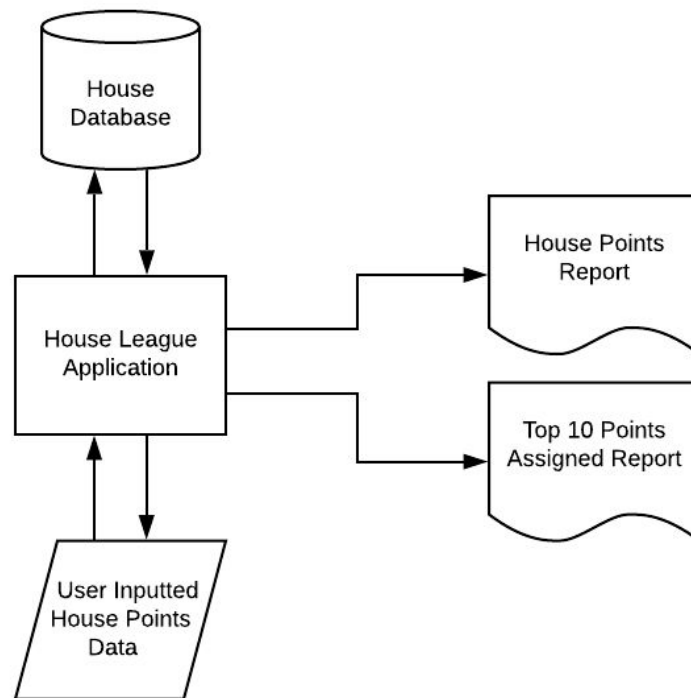


Criteria B: Designing

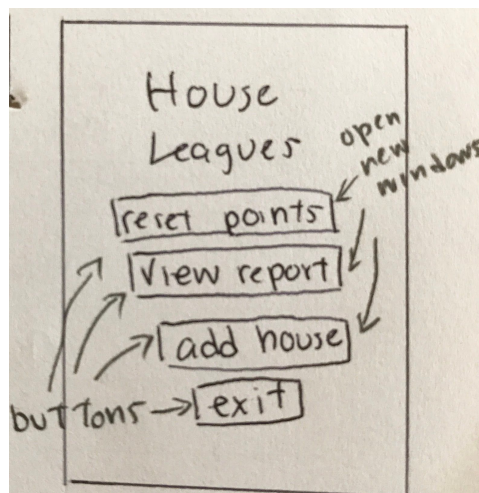
System Flow Chart



User Interface Design

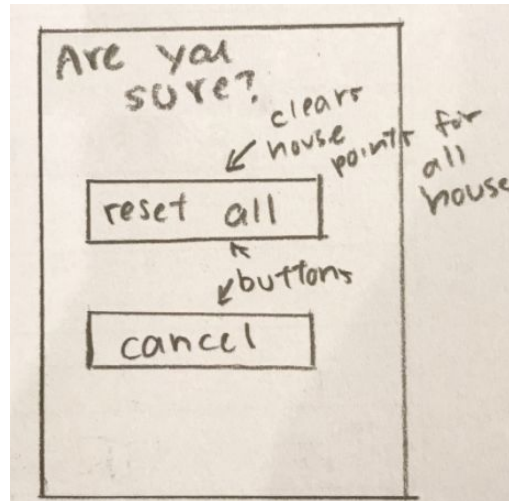
Homepage:

The homepage includes 4 buttons. The "reset points" button will open a window that allows the client to reset house points for all houses at once. The "view report" button will open a window with 2 buttons to two different reports. The "add house" button opens a window that allows the user to add a new house by setting the name and color of it. The "exit" button will allow the user to exit the program.



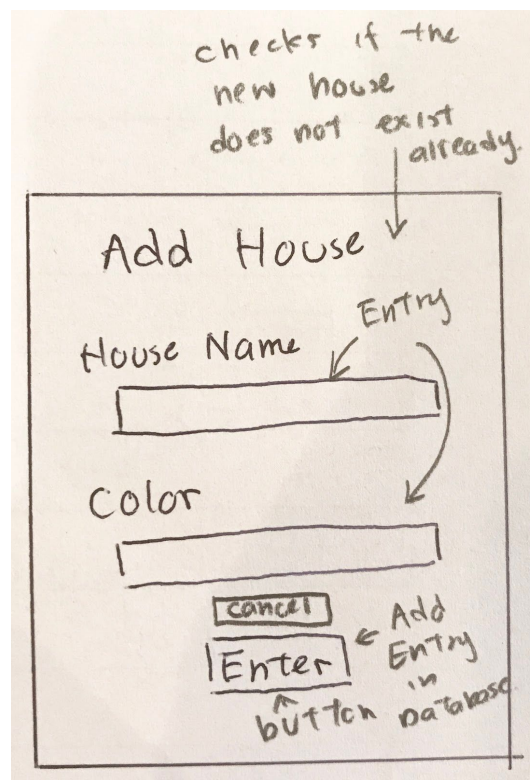
Resetting Points Windows

The users can reset the points of all houses by clicking the “reset all” button. If the user presses the “cancel” button, this window will be closed and will return to the homepage.



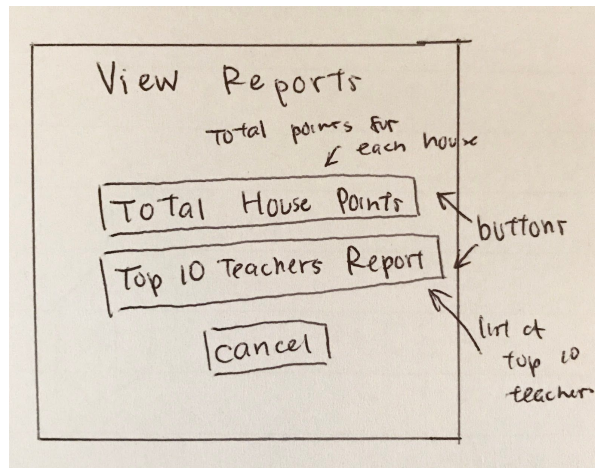
Add house Window

The user can enter the name and color of a new house by entering the values in the entry boxes. When the “Enter” button is pressed, and the values are valid, the new house will be added. If the “cancel” button is selected, the window will close and return to the home page.



View Reports Window

This window consists of two buttons. The "Total House Points" button will open the table with the houses and the total house points. The "Top 10 Teachers Report" button will show the list of top 10 teachers assigning points.



Total House Points Report

The window shows the table of all the houses and the total house points that they have

Total House Points			
Hydra	Shelorg	Naga	Wyvern

Sample Report

Total House Points			
Hydra	Shelorg	Naga	Wyvern
286	385	345	302

Report of top 10 teachers:

The window shows the list of the top ten teachers assigning the most house points and shows their name, house, the house of the receiver, the points assigned, and the date.

Top 10 Teachers Assigning House Points.						
#	First Name	Last Name	Teacher House	receiver house	Points	Date
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

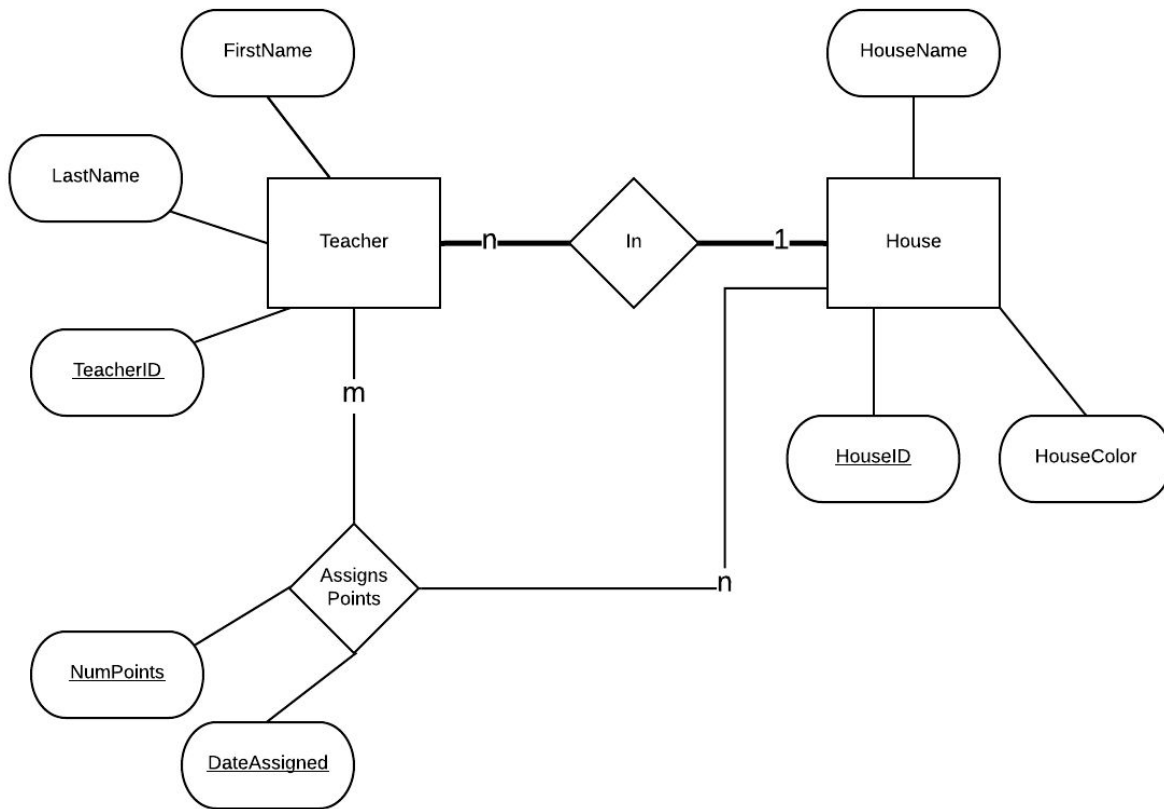
scroll bar
if window gets smaller

Sample Report

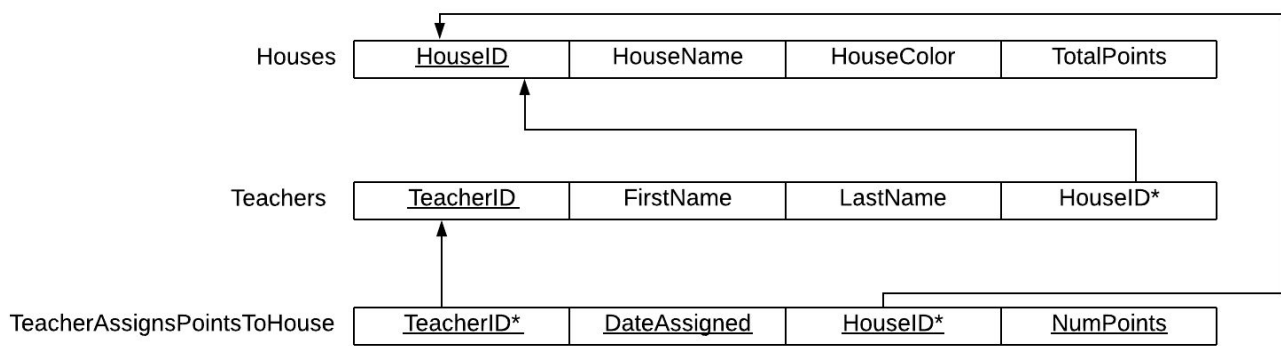
Top 10 Teachers Assigning House Points.						
#	First Name	Last Name	Teacher House	receiver house	Points	Date
1	Bilal	Khan	Shenlong	shenlong	80	Aug 21, 2019
2	Jodi	Fetterolf	Shenlong	shelong	75	Sep, 7, 2019
3	Bilal	Khan	shenlong	wyvern	70	Jan, 14, 2020
4	Nomer	Adora	Hydra	naga	50	Oct, 9, 2019
5	Melinda	Berry	Hydra	Hydra	45	Oct, 31, 2019
6	Justin	Milligan	shenlong	shenlong	30	Sep; 2, 2019
7	David	Tan	Hydra	naga	20	Dec, 1, 2019
8	Erica	Neal	Naga	shenlong	15	Jan, 11, 2020
9	Erica	Neal	Naga	hydra	10	NOV, 1, 2019
10	Bilal	Khan	shenlong	Shenlong	5	NOV, 5, 2019

Data Design

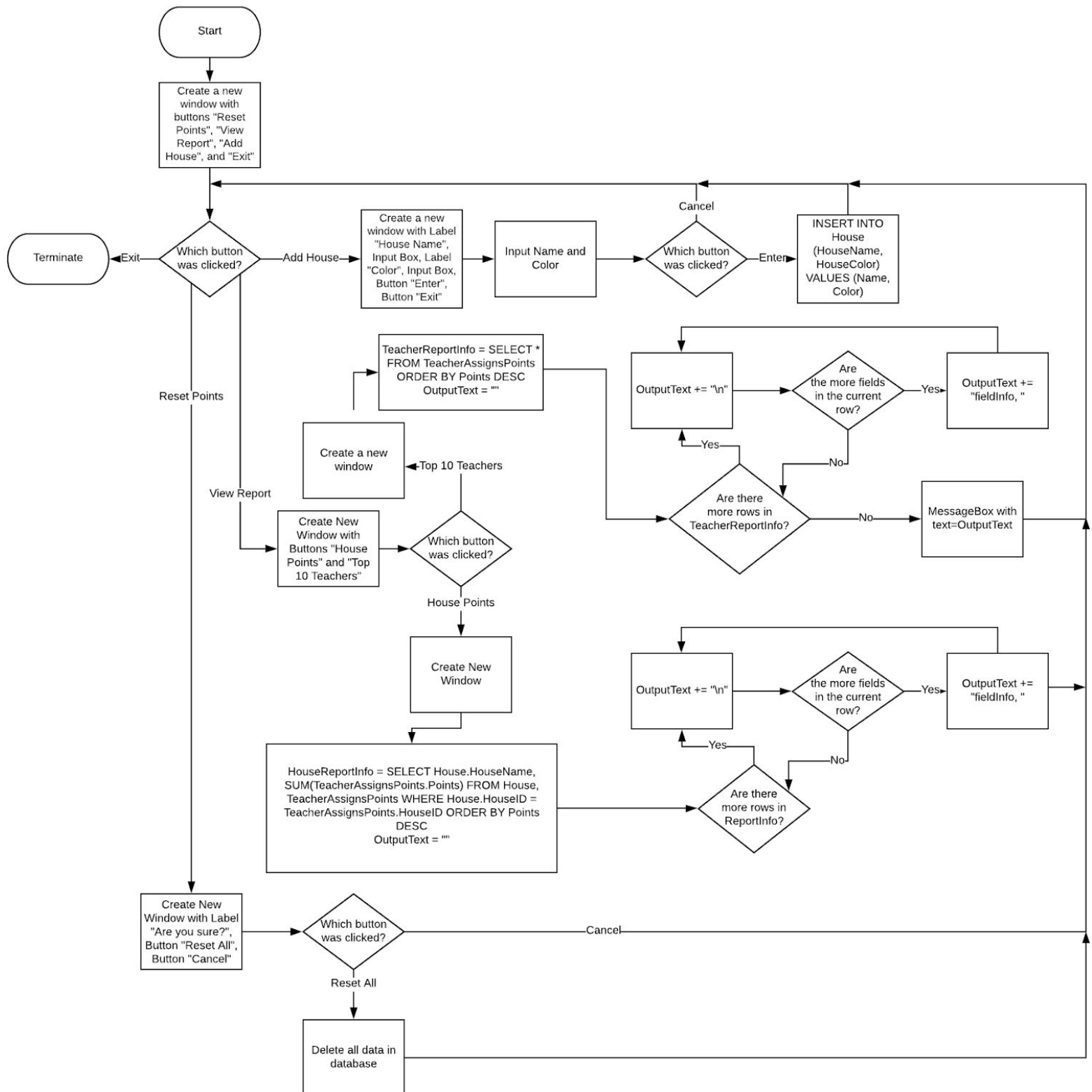
ERD



Relational Mapping



Algorithm Design



Test Plan

Actions to be Tested	Method of Testing	Expected Result
The menu buttons on the homepage functions	Click on the buttons, “reset points”, “add house” and “view report”.	3 new windows open with the titles, “Are you sure?”, “Add House”, and “View Reports” respectively.
The table is visible and clear to the user	Click on both buttons on the “view reports” window	<ul style="list-style-type: none"> - The table of total house points is shown with all the house names and the total points. - The table of top 10 teachers assigning most points is shown with their names, house, the house of the receiver, the points assigned, and date.
The report is clear and is in a table format	Click on both the “Total House Points” and “Top 10 Teachers Report” buttons on the “View Reports” window and check whether the reports are presented as a table and are easy to understand.	<ul style="list-style-type: none"> - In the “Total House Points”, the table has all the names of the houses on the first row, the total house points for each house in the second row. - In the “Top 10 Teachers Report”, the table has 7 columns. Each row is separated by the rank of the teachers assigning points.
If there are less than 10 teachers assigning points, the table still shows	Click on the “Top 10 Teachers Report” button on the View Reports” window.	The table still has 7 columns and rows separated by the rank of the teachers assigning points. There will not be 10 teachers and show all the teachers that assigned the points ordered by the most points assigned in them.
If there are no houses, the “Total House Points” will have an empty table, but still exists	Click on the “Total House Points” button on the View Reports” window when there are no houses added.	The “Total House Pinnts” window opens with an empty table.
Add a new house and its color when demanded	Enter a new house name and color in the entry box and press “enter”. Then go to the database in the DB browser and check if the new values are added.	The new house name and the color is added in the database under the House table.
The new house is added to the “Total House Points” table.	Click on the “Total House Points” button on the “View Reports” window when the new house is added.	The number of columns in the table increases and includes the name of the new house and the house points if they have.

The “cancel” button functions	Once the values are entered, click on the “cancel” button.	The entries in the entry boxes are cleared and the “add house” window should close and go back to the homepage.
Reset house points	Click the “reset points” button on the homepage and click the button to reset all points for all houses.	The total points for each house are 0 for all houses in the “TeacherAssignsPointsToHouse” table in the DB browser.
The points are reset in the “Total House Points” once the user reset the points from the “reset points” window.	Click on the “Total House Points” button on the “View Reports” window once points are reset.	The first row still shows all the names of the houses but the total points for each house are 0.
Entry error is detected when numerical values are entered in the “House Name” and “Color” entry boxes in the “Add House” window	<ul style="list-style-type: none"> • Enter “1” • Enter “12344” • Enter “N6t2” 	A message box pops up for each entry with a message, “Invalid entry. Please make sure the entries are only using alphabets.”
Entry error is detected when the entries include a name that already exists.	<ul style="list-style-type: none"> • Enter “Hydra” • Enter “Naga”, • Enter “Shenlong” • Enter “Wyvern” 	A message box pops up for each entry with a message, “This house name already exists. Please enter a new house name. ”
Entry error is detected when the entries include a color that already exists.	<ul style="list-style-type: none"> • Enter “Yellow” • Enter “Red” • Enter “Green” • Enter “Purple” 	A message box pops up with a message, “This house color already exists. Please enter a new house color. ”
The “cancel” buttons functions	Click on the “cancel” button in the “Add House”, “Reset Point”, and “View Reports” windows.	The window where the button is clicked closes and returns to the homepage without a message or interference.
The “exit” button functions	Click on the “exit” button on the homepage.	The homepage is closed without any message or interference and the program ends.