Rough Draft Test Plan

* For the database we believe these functions should be tested
  + Test input and output functionality.
  + Can the database be coded from scratch.
  + Test the limits on fields in the database such as duplicate data being entered in the database.
  + Test to make sure that participants with the same DOB, address, and other data are tracked so there is no confusion later down the road.
  + Test to make sure privileges for admins are exclusive.
  + Test for security vulnerabilities such as encryption, SQL injection, cache poisoning, etc.
  + Test the database by breaking it.
  + Testing zipcodes with zeros
  + Testing zipcodes with less than 5 numbers
  + Testing zipcodes with letters
  + Test that john = John = JOHN. Test that capitalization will not dictate the creation of duplicate entries
  + Test that all fields that are not allowed to be left blank are filled before submission
  + Test that the information inputted into the fields make sense for that particular field
  + Test that phone numbers have no letters
  + Test that phone numbers are 10 digits for U.S. numbers
  + Test that phone numbers are able to be more than 10 digits for numbers outside the U.S.
  + Test street numbers to make sure zero is not acceptable
  + Test that first character is a number for street number
  + Test the first number is not zero for street address
  + Test the check constraints for sex and race
  + Test for guessing of the DOB of a person/child
* For the intake packet we believe these functions should be tested
  + Test to make sure the intake packet can be exported to excel and printed.
  + Test the fields in the intake packet to make sure they function correctly.
  + Test to make sure all fields are filled.
  + Test to make sure all fields are correctly input.
  + Test to make sure the intake pdf form can be retrieved from the database.
  + Test pdf form to check if they allow submission with a blank entry on a field.
  + Test to generate a message for the user to let them know that if DoB is left blank a random one will be generated for them as an identifier.
* For the GUI we believe these functions should be tested.
  + Test for functionality of all the buttons on the GUI and make sure they all go to the correct page.
  + Test the functionality of input field
  + Test the intuitiveness of the GUI, it should be easy to learn.
  + Test to make sure the GUI can connect to the backend database.
  + Test to make sure users cannot login into the GUI with admin privileges and see information that is restricted to them.
  + Testing the phone, number input on the GUI. If neither are entered then a message should come up asking about it and commit based off of the answer.
  + Do a volume and performance test to make sure that a large amount of users can login at once and still have smooth functionality.
  + Test security of the GUI to make sure a redirect attack or something of the nature cannot infiltrate the code.
* For the attendance sheet we believe these functions should be tested:
  + Test to make sure the attendance sheet can be exported to excel and printed
  + Test to make sure the fields in the attendance sheet function correctly
  + Test to make sure all fields are filled or allows blanks
    - If left blank - like “Are you sure you want to leave the DoB blank.. if you do, a fake DoB will be generated for the purpose of identifying this person as unique from others with the same or similar name”
  + Test to make sure all fields are correctly input.
  + Test to make sure the attendance sheet pdf form can be retrieved from the database
    - Only if we decide to add the scan of a paper form and include it in the database.
* For the reporting sheet we believe these functions should be tested:
  + Test to make sure that all calculations are correct
  + Test to make sure that all data is exported into correct fields.
  + Test to allow a blank field to be accepted.
  + Test to make sure a zero will be accepted in a field.
  + Test for what happens when M for male is entered or F for female is. They need to be able to convert to the right correlations.

A lot of this test plan was applicable to the code we were testing, but there was also some tests that were not. We are keeping all of the test recommendations in here for future reference.