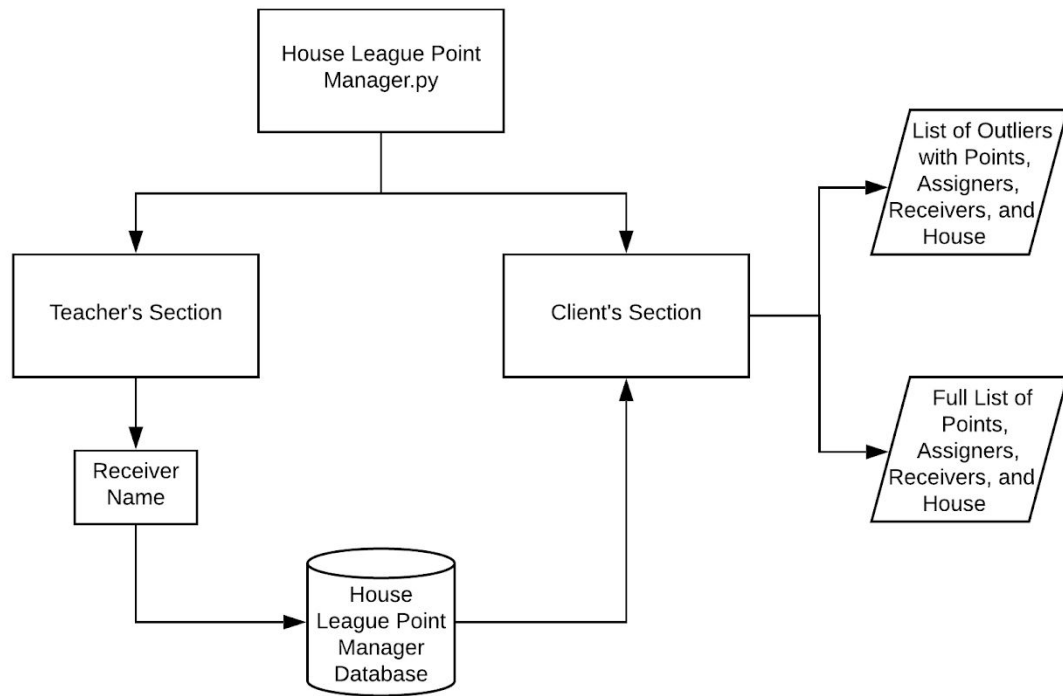


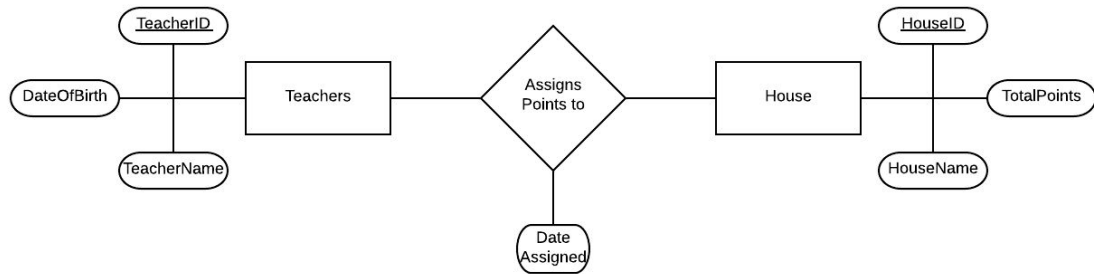
CRITERIA B: Design

System Flowchart



ERD and Relational Map

ERD



Relational Map

Teacher

<u>TeacherID</u>	TeacherName	DateOfBirth
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Transactions

<u>TransactionID</u>	<u>TeacherID</u>	<u>HouseID</u>	Points	DateAssigned
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House

<u>HouseID</u>	HouseName	TotalPoints
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(see Appendix 1 for DDL)

Pseudocode

function addPoints():

 randomID = random number

 teacherName = current selection of dropdown menu A

 houseName = current selection of dropdown menu B

 pointsAmount = input of input box A

 insert into Transactions(randomID, teacherName, houseName, pointsAmount)

function viewPoints():

 transactionsTable = new Table()

 output "TeacherName" for column 0

 output "HouseName" for column 1

 output "PointsAmount" for column 2

 sort Transactions by points from highest to lowest

 loop i from 0 to 9 inclusive-inclusive:

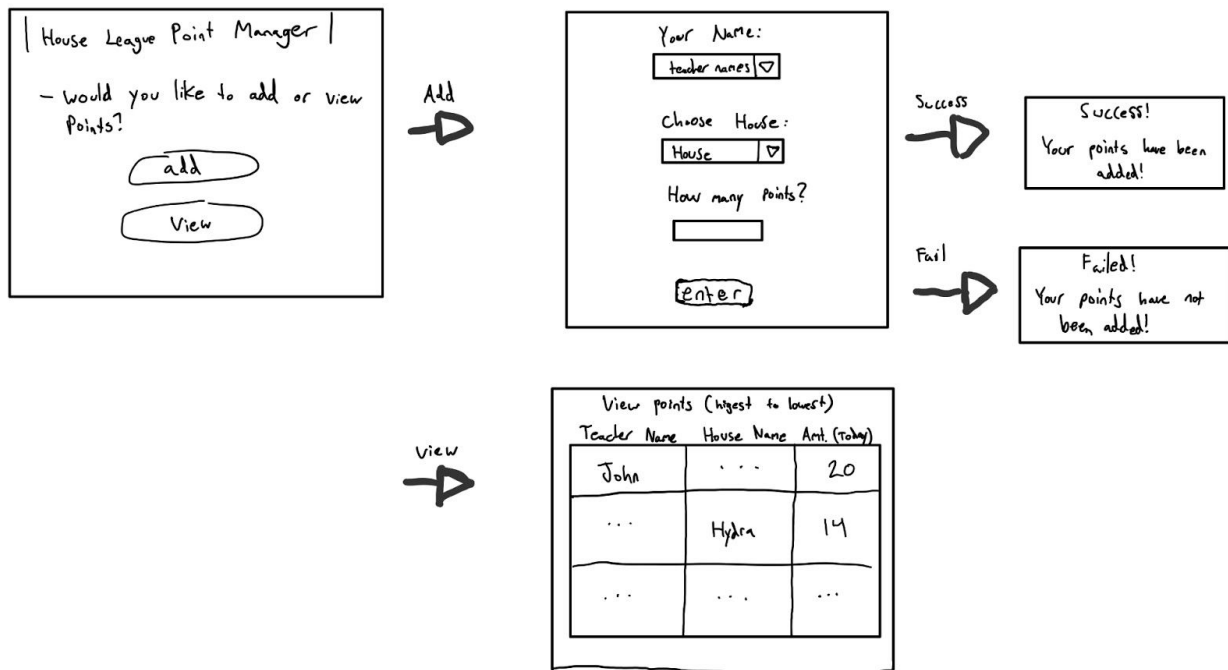
 loop j from 0 to length of index i of Transactions inclusive-inclusive:

 output index j of index i of Transactions in column i of

 transactionsTable

 output transactionsTable

User Interface Design:



Test Plan

Success Criteria	Expected Action	Expected Result
Creates a database that will store all the user inputs, including House League points assigned, name of the teacher who assigned the points, name of the student who received the points.	Tests if the program opens and the first window is displayed.	Launches the program successfully and the first window is displayed.
	Checks if the window includes a title called "House League Point Manager" on top.	The title is included.
	Checks if the first window includes a question and 2 buttons to display options for the user: adding points and viewing points.	There is a question that pops up asking "Would you like to add or view points?" There are two buttons below the question for the user to choose: the top button is "add" and the bottom button is "view."
Accepts the user input for the amount of House League points given	Checks if there are questions asking the names, houses, and points assigned.	Type some numbers in the input box.

out, who assigned it, and who received it.	Under “Your Name,” checks if there is a drop down menu that includes all the teachers’ names.	When clicking on the drop down menu, all teachers’ names are included.
	Under “Choose House,” checks if there is a drop down menu that includes all the houses.	When clicking on the drop down menu, all houses (Shenlong, Wyvern, Naga, Hydra) are included.
	Under “How many points,” checks if there is an empty box for user entry.	When clicking on the empty box, the user can type in anything (numbers, letters, symbols).
	Checks if there is a button called “Enter” at the bottom of user entry that includes a message box right after the user has clicked the button.	When clicking on the “Enter” button, a message box appears that either says “Your entry has been successfully added to our database” or “Your entry has not been added to our database. Checks for any missing entry or an invalid value.”
Accept only valid user entries into the database.	Enters a positive integer amount of House League points.	The program accepts the user input and records it into the database.
Decline every other user entry that isn't valid.	Enters a negative amount of House League points.	When the user presses the “Enter” button, a message box pops up saying that the user entry has not been added. The entry may have been missing or has an invalid value.
	Enters a positive float/fraction amount of House League points.	
	Enters a boolean value into House League points.	
	Enters a string value into House League points.	
Displays a menu for teachers that want to	Displays a dropdown menu for teacher names.	The entity is correctly displayed and the user is

assign house points.	Displays a dropdown menu for house names.	able to enter in data.
	Displays an input box that allows the user to type in the amount of points they have assigned.	
	Click the enter button with valid values.	An entry is added into the Transactions database.
Displays the top 10 highest points given transactions in a table.	When the user presses the "View" button in the first window that pops up, a table including the teacher's name, house name, and amount of points given will be shown in the order from highest to lowest points given.	A database showing the teacher's name, house name, and the amount of points given sorted from highest to lowest will display.

House League Point Manager

- would you like to add or view Points?

add

view

Add
→

Your Name:

teacher names ▾

Choose House:

House ▾

How many points?

enter

Success
→

Success!
Your points have been added!

Fail
→

Failed!
Your points have not been added!

view
→

View points (highest to lowest)

Teacher Name	House Name	Amnt. (today)
John	...	20
...	Hydra	14
...