

Just Rent It



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Introduction & Background

Haibo Yu

Introduction & Background

Mission Objectives

Website Database Visualization Apartment Resources

Mission Statements

ER Diagram  SQL  Tableau

Users

Students or workers who want to rent apartments near the University of Maryland

Data & Sources

Real Data: Neighborhood (nghHealth Center, nghEntertainment...)
Apartment (Distance to Campus, Google View...)
Room (Room Status, Room Price..)

Make Up Data: Renter (rntId, rntName...)
Employee (empld, empName...)

1000+ Real Data from www.apartments.com



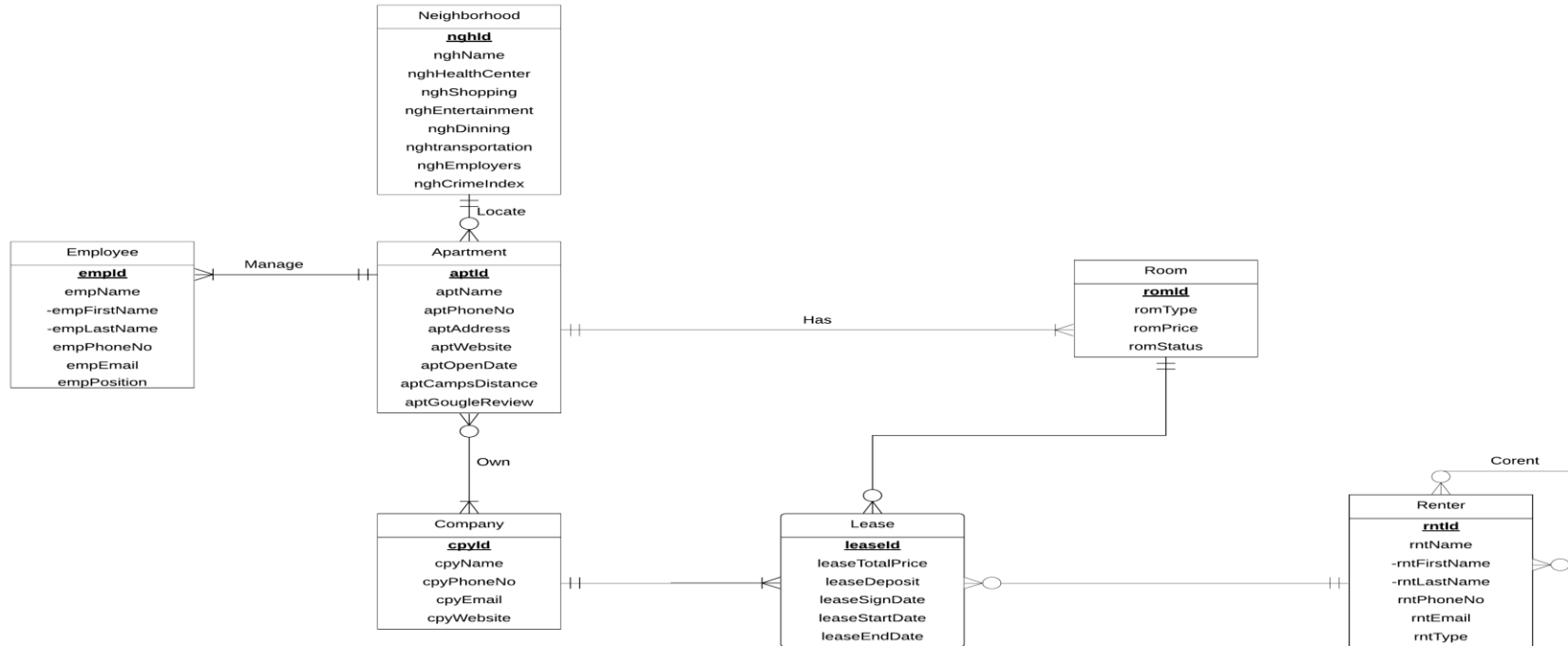


ER Diagram

Xiaoyou Zhou

ER Diagram

Entities, Attributes, Primary keys and Relationships





Logical & Physical Database Design

Luying Lou

Relational Schema

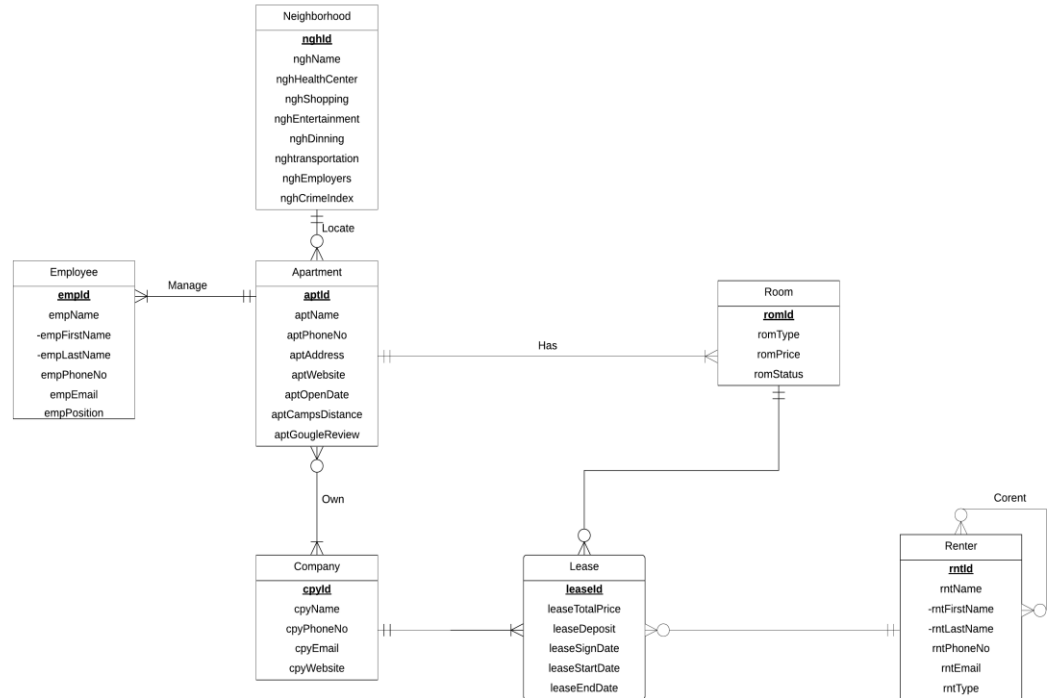
Foreign Keys

- ▶ Apartment (**aptId**, *ngHId*, aptName, aptPhoneNo, aptAddress, aptWebsite, aptOpenDate, aptCampsDistance, aptGoogleReview)
- ▶ Renter (**rntId**, rntFirstName, rntLastName, rntPhoneNo, rntEmail, rntType)
- ▶ Corent(**rntId**, **corntId**)
- ▶ Company (**cpyId**, cpyName, cpyPhoneNo, cpyEmail, cpyWebsite)
- ▶ Own(**aptId**, **cpyId**)
- ▶ Employee (**empld**, *aptId*, empFirstName, empLastName, empPhoneNo, empEmail, empPosition)
- ▶ Room (**romId**, *aptId*, romType, romPrice, romStatus)
- ▶ Lease (**leaseId**, *cpyId*, *romId*, *rntId*, leaseTotalPrice, leaseDeposit, leaseSignDate, leaseStartDate, leaseEndDate)
- ▶ Neighborhood(**ngHId**, nghName, nghHealthCenter, nghShopping, nghEntertainment, nghDinning, nghtransportation, nghEmployers, nghCrimeIndex)

Relational Schema

Foreign Keys

- ▶ Apartment (aptId, nghId)
- ▶ Employee (empId, aptId)
- ▶ Room (romId, aptId)
- ▶ Own(aptId, cpyId)
- ▶ Lease (leaseId, cpyId, romId, rntId)
- ▶ Corent(rntId, corntId)



Create Table

CREATE TABLE [JustRentIt.Apartment]

```
(
    aptId CHAR(9) NOT NULL,

    nghId CHAR(9),

    aptName VARCHAR(50),

    aptPhoneNo CHAR(10),

    aptAddress VARCHAR(80),

    aptWebsite VARCHAR(80),

    aptOpenDate DATE,

    aptCampsDistance NUMERIC(3,2),

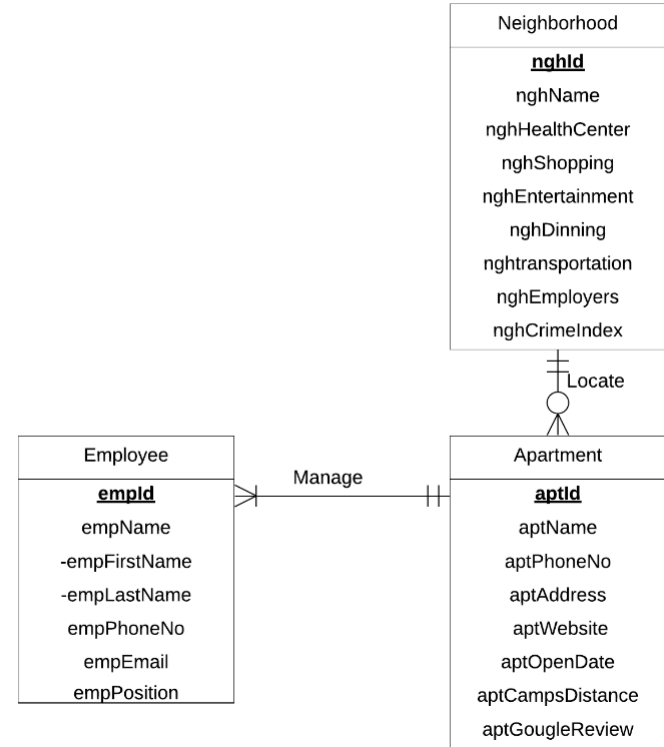
    aptGoogleReview NUMERIC(2,1),

    CONSTRAINT pk_Apartment_aptId PRIMARY KEY
    (aptId),

    CONSTRAINT fk_Apartment_nghId FOREIGN KEY
    (nghId)

REFERENCES
[JustRentIt.Neighborhood] (nghId)
ON DELETE CASCADE ON
UPDATE CASCADE )
```

► Apartment (aptId, nghId, aptName, aptPhoneNo, aptAddress, aptWebsite, aptOpenDate, aptCampsDistance, aptGoogleReview)





Use Cases- Business Transactions with SELECT solutions

Praneeth Yaramosu

1. What are the range of prices of rooms in different apartments?

```
SELECT aptName as 'Apartment Name', aptPhoneNo as 'Phone Number',
       aptAddress as 'Address', aptWebsite as 'Website',
       aptOpenDate as 'Open Date', aptCampsDistance as 'Distance to Campus',
       aptGoogleReview as 'Google Reviews (/5)', MIN(romPrice) as Minimum_Room_Price,
       MAX(romPrice) as Maximum_Room_Price, AVG(romPrice) as Average_Room_Price
FROM [JustRentIt.Room] as r, [JustRentIt.Apartment] as a
WHERE r.aptId = a.aptId
GROUP BY r.aptId, aptName, aptPhoneNo, aptAddress, aptWebsite, aptOpenDate, aptCampsDistance, aptGoogleReview
```

100 %										
Results Messages										
	Apartment Name	Phone Number	Address	Website	Open Date	Distance to Campus	Google Reviews (/5)	Minimum_Room_Price	Maximum_Room_Price	Average_Room_Price
1	The Delano	2407644404	9350 Baltimore Ave, College Park, MD 20740	www.TheDelano.com	2016-06-01	1.40	4.5	950	3100	2035
2	4222 Jefferson St Unit Cottage	7028323783	9600 Milestone Way, College Park, MD 20740	www.4222JeffersonStUnitCottage.com	2018-11-23	2.20	4.9	1087	2190	1644
3	Hamilton Manor	2403983334	6400 Riverdale Rd, Riverdale, MD 20737	www.HamiltonManor.com	2016-06-06	2.80	2.5	1100	2155	1601
4	Westchester Tower Apartment Homes	3013281230	1811 Metzert Rd, Adelphi, MD 20783	www.WestchesterTowerApartmentHomes.com	2016-05-19	2.00	4.6	1189	3100	1819
5	7333 New Hampshire Ave Unit 917	3018614172	6200 Westchester Park Dr, College Park, MD 20740	www.7333NewHampshireAveUnit917.com	2018-10-16	3.00	2.6	1190	2999	2094
6	Daniels Run	3016644813	5309 Riverdale Rd, Riverdale, MD 20737	www.DanielsRun.com	2017-09-09	2.50	3.6	1250	3100	2126
7	Belcrest Plaza Apartments	2407058243	8125 48Th Ave, College Park, MD 20740	www.BelcrestPlazaApartments.com	2016-11-19	0.40	3.6	1270	3899	2165
8	22 Seek Ct	7813994293	5409 Riverdale Rd, Riverdale, MD 20737	www.22SeekCt.com	2017-10-20	2.40	3.6	1300	3100	2301
9	7333 New Hampshire Ave Unit 603	4109216585	College Park, MD 20740	www.7333NewHampshireAveUnit603.com	2017-08-29	0.70	2.8	1350	1800	1575
10	8316 14th Ave Unit 302	2402935507	6220 Springhill Dr, Greenbelt, MD 20770	www.831614thAveUnit302.com	2019-04-16	3.10	5.0	1360	3759	2213
11	Alloy by Alta	8446853293	4700 Berwyn House Rd, College Park, MD 20740	www.AlloybyAlta.com	2016-09-22	0.40	3.4	1360	3799	2083
12	3350 At Alterra	3016370046	9408 Adelphi Rd, Adelphi, MD 20783	www.3350AtAlterra.com	2016-08-29	2.10	4.8	1400	3100	2053
13	Courtyard Park Apartments	2406966641	1818 Metzert Rd, Adelphi, MD 20783	www.CourtyardParkApartments.com	2015-12-16	2.20	4.0	1425	2977	2123
14	5042 38th St Unit 2	3018418372	9123 Baltimore Ave, College Park, MD 20740	www.54238thStUnit2.com	2016-03-16	0.60	4.1	1615	3299	2457
15	7333 New Hampshire Ave Unit 1200	4432672340	1801 Jasmine Ter, Adelphi, MD 20783	www.7333NewHampshireAveUnit1200.com	2018-05-19	1.50	4.6	1620	1620	1620
16	4611-4613 Calvert Rd	2028036325	10209 Baltimore Ave, College Park, MD 20740	www.4611-4613CalvertRd.com	2017-08-25	2.20	3.5	1620	4676	3179
17	8830 Piney Branch Rd Unit 409	2026645395	9310 Cherry Hill Rd, College Park, MD 20740	www.8830PineyBranchRdUnit409.com	2017-12-22	2.50	4.9	1640	2918	2111
18	Monument Village at College Park	2024077556	8010 Greenbelt Station Pky, Greenbelt, MD 20770	www.MonumentVillageatCollegePark.com	2019-02-02	1.60	4.6	1670	3000	2036
19	5042 38th St Unit 1	3016838179	4800 Berwyn House Rd, College Park, MD 20740	www.54238thStUnit1.com	2017-03-08	0.60	3.3	1755	2780	2171



2. Which neighborhood should a renter choose if he wants to live in the safest apartment?

```
SELECT nghName as 'Neighborhood Name',  
       nghHealthCenter as 'Number of Health Centers',  
       nghShopping as 'Number of shopping centers',  
       nghEntertainment as 'Number of entertainment centers',  
       nghDinning as 'Number of dining centers',  
       nghTransportation as 'Number of transportation centers',  
       nghEmployers as 'Number of Employers',  
       nghCrimeIndex as 'Criminal Index'  
FROM [JustRentIt.Neighborhood]  
WHERE nghCrimeIndex <= ALL ( SELECT nghCrimeIndex  
                               FROM [JustRentIt.Neighborhood] );
```

Results		Messages						
	Neighborhood Name	Number of Health Centers	Number of shopping centers	Number of entertainment centers	Number of dining centers	Number of transportation centers	Number of Employers	Criminal Index
1	College Park	9	426	37	389	40	20	70

Application - Tableau and Just Rent It! Website

Yusheng Fu

[Home](#)[Apartment](#)[Neighborhood](#)[Room](#)[Sign Up](#)[Sign In](#)

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THANK YOU