

Criterion B—Mock IA

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1 Systems Flow Chart

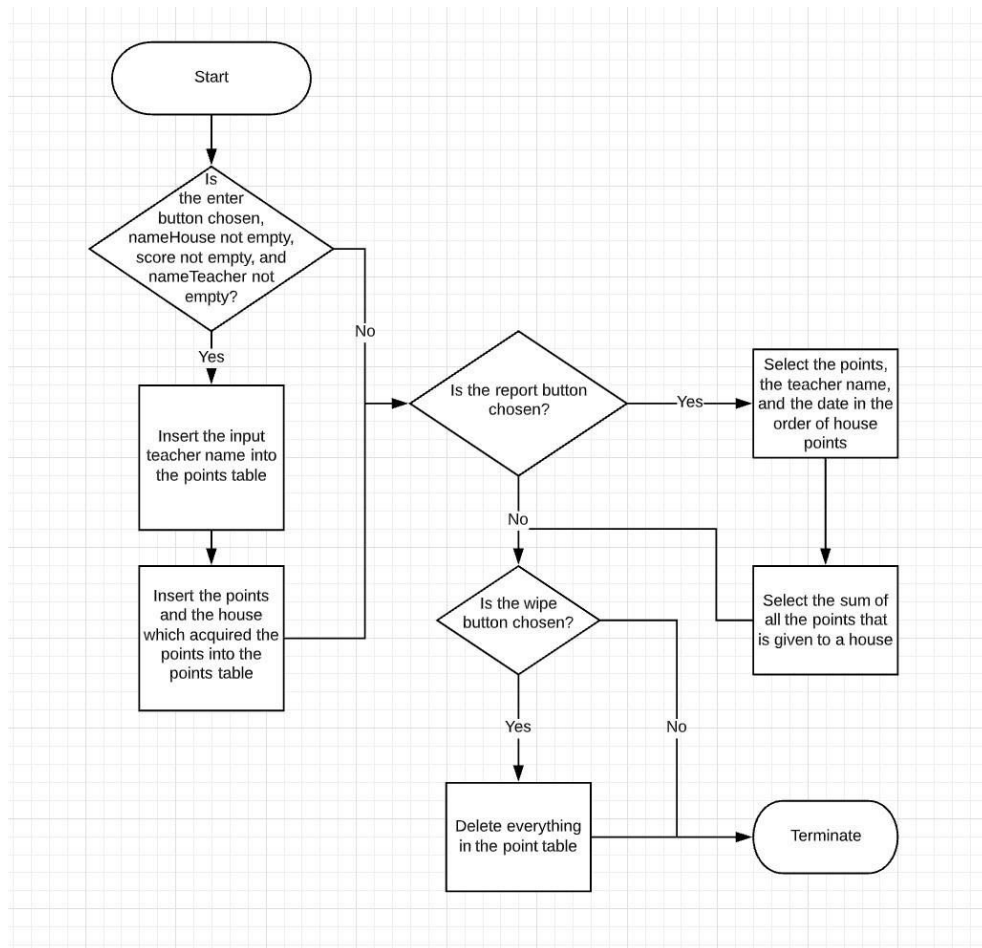


Figure 1: System flow chart

2 User Interface Design

The image shows four hand-drawn user interface screens for a 'House League' system, drawn on graph paper.

Screen 1: Main Menu
Title: House League
Buttons: Input point, retrieve entries, current points, EXIT

Screen 2: Input Form
Title: Input house point
Fields: teacher (vertical list), house (vertical list), Amount of points (horizontal input), Date (DD/MM/YY) (horizontal input), ADD (button)

Screen 3: Top Entries
Title: Top entries in past X weeks
Table with 4 columns: teacher's name, house, points, date. Rows are numbered 1. to 6.

Screen 4: House Rankings
Title: House Rankings
Table with 2 columns: house, points. Rows are numbered 1. to 4.

Figure 2: User Interface
Design

3 Data Design

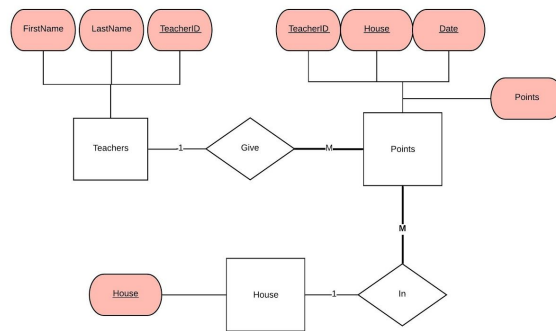


Figure 3: ERD

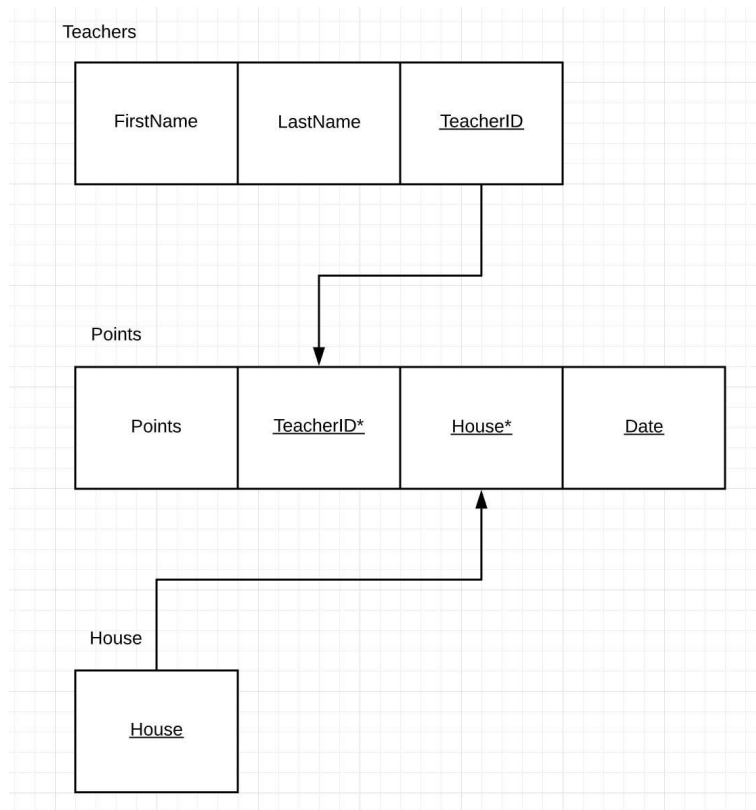


Figure 4: Relational Map

4 Algorithm Design

Assuming all teachers have all been input into the Teachers table

The name of the teacher input is taken as a variable nameTeacher

The name of the house input is taken as a variable nameHouse in which is taken from a dropdown box that has all the house name taken from the House table from the database

The score input is taken as a variable score

The enter button will be referred to as enter

The report button will be referred to as button

The reset button will be referred to as wipe

if enter and !(nameHouse is .Empty) and !(score is .Empty)
and !(nameTeacher is .Empty):

```
SQL INSERT INTO Points (TeacherID) SELECT Teacher ID FROM Teachers WHERE Teachers .  
TeacherName == nameTeacher  
SQL INSERT INTO Points (House , Points ) VALUES (nameHouse , score )
```

if report :

```
SQL SELECT Points , TeacherName , Date FROM Teachers JOIN Points WHERE Teachers .  
TeacherID = Points . TeacherID ORDER BY Points DESC  
\\ House points  
SQL SELECT SUM( Points ) , House . House FROM House JOIN Points WHERE House . House =  
Points . House
```

if wipe :

```
SQL DELETE FROM Points
```

5 Test Plan

Test Type	Nature of Test	Example
The main screen should display on startup	All four buttons should display on the main screen at startup	user should be able to see and click on buttons to proceed
Add entry button	Should allow client to add new entry	Client can click on add entry button and can add new entry to the database. Should return client to main screen data entry.
Display entries button	Should allow client to retrieve previous entries	This function should retrieve most recent entries and display the top few with the highest point given
Display total house points button	All the house point should be added up and displayed	user should be able to view the house and the total amount of points
exit button	The program should complete close down when exit button is pressed	Anytime the user wants to close the program, the exit button should close down without error
Inputting entry	Check whether the inputting screen shows the correct list and places for user to input data	When inputting entries, the user should be able to choose from a list of teachers and house, and also be able to input amount of points and date
Inputted entry stored in database	New entry should be saved in database	After inputting the new entry, all the information should be stored in the database can be viewed when data is retrieved
Should allow multiple entries and retrieval	All button functions besides exit, should be able to run multiple times	Data entry, retrieval of entry, and total house points should be able to run multiple times