

# House Facility Searching System

EPPS 6354

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# Purpose

This project provides an application for users who wants to buy a house. The users can not only find a house but also the facilities around the house, such as schools, hospital, stores, etc. It can help users to find the dream house faster.



# Workflow

1. Create database use PjAdmin4 and SQL
2. Extract the database from PjAdmin4 with DB browser
3. Put the data into Shiny app folders
4. Use Shiny app to implement applications with R

# Data Design

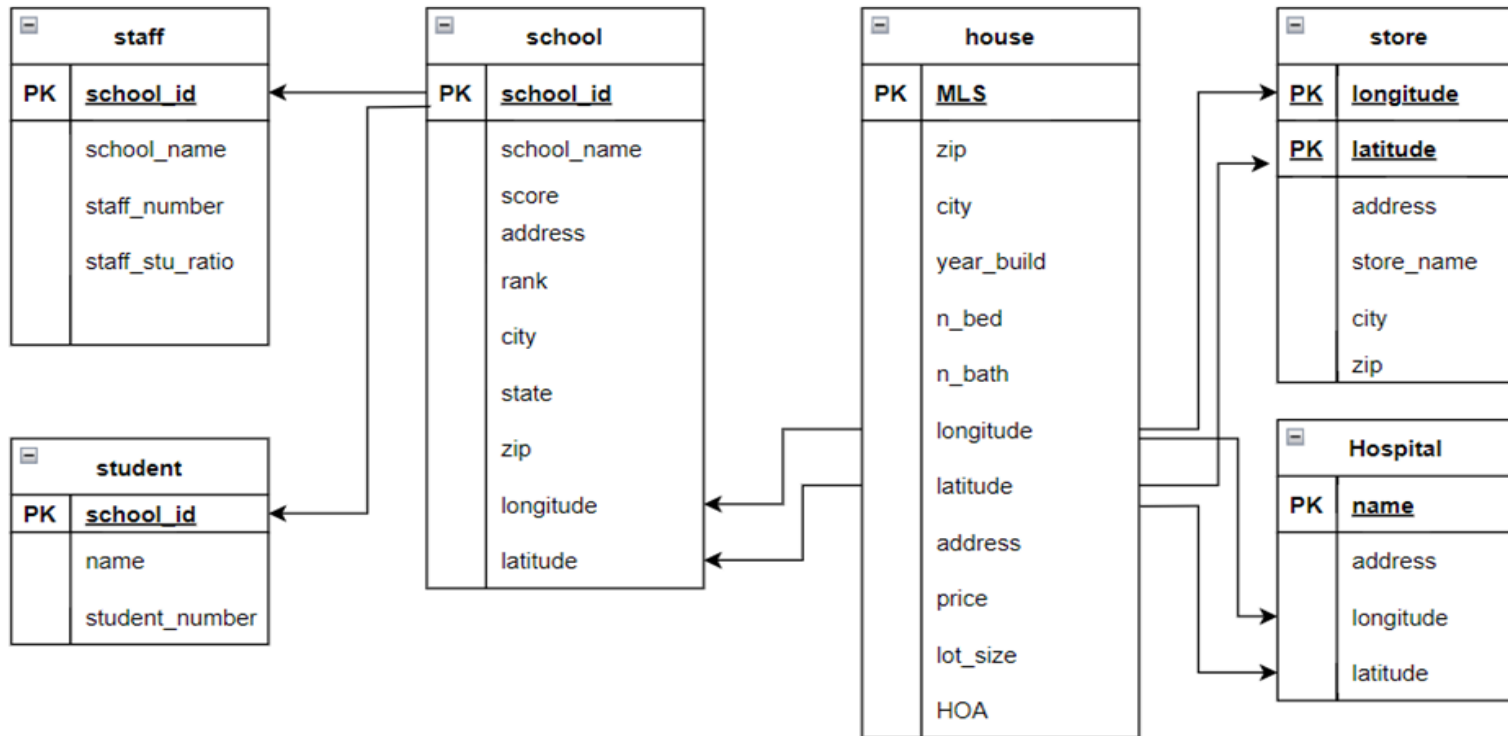
- Data is collected from redfin and data.World
- The house data covers some attributes, such as number of bedrooms and bathrooms, price, address, longitude, latitude, etc.
- The facility data covers the school, hospital, store, gym, etc.



# Primary Key & Schema

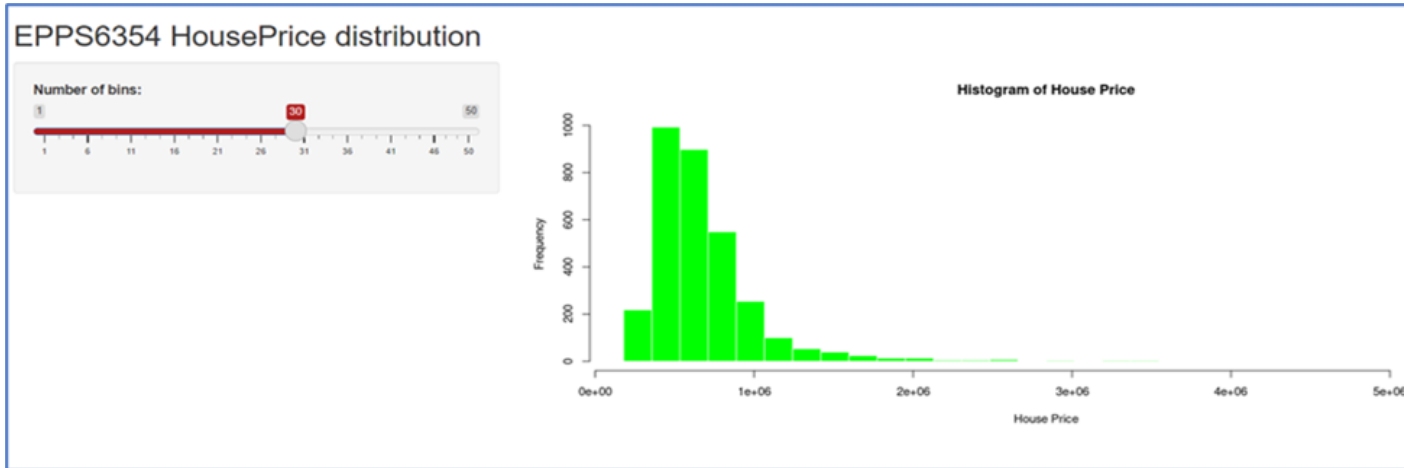
- The tables are:
- house(with primary key: MLS)
- hospital(with primary key: name)
- store(with primary key: longitude, latitude)
- school(with primary key: school\_id )
- student(with primary key: school\_id )
- staff(with primary key: school\_id)







# Applications



## EPPS6354 Hospitals within selected distance

enter the distance(miles):



Enter your zip

75036

Rows to display

1

Show 25 entries

Search:

address	city	zip	hp_name	hp_address	distance
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No data available in table

address

city

zip

hp\_name

hp\_address

distance

Showing 0 to 0 of 0 entries

Previous

Next

## EPPS6354 Nearest School

Enter your zip

Rows to display

Show 25 entries

Search:

house_address	house_zip	school_id	school_name	rank	stu_number	staff_number	staff_stu_ratio	distance
100 Price Cir	75036	61914105	HACKBERRY EL	20	711	61	14	0.3161752
1000 Chestnut Dr	75036	43905139	HOSP EL	20	674	52	16	0.2121258
1004 Knightsbridge Dr	75036	43905112	SPARKS EL	20	714	57	15	0.3899939
1006 London Dr	75036	43905112	SPARKS EL	20	714	57	15	0.2716009
1016 Rolling Thunder Rd	75036	43905112	SPARKS EL	20	714	57	15	0.1005108

house\_address

house\_zip

school\_id

school\_name

rank

stu\_number

staff\_number

staff\_stu\_ratio

distance

Showing 1 to 5 of 5 entries

Previous 1 Next

## EPPS6354 Stores within selected distance

enter the distance(miles):



Enter your zip

75036

Rows to display

1

Show 25 entries

Search:

address	city	zip	st_name	st_address	distance
100 Price Cir	Hackberry	75036	costco	11220 DALLAS PKWY	4.728803

address	city	zip	st_name	st_address	distance
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Showing 1 to 1 of 1 entries

Previous 1 Next

# Shiny app link

1. [https://xiaoyanhouston2.shinyapps.io/house\\_store/](https://xiaoyanhouston2.shinyapps.io/house_store/)
2. [https://xiaoyanhouston2.shinyapps.io/houseprice\\_frequency/](https://xiaoyanhouston2.shinyapps.io/houseprice_frequency/)
3. [https://xiaoyanhouston2.shinyapps.io/house\\_hospital/](https://xiaoyanhouston2.shinyapps.io/house_hospital/)
4. [https://xiaoyanhouston2.shinyapps.io/house\\_school/](https://xiaoyanhouston2.shinyapps.io/house_school/)



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**Thank You!**

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The image features a central white rectangular area containing the text "Thank You!" in a bold, dark grey serif font. Above and below this central area are decorative horizontal bands. The top band consists of overlapping watercolor-style washes in shades of light blue and pale yellow. The bottom band features similar watercolor textures in light blue and grey. Two thin, dark grey horizontal lines separate the central white area from the top and bottom decorative bands.