Testing Plan

All Planned Unit Tests

➢ Unit test for comment creation function
➢ Unit test for search function
➢ Unit test for user creation function
➢ Unit test for the dog entries function to verify that new dog entries are properly created and that the class will throw exceptions if improper inputs are given
➢ Unit test for the shelter entries function to verify that shelter entries are created and stored and that the class will throw exceptions when improper inputs are given
➢ Unit test for the login function to verify it properly accepts usernames and passwords
➢ Unit test for the signup function to verify that testers can properly create user accounts
➢ Unit test for moderator`s ability to delete comments
➢ Unit test for administrator`s ability to approve and deny requests placed by normal users
➢ Unit test for normal user`s ability to create and send new requests to administrators.

All Planned Integration Tests

➢ Integration test for the entries and comment function to verify that comments can be made for specific entries and will load with those entries.
➢ Integration test for how the search class works with the shelter entries. This test will examine how different searches interact with the dog entries table and shelter entries table.
➢ Integration test for how the login, signup, and user classes all work together. This test will verify that users can create an account that is either a normal account, administrator account, or moderator account and then login with that account.
➢ Integration test for how the user request class and the administrators approve and deny function works together. This test will verify that users can make requests for new entries which can then be approved or denied by administrators.

All Planned System Tests

➢ This test will have a tester create new accounts as a normal user, a moderator, and an administrator. The tester will then post a comment and send a request for a new entry as a normal user. The tester will then use their moderator account to delete the comment they just posted before using their administrator account to approve the request they sent as a normal user.
➢ This test will have the tester use an administrator account to create a new database entry then search for that entry and make several comments on the entry, before using their moderator account to delete some of those entries and verifying the entries are properly deleted and no longer show up.

White Box Testing

Tester: Kyle Gould

1. We will test the search function by performing searches and viewing the code to see how searches are generated. We will use these observations to determine if any entries are being excluded from a search when they should not be.

2. We will test the moderator`s ability to delete comments and that deleted comments are properly removed from the comments table and are no longer linked to their entry.

3. We will test the administrator`s ability to add new entries and verify that those entries are properly stored in the entries table and are accounted for in searches.

Grey Box Testing

Tester: Siyi Yu

1. Testing entry table to verify that new entries can be properly added and stored in the most efficient manner. We will do this by creating new dog and shelter entries and viewing how they are stored in the entries table.

2. We will test the comments table to determine if the comments being created are being stored in the most efficient manner. We will do this by creating new comments and viewing how they are stored in the comments table.

3. We will test the user table to verify efficiency by creating new user accounts and viewing how they are stored in the user account table.

Black Box Testing

Tester: Chris Santos

1. We will test the register and login features of our application by creating new users and logging in as them. Additionally, we will try to register with a username that is already being used, the application should not allow this.

2. We will test the search feature for all three databases. We will plug in values for known entries, and the entries should appear. We will also plug in values for entries not in the database, these searches should result in nothing appearing.

3. We will test the add new entry feature. We will login as an administrator and add a new entry to the database. We will then use the search feature to check if the new entry was successfully added.