows an Election_Staff members to be either a Judge, Clerk, Administrator, monitor or a combination of any of them. I believe election staff member can have a different role at different voting centers. My database configuration allows for that.

Each and every Person (a folk, election staff or both) resides in a residence. Many Persons can reside in one residence. For better understanding, each person has a primary residence. Multiple Persons can share the same primary residence.

The voter_registry relationship connects many Persons (a folk, election staff or both) to many Voting_centers to one cast_vote who confirms the validity of a vote attempt to a single ballot. The voter_registry stores the desired voting date. The voting center will use attributes from all four entities so it would make sense that it would be a relationship between them all.

Election staff members have partial participation in the scheduled relationship as there is a possibility that a staff member is not scheduled at all. Many election staff members can be scheduled to many different voting centers. An election staff member may be scheduled to fill different roles at different voting centers. i.e. An election staff member may be scheduled to fill the role of a judge at one voting center and the role of an administrator at another voting center. My database configuration allows for that.

My database configuration allows election staff members to vote as they are also folks.

Judges Clerks Administrators and monitors have their own id in addition to their staff id as the different roles have different clearance permissions and or access to different things.

Election ER Diagram

