Entity-Relational Diagram (ERD)

The ERD (Entity Relationship Diagram) shows the connections between the tables and their attributes. We chose, what we considered to be, the necessities for the KHBPA in terms of recording donations, keeping records of polls conducted, data about the members, and other important considerations when creating the database. We used the class diagram as our blueprint for creating the database and then illustrating their connections via the ERD. The class User, for example, was used to construct the KHBPA Member table which contains information regarding each member of the KHBPA. Each member is given a unique ID to identify them and their names, addresses, phone numbers, and other important information about the KHBPA's members are stored in the Table named KHBPA Member. The KHBPA table has information regarding the KHBPA staff. Throughout each table, we created primary and foreign keys to use for the ERD. We repeated this process for each table and then established their relationships. We categorized the attributes into tables and then converted them into 3NF or Third Normal Form. Normalization is a process of eliminating redundancy and avoiding update, insertion, and deletion anomalies. You start by checking if the database is in 1NF, which means that there are no repeating fields, the primary keys are clearly defined, and all attributes are dependent on the primary key. The next step is to convert the database into 2NF, which means that there are no partial dependencies remaining. Partial dependencies are non-key attributes that are partially dependent on a candidate key. The final step is to convert the database into 3NF, which means that the transitive dependencies have been removed. A transitive dependency is when an attribute functionally depends on another non-key attribute. These were the steps we took for creating the ERD for the KHBPA.

Relationships for KHBPA Database-1
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