Summary:

FungIsle is loaded with applications. Although there are only eight main applications, each of these have several sub-applications if you can call them that. For instance, the attack application has two options for the hero to attack, five places that could be attacked, and animal that can attack with the hero. Combining all the possibilities leaves us with twelve possible ways to use the attack application. Hence, if you include all the main applications including the query bar, there are a large amount of ways to utilize the FungIsle game.

Main Application Summaries:

Reset Database

The Reset Database application resets the database back to the basic starting point of the game. It does this be setting all the heroes' health (and boss' health) to 1000, and all the Saladorians' health to 100. It also sets all the main villages' statuses to suppressed (Northland, Southland, Eastland, Westland, and Hell's Cave), except for a few other places and the heroes' base. In addition, this application sets all animals' health to 200 and sets all the heroes' current location to "TreeBase." Finally, it deletes all rows in the Human_has_Food, Animal_has_Food, and Human_fights_Human tables.

Query Database

This application is simple in concept. It allows users experienced in MySQL to simply query all the tables in the FungIsle database to get any information that they may be interested in. Although this tool is very powerful to knowledgeable users, it is also restricted in that users are not able to perform SQL injections or modify the database tables due to this application's "select-only" connection to the FungIsle database.

Move

This application allows users to send heroes to different villages or places on FungIsle if they are not currently involved in battle. It is assumed that all the hero's pets will follow along as well. This application will modify the selected hero's current position attribute to reflect the change in the hero's position. As stated above, if a character is currently involved in a conflict in one village, they will be unable to move. In addition, heroes will not be allowed to move to Hell's Cave (which is the final "Boss Dungeon") unless they have freed all of the villages.

Attack

This application is the most computationally complex main application in FungIsle. It oversees performing an attack of a hero on a Saladorian soldier or boss. It does this by calculating the damage thrown on a hero, saladorian, animal, or Saladorian boss and then reducing that human's health by the appropriate amount if they do not have enough defense. Similarly, this application also calculates the damage that a character provides and adds together damage (in the case of a hero and their pet). This application also updates heroes' current position depending on where they move and changes villages' statuses once they are freed by the heroes. Last of all, the Attack application adds and updates rows in the Human_fights_Human table corresponding to fights between characters.

Scavenge

The Scavenge application allows animals and heroes to scavenge the nearby fields and forests adjacent to a village for mushrooms. If a hero or animal is currently involved in a conflict with Saladorians, they will not be able to scavenge. Once a hero or animal has collected a mushroom, they will put it in their backpack. The application does this by adding a row or updating a row (if it already exists) corresponding to that hero or animal and the mushroom they collected. Humans can collect up to five of the same mushroom whereas animals can only collect up to two. Finally, it is important to note that this application of functionality covers both an animal scavenging and a human scavenging – both of which are implemented using separate drop-down lists and buttons.

Eat

The Eat application allows heroes and animals to restore some of their health by eating the mushrooms they found via the scavenge application. Users will be able to select a mushroom from the drop-down list of the Eat application and choose the mushroom that they will feed to the selected hero or animal. Upon eating the mushroom, the hero or animal will have their health restored by 100, unless that would put their health above their full-health in which case the mushroom will still be consumed but only contribute up to their max-health. If a hero or animal is dead (their health is 0), they will not be able to consume a mushroom unless it's the "Almighty" mushroom which can even revive an animal or human. The Almighty mushroom can also restore health up to 1000. Finally, it is important to note that this application of functionality covers both an animal eating and a human eating – both of which are implemented using separate drop-down lists and buttons.