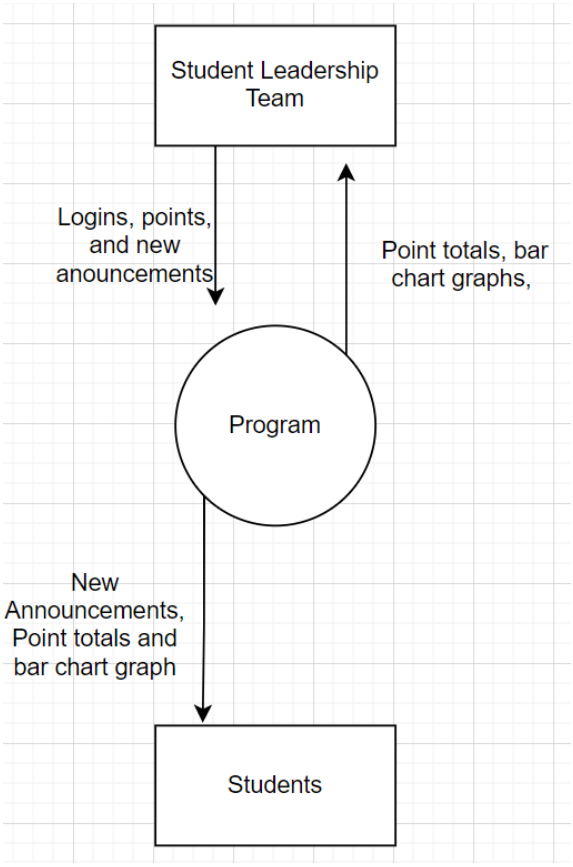
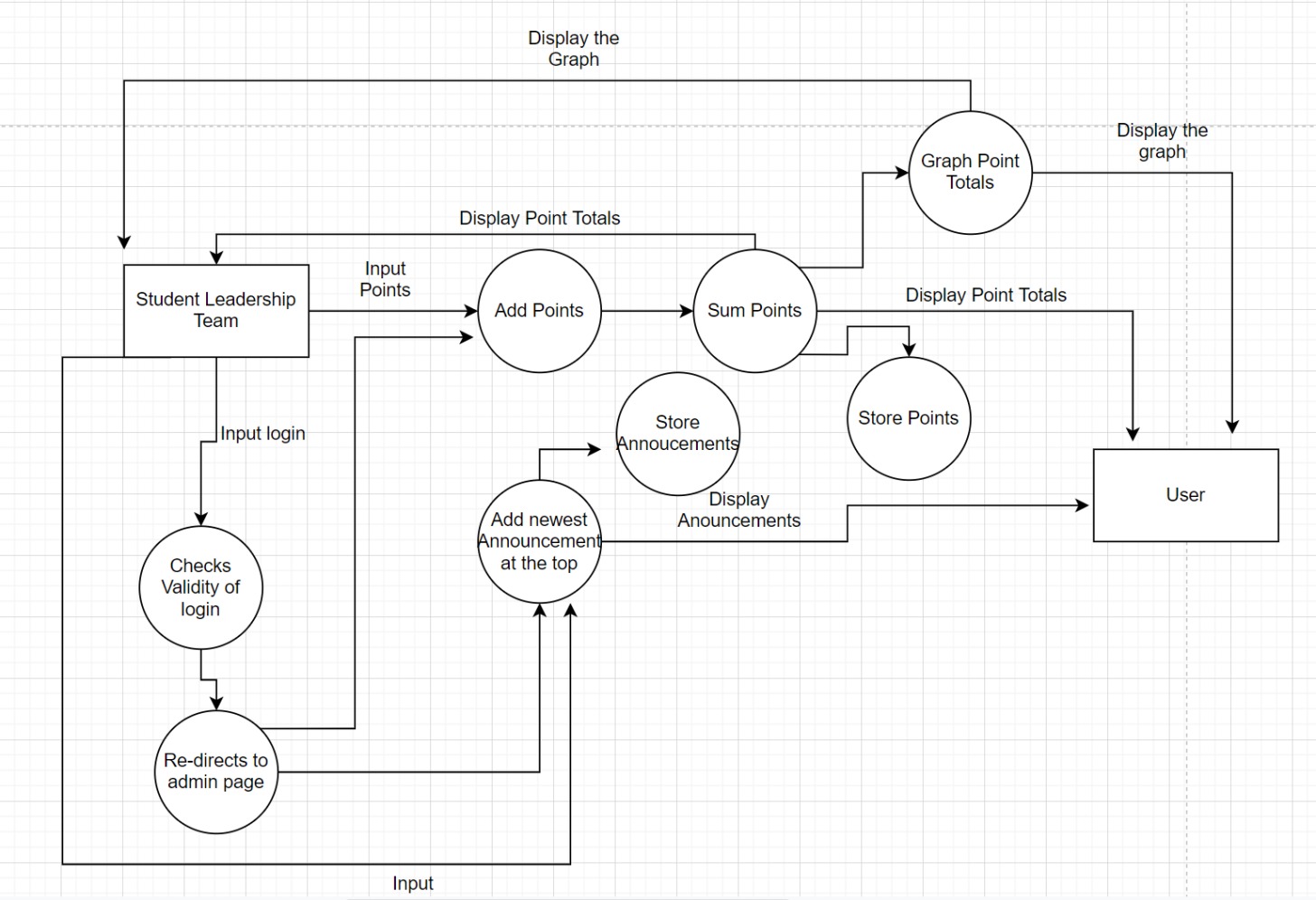
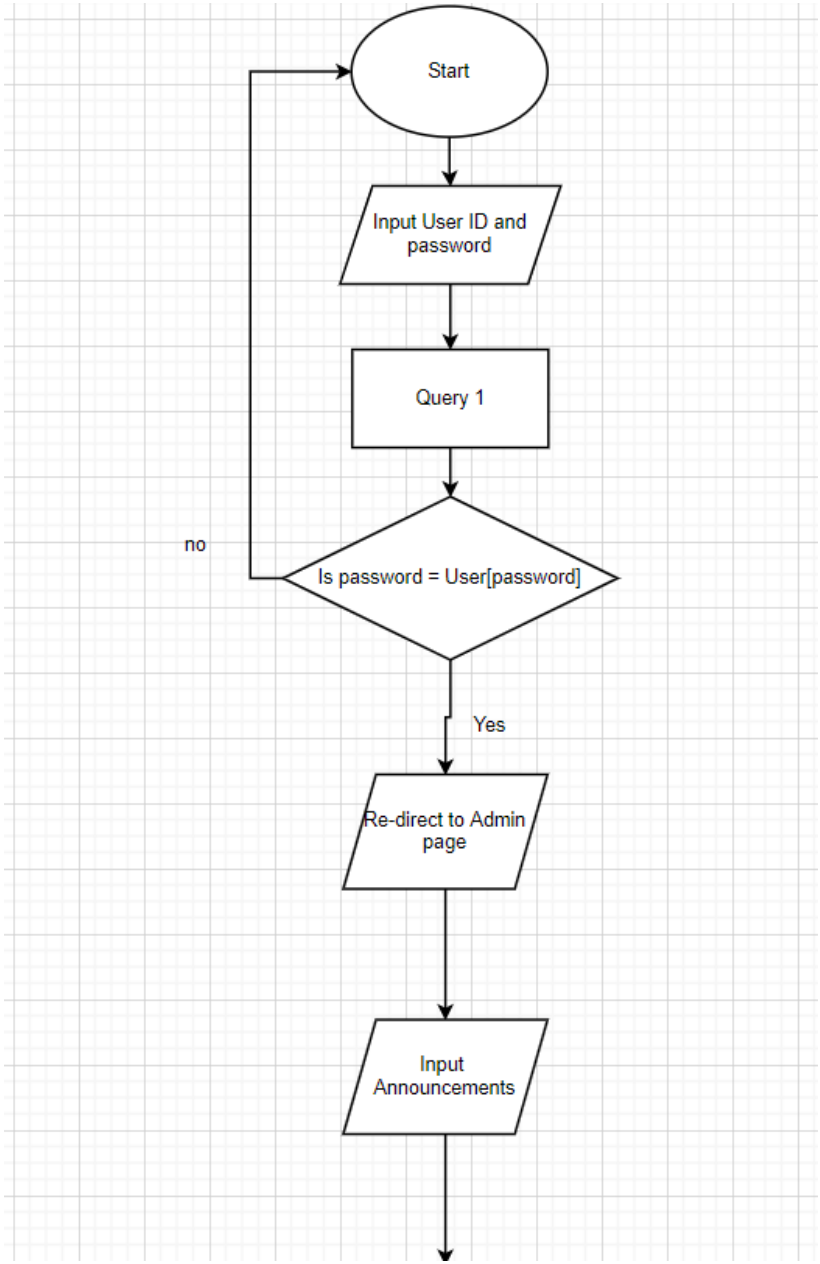
Level 0 User Interaction Chart

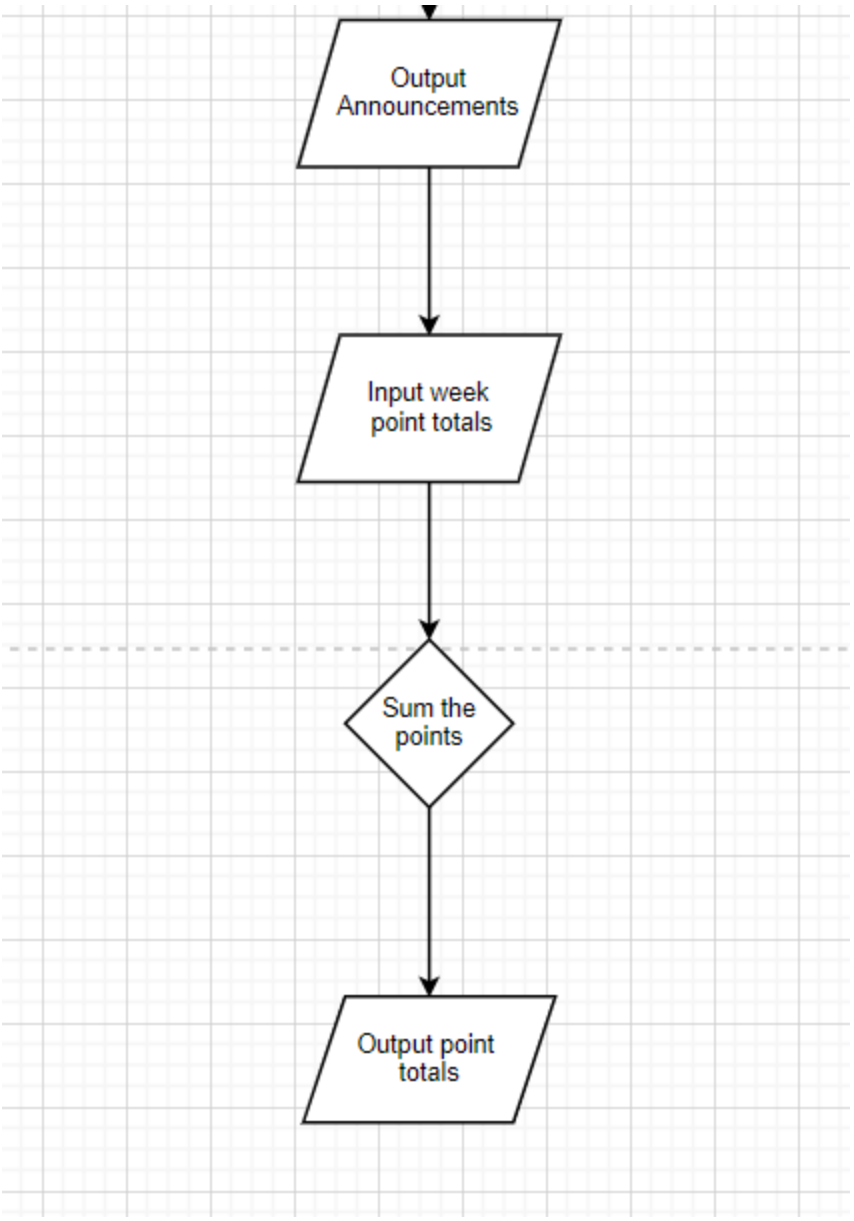


Level 1 User Interaction Chart



Website Flowchart




Output Announcements
Input week point totals
Sum the points
Output point totals

Data Storage

House ID	HouseName	FName	LName	UserID	Password	weeknumber	numberOfPoints	postID	posttext	dateCreated
1	Air	Erin	Bartels	1	bcjhhbhjehb	NA	NA	1	Welcome to the post	8/20/2020
1	Air	Erin	Bartels	1	bcjhhbhjehb	NA	NA	2	Second Post	9/3/2020
1	Air	Erin	Bartels	1	bcjhhbhjehb	NA	NA	3	Third Post is cool	1/14/2021

To design my database I started by putting all my fields into one table. An example is shown above. As you can see many things would have to be unnecessarily repeated and some of the data is unrelated therefore I separated the data into different tables. I removed the information about the user and put it into a separate table shown below.

The overall design of the table is shown below:

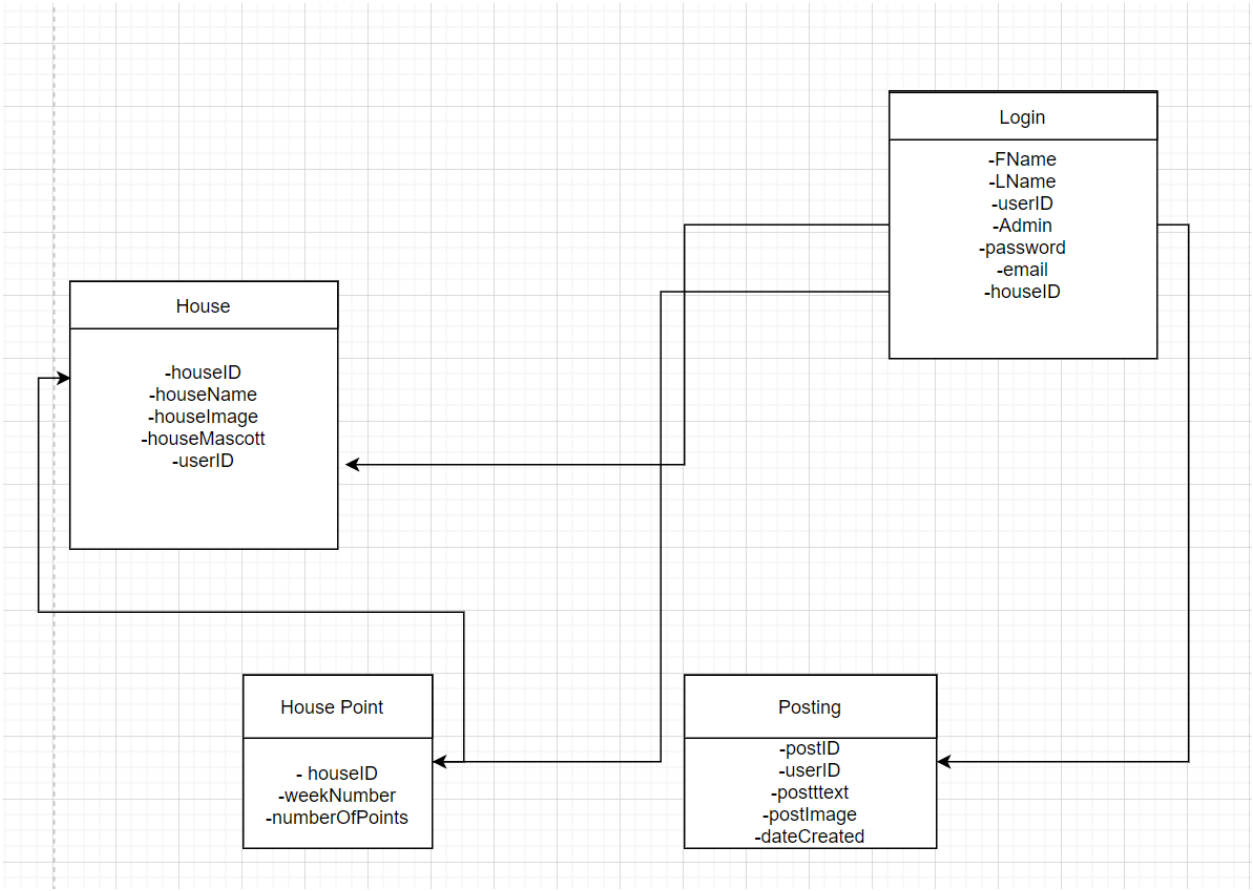


Table Design

User

Field Name	Datatype	Any Validation	Key Field	Example
FName	String	None	N/A	“Erin”
LName	String	None	N/A	“Bartels
userID	int	None	Yes	1
HouseID	int	None	N/a	2
Email	string	None	N/A	“erin_bartels@houston.nae.school
Password	string	Yes	N/A	“sjkjrgrv”

The user table contain information about the admins in order for them to login to the admin pages.

This left the posts, points and the information about each of the houses. The posts and the points were not related to each other. So I separated these out into different tables as you can see below.

Posting

Field Name	Datatype	Any Validation	Key Field	Example
PostID	int	None	N/A	5
PostText	String	None	N/A	“Welcome to the post”
userID	int	None	N/A	1
DateCreated	datetime	None	N/A	2020-12-22

The post tables hold the values of the post on the home page to display to all of the users.

House

Field Name	Datatype	Any Validation	Key Field	Example
HouseID	int	None	Yes	2
House Name	String	None	N/A	“Air”
Head of House	int	None	N/A	1

The house table holds data about each of the individual houses in order to sort the posts by the different houses.

House Points

Field Name	Datatype	Any Validation	Key Field	Example
HouseID	int	None	Yes	2
Week Number	int	None	N/A	1
numOfPoints		None	N/A	1

The House Points are stored by week and will be totalled together to display the sum.

Queries

Field	UserID	House ID	Password
Table	User	User	User
Critera	[Enter user ID]		
Group			

This query will be used for the login page. It will retrieve the user with that user ID and then the password will be checked to see if they are the same. If they match, the user will be allowed access to the admin mode.

Field	HouseID	House Name	HouseID	numOfPoints
Table	House	House	House Points	House Points
Sort				Descending
Criteria			=House.HouseID	
Group				Sum(Num of Points)

This query will be used to display the number of house points for each house in descending order. It combines fields from two tables.

Field	HouseID	House Name	HouseID	PostText	DateCreated
Table	House	House	Posting	Posting	Posting
Sort					Descending
Criteria	[Input HouseID]		=House.HouseID		
Group					

This query will be used to display the announcements for a particular house. They will be displayed in descending order.

INSERT INTO Queries

Field	House Name	House ID	WeekNumber	NumberOfPoints
Table	House	HousePoints	HousePoints	HousePoints
Sort				
Criteria		=House.HouseID		
Insert	[Input House Name]		[input WeekNumber]	[Input NumberOfPoints]

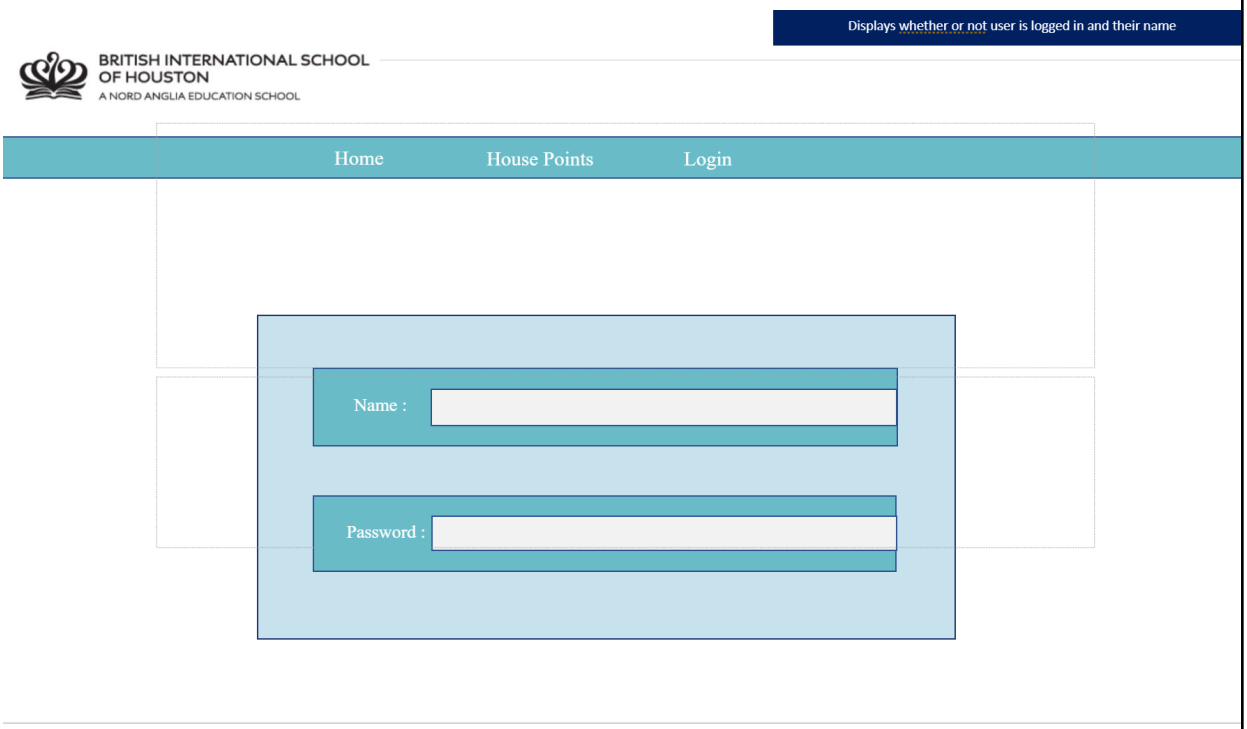
This query will be used to add the weekly house points total to the house points tables. I will develop a way for the user to select the house name but the houseID will be inserted.

Field	House Name	House ID	PostText	DateCreated
Table	House	Posting	Posting	Posting
Sort				
Criteria		=House.HouseID		
Insert	[Input House Name]		[input Post Text]	[Input Date Created]

This query will be used to add the weekly house points total to the house points tables. I will develop a way for the user to select the house name but the houseID will be inserted.

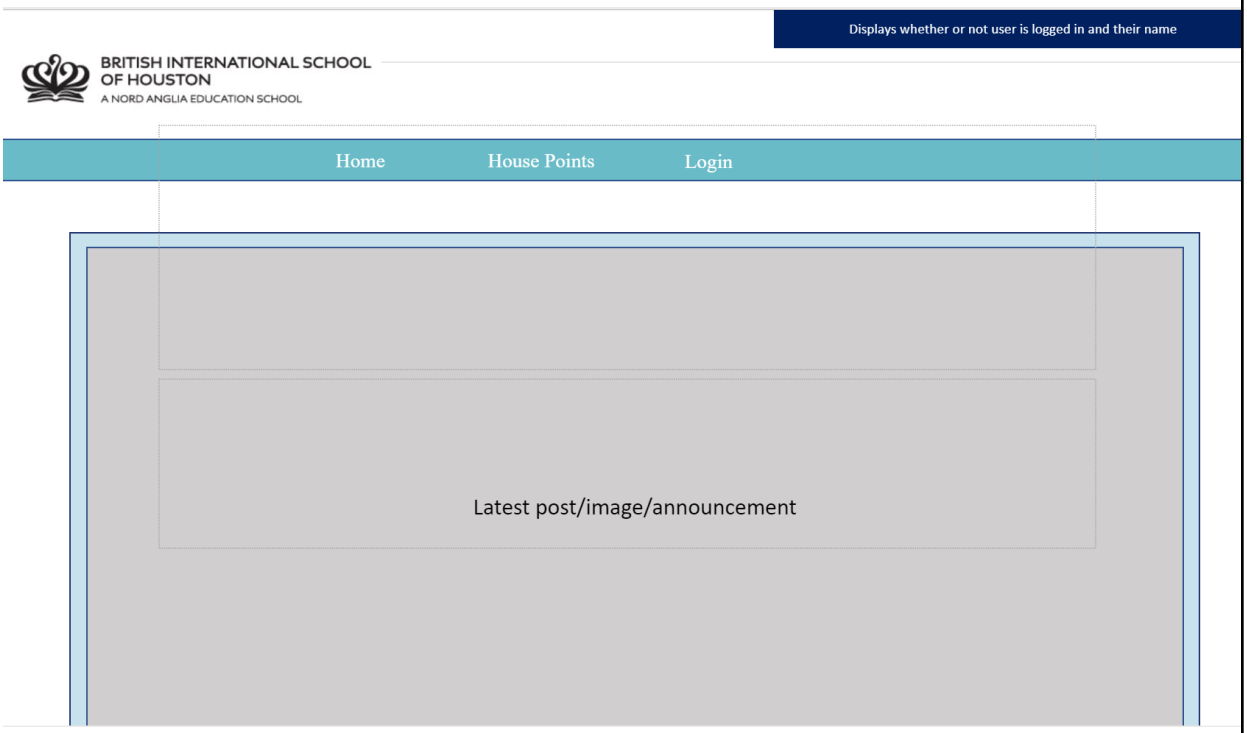
UI Designs

Admin Login Screen

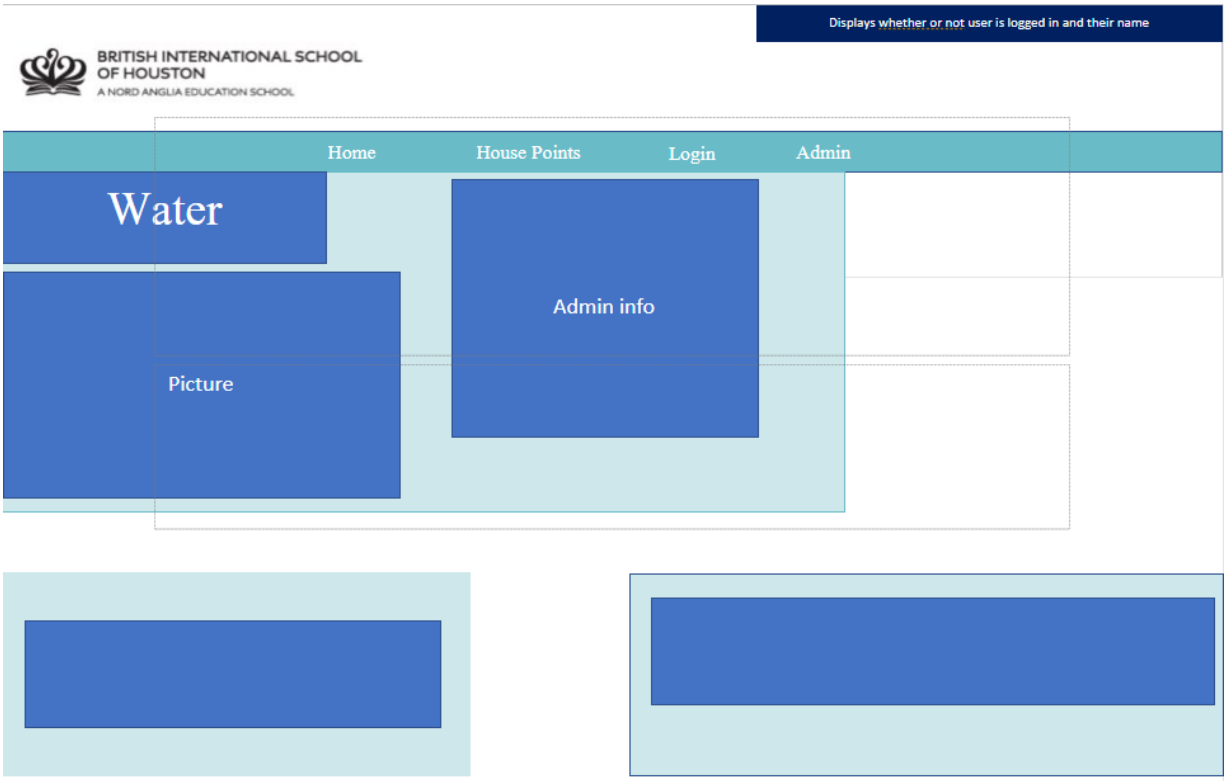


Overall House Points Screen

Latest Announcements Page



House Admin Page



Test Plan

Can the user input their nickname and house into input boxes	Inputting data into the input boxes for the cookies	A cookie has been set and is stored
Are the values received from the user input boxes set as a cookie	Inputting data into the boxes and closing the window and re-opening it	The cookie should be stored and the specific house announcements will show up
Are the Posts sorted by house and by date.	Looking at the house pages	The newest post should be displayed at the top. The only announcements that are viewed should be that of the house the user is in.
Does the database store the house announcements	Checking the database	The announcements title, date, and information is stored.
The bar chart displays the correct value of points	Clicking view graph	The graph displays the total number of points for each individual house
Do the login input boxes accept values and compare them with the values in the database	Submitting invalid values to see if it is compared with the values in the database	The input should say that it is invalid
Admin login doesn't accept invalid passwords or logins	Inputting "Password" "123456" Which should be invalid	Says invalid attempt
Are there specific passwords for each admin that allow them to access the admin page?	Inputting "3" "f7Kxx8AB" Which should be valid	Password is compared with the preset value in the database. It should be accepted and redirect the user to the admin page
Login doesn't accept null values	Pressing the submit button without entering anything	Says invalid attempt
Posting Function works and displays properly	Inputting multiple posts	Posts that are inputted can be seen on the homepage

		sorted from newest to oldest
Points can be inputted and are summed correctly	Inputting a number of points	Seeing on the points page if they are summed correctly
Can the admin input the weeks house point totals	Input week 1 and a total of 32 to the earth house	The value should be stored in the database and added to the total house points. Earth should equal original value plus 32
Does the website function across multiple browsers	Using the website on multiple different browsers	The formatting of the html display is consistent across platforms