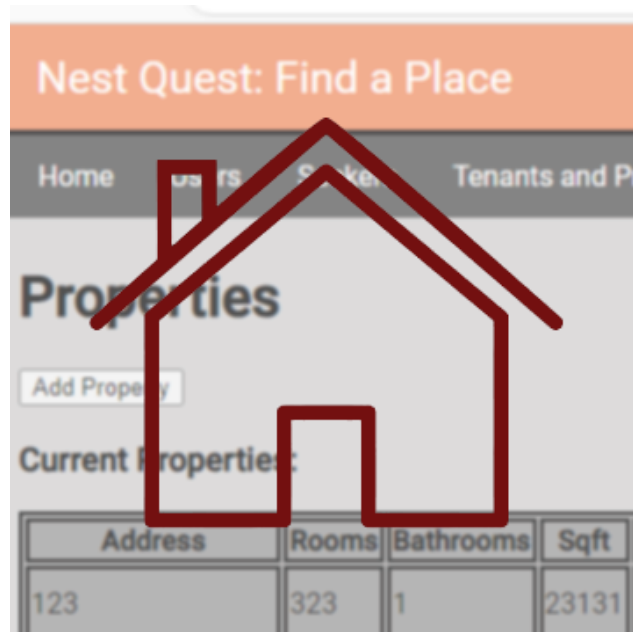


# Nest Quest

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URL to front-end pages: <http://flip1.engr.oregonstate.edu:5276/>

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## Executive Summary

### Reviews and Improvements:

Here are some of the more important changes that we made from the initial design.

1. Adding a many to many relationship between Tenants and Properties, basically incorporating the idea that a tenant can live in more than one place.
2. Formatting the attributes so that the naming is consistent.
3. Adding more numerical information to the overview of the database.
4. Implementing CASCADE functionality in the DDL for an easier job deleting entries.
5. Realized halfway through that we never stored an user's first or last name, so we added that.
6. Added styling to the UI to make the pages more navigable

### Revised Project Design:

## Project and Database Outline

### Overview:

Our project is to develop a web application that allows students at Oregon State University to find roommates and places to live. It also allows landlords to post information about their properties to attract tenants. Our database will be a relational database tasked with storing and listing information about vacant rooms in Corvallis, Oregon. This application is intended for students at Oregon State University. There are approximately 40,000 students, most of which live in apartments or townhomes off campus. There are over 400 apartments, townhomes, houses, and other properties where students reside off campus. We estimate that the average size of apartments will be about 1200, with the majority of apartments being good quality. As such, our database needs to have the storage capacity and flexibility to accommodate a large variety of living situations. Users need to be able to insert, delete, and modify certain information from this database given their current living situation and goals. This database will contain information such as names, addresses, ratings, and preferences - such as non-smoking, pets, and noise levels. Additionally, people will be classified into two categories. Owners are people who currently reside in a Property and are looking for roommates. Seekers are people who are looking for a place to live.

## Database Outline:

Primary keys have a star\*

Foreign keys have a carat^

### ❖ **Users:** Holds the data of anyone who uses the application

- user\_id\*^: int, auto\_increment
- fname: varchar
- lname: varchar
- email: varchar
- phone: varchar
- smoking: varchar
- pets: varchar
- gender: varchar
- age: varchar
- Relationships:
  - A 1: 0 or M relationship between Users and Reviews (A User can write many Reviews).
  - A 0 or 1 relationship between Users and Tenants (If a User exists, they can either be a Tenant or not a Tenant.)
  - A 0 or 1 relationship between Users and Seeker (If a User exists, they can either be a Seeker or not a Seeker.)

### ❖ **Tenants:** Holds the data of people residing in a Property who are looking for roommates

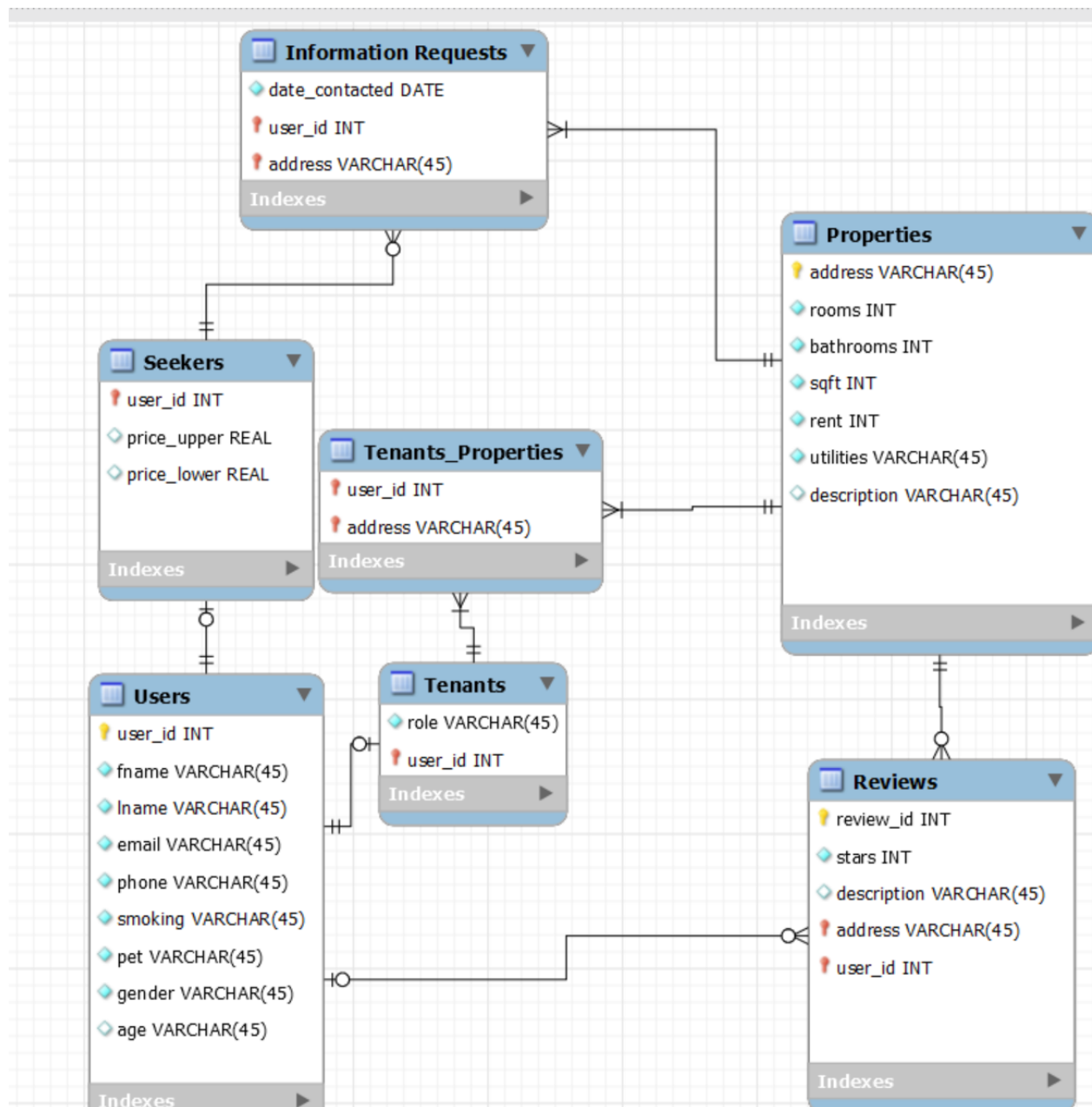
- user\_id\*^: int
- role: varchar
- Relationships:
  - A 1: 1 or M relationship between Tenants and Tenant Directory (Many Tenants can be living in many Properties).
  - A 1:1 relationship between Tenants and Users (If a Tenant exists, they must be a User)

### ❖ **Seekers:** Holds data of people currently looking for roommates and a place to live.

- user\_id\*^: int, auto\_increment
- price\_upper: int
- price\_lower: int
- Relationships:
  - A 1: 0 or M relationship between Seekers and Information request (A Seeker can send out multiple Information requests).
  - A 1:1 relationship between Seekers and Users (If a Seeker exists, they must be a User)

- ❖ **Information Requests:** Hold data about requests for Information about Properties sent by Seekers
  - user\_id\*^: int, not NULL, unique
  - date\_contacted: DATE, not NULL
  - address\*: varchar, not NULL
  - Relationships:
    - A 1:1 relationship to Seeker(One Information request must have one Seeker)
    - A 1:1 relationship to Property(One Information request can be about only one Property)
  
- ❖ **Properties:** The Properties that Tenants are living at where openings are available
  - address\*: varchar, not NULL, unique
  - rooms: int, not NULL
  - bathrooms: int, not NULL
  - sq\_ft: varchar, not NULL
  - rent: varchar, not NULL
  - utilities: varchar, not NULL
  - description: varchar
  - Relationships:
    - A 1: 0 or M relationship to Information Request (One Property can have multiple Information requests)
    - A 1: 0 or M relationship to Tenant Directory (One Property can house multiple Tenants)
    - A 1: 0 or M relationship to Reviews (One Property can have none or multiple Reviews)
  
- ❖ **Reviews:** These are Reviews written by Users of the app about Properties
  - review\_id\*: int, auto\_increment, not NULL
  - user\_id^: int, not NULL
  - address^: varchar, not NULL
  - stars: int, not NULL
  - description: varchar
  - Relationships:
    - A 1:1 relationship with Users (Any given review can only be written by one User)
    - A 1:1 relationship to Properties (A review can only be related to one Property)
  
- ❖ **Tenants\_Properties:** This is an intersection table between Tenants and Properties
  - user\_id\*^ int, not NULL (Note, the pk is the combination of the two)
  - address\*^ varchar
  - Relationships:
    - A 1:1 relationship to Tenants
    - A 1:1 relationship to Properties

## Entity Relationship Diagram:



## Sample Data

Users								
user_id	fname	lname	email	phone	smoking	pet	gender	age
1	Rob	Michaels	rob@gmail.com	1234567890	yes	no	male	22
2	Amy	Stevenson	amy@outlook.com	987654321	no	no	female	20
3	Jim	Davis	jim@oregonstate.edu	5413214567	no	yes	male	25
4	Jordan	Brooks	jordan@gmail.com	3219876540	yes	yes	female	20
5	Bill	Bobert	bill@oregonstste.edu	4436758766	no	no	male	24
6	Jace	Smith	jace@yahoo.com	4336751369	no	yes	male	21

Tenants	
user_id	role
4	owner
5	tenant
6	tenant

Seekers		
user_id	price_upper	price_lower
1	750	0
2	950	300
3	600	0

Properties						
address	rooms	bathrooms	sqft	rent	utilities	description
12345 Berry st	3	3	1550	750	water, sewage, garbage, washer/dryer	Townhome 2.2 miles from campus
23465 west ave	2	2	1450	850	water, sewage, garbage, washer/dryer	Apartment room located 5 minutes from campus
876 robin blvd	4	3	1650	600	electricity, water, sewage, garbage, washer/dryer	nice place
23819 bald mtn rd	4	4	1800	650	electricity, water, sewage, garbage, washer/dryer	House from the 80s but in great condition.

Information Request		
date_contacted	user_id	address
12-11-2022	1	12345 Berry st
09-28-2022	2	12345 Berry st
02-24-2023	3	23819 bald mtn rd

Tenant_Properties	
user_id	address
4	12345 Berry st
4	23465 west ave
5	876 robin blvd
6	23819 bald mtn rd

Reviews				
review_id	user_id	address	stars	description
1	1	23819 bald mtn rd	4	great place! The location is nice
2	2	876 robin blvd	4	Included electricity is a huge plus.
3	2	23465 west ave	3	The rooms have a weird smell and the carpets are discolored



## UI Overview

Home Page: No functionalities, just explains some of the database structure.

### Nest Quest: Find a Place

[Home](#)[Users](#)[Seekers](#)[Tenants and Properties](#)[Properties](#)[Information Requests](#)[Reviews](#)

## Welcome to NestQuest!

### Overview

The is the database managment website for NestQuest. NestQuest is a web application that allows users to find a place to live. Users can search for properties, view information about them, and request more information from the property owner. Users can also write reviews about properties they have lived in.

### Entity Descriptions

- Users holds information about every user in the database.
- Seekers holds information about seekers, users searching for a place to live.
- Tenants holds information about tenants - users who already live in a property - and also an intersection table to properties.
- Information Requests holds information about information requests sent out by seekers about a particular property.
- Reviews holds information about property reviews written by users.

### Specifications

- Insert / Select(Read) implemented for all entities.
- Delete / Update implemented for Users and Properties.
- Search implemented for Users.

## User Page: Create/Read/Update/Delete

### Nest Quest: Find a Place

[Home](#) [Users](#) [Seekers](#) [Tenants and Properties](#) [Properties](#) [Information Requests](#) [Reviews](#)

## Users

### Current Users:

User ID	First Name	Last Name	Email	Phone	Smoking	Pet	Gender	Age		
1	Rob	Michaels	rob@gmail.com	1234567890	No	No	Male	22	Delete	Update
2	Amy	Stevenson	amy@outlook.com	987654321	No	No	Female	20	Delete	Update
3	Jim	Davis	jim@oregonstate.edu	5413214567	No	No	Male	25	Delete	Update
4	Jordan	Brooks	jordan@gmail.com	3219876540	No	No	Female	20	Delete	Update
5	Bill	Bobert	bill@oregonstate.edu	4436758766	No	No	Male	24	Delete	Update
6	Jace	Smith	jace@yahoo.com	4336751369	No	No	Male	21	Delete	Update

[Add New User](#)

Search for a User by their First Name:   [Cancel Search](#)

Search for a User by their First Name:   [Cancel Search](#)

Current Users:

User ID	First Name	Last Name	Email	Phone	Smoking	Pet	Gender	Age
1	Rob	Michael	rob@gmail.com	1234567890	No	No	Male	22
2	Amy	Stevenson	amy@outlook.com	987654321	No	No	Female	20
3	Jim	Davis	jim@oregonstate.edu	5413214567	No	No	Male	25
4	Jordan	Brooks	jordan@gmail.com	3219876540	No	No	Female	20
5	Bill	Bobert	bill@oregonstate.edu	4436758766	No	No	Male	24
6	Jace	Smith	jace@yahoo.com	4336751369	No	No	Male	21

### Adding User:

First Name:

Last Name:

Email:

Phone:

Smoking:

Pet:

Gender:

Age:

### Update User: 1

First Name:

Last Name:

Email:

Phone:

Smoking:

Pet:

Gender:

Age:

Nest Quest: Find a Place

Home

Users

Seekers

Terms

Seekers

Current Seekers:

User ID	Upper Price	Lower Price
1	750	0
2	950	300
3	600	0

New Seeker

Lower Price

0

300

0

111

User ID: -- select an option --

Price Upper: Enter Upper Price

Price Lower: Enter Lower Price

Submit

Close

## Tenants and Properties Page: Create/Read/Delete

### Tenants and Properties

**Current Tenants:**

User ID	Role	
3	Land Lord	Delete
4	owner	Delete
5	tenant	Delete

User ID: -- select an option -- ▾

Address: -- select an option -- ▾

### Tenants and Properties

**Current Tenants:**

User ID	Role	
3	Land Lord	Delete
4	owner	Delete
5	tenant	Delete

User ID: -- select an option -- ▾

Role:

### Tenants and Properties

**Current Tenants:**

User ID	Role	
4	owner	Delete
5	tenant	Delete
6	tenant	Delete

**Current Tenant-Properties:**

User ID	Address	
4	12345 Berry St.	Delete
4	23465 West Ave.	Delete
5	876 Robin BLVD.	Delete
6	23819 Bald Mtn Rd.	Delete

## Properties Page: Create, Read, Update, Delete

### Nest Quest: Find a Place

[Home](#) [Users](#) [Seekers](#) [Tenants and Properties](#) [Properties](#) [Information Requests](#) [Reviews](#)

## Properties

### Current Properties:

Address	Rooms	Bathrooms	Sqft	Rent	Utilities	Description	Delete	Update
12345 Berry St.	3	3	1550	750	water, sewage, garbge, washer/dryer	Townhome 2.2 miles from campus	Delete	Update
23465 West Ave.	2	2	1450	850	water, sewage, garbage, washer/dryer	Apartment room located 5 minutes from campus	Delete	Update
23819 Bald Mtn Rd.	4	4	1800	650	electricity, water, sewage, garade, washer/dr	House from the 80s but in great condition	Delete	Update
876 Robin BLVD.	4	3	1650	600	electricity , water, sewage, garbage, washer/	nice place	Delete	Update

[Add Property](#)

### Update Properties:

Address:

Rooms:

Bathrooms:

Sqft:

Rent:

Utilities:

Description:

### Add Property

Address:

Rooms:

Bathrooms:

Sqft:

Rent:

Utilities:

Description:

Nest Quest: Find a Place

Home   Users   Seekers   Tenants and Properties   Properties   Information Requests   Reviews

Information Requests

Current Information Requests:

User ID	Date Contacted	Address
1	Sun Dec 11 2022 00:00:00 GMT-0800 (Pacific Standard Time)	12345 Berry St.
2	Wed Sep 28 2022 00:00:00 GMT-0700 (Pacific Daylight Time)	12345 Berry St.
3	Fri Feb 24 2023 00:00:00 GMT-0800 (Pacific Standard Time)	23819 Bald Mtn Rd.

Add New Information Request

User ID: -- select an option --

Date Contacted: mm/dd/yyyy

Address: -- select an option --

Submit

Close

## Nest Quest: Find a Place

[Home](#) [Users](#) [Seekers](#) [Tenants and Properties](#) [Properties](#) [Information Requests](#) [Reviews](#)

### Reviews

#### Current Reviews:

Review ID	User ID	Address	Stars	Description
1	2	23819 Bald Mtn Rd.	4	great place! the location is nice
2	2	876 Robin BLVD.	4	Included electricity is a huge plus
3	2	23465 West Ave.	3	The rooms have a weird smell and the carpets

[Add New Review](#)

User ID: -- select an option -- ▾

Address: -- select an option -- ▾

Stars: -- select an option -- ▾

Description:

Submit

Close