EECE 571G Blockchain Software Engineering

House Rental DApp

Group 3

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Presentation Agenda

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Introduction

02

UI Design

03

Smart Contract

04

Live Demo

05

Q&A

Introduction

Blockchain, Ethereum, Smart Contract & DApp

Introduction

1. Blockchain
   - storage, transaction tracking without central authority
2. Ethereum
   - blockchain-based platform
   - solidity
3. Smart Contract
   - executes/enforce predefined terms of a contract
4. Decentralized Application (DApp)
   - smart contracts on ethereum

Benefits of DApp

1. Safer Data
2. Open Source
3. Transparent data
4. Less Downtime
5. Cost Reduction

User Interface Design

User Interface

1. **Sign up/in page**
   - Sign Up/In component
2. **Tenant page**
   - TenantBackground component
3. **Landlord page**
   - HouseInfo component
   - TenantBackground component

Sign up

Username

Password

Phone

Email

Please select your user type

SIGN UP

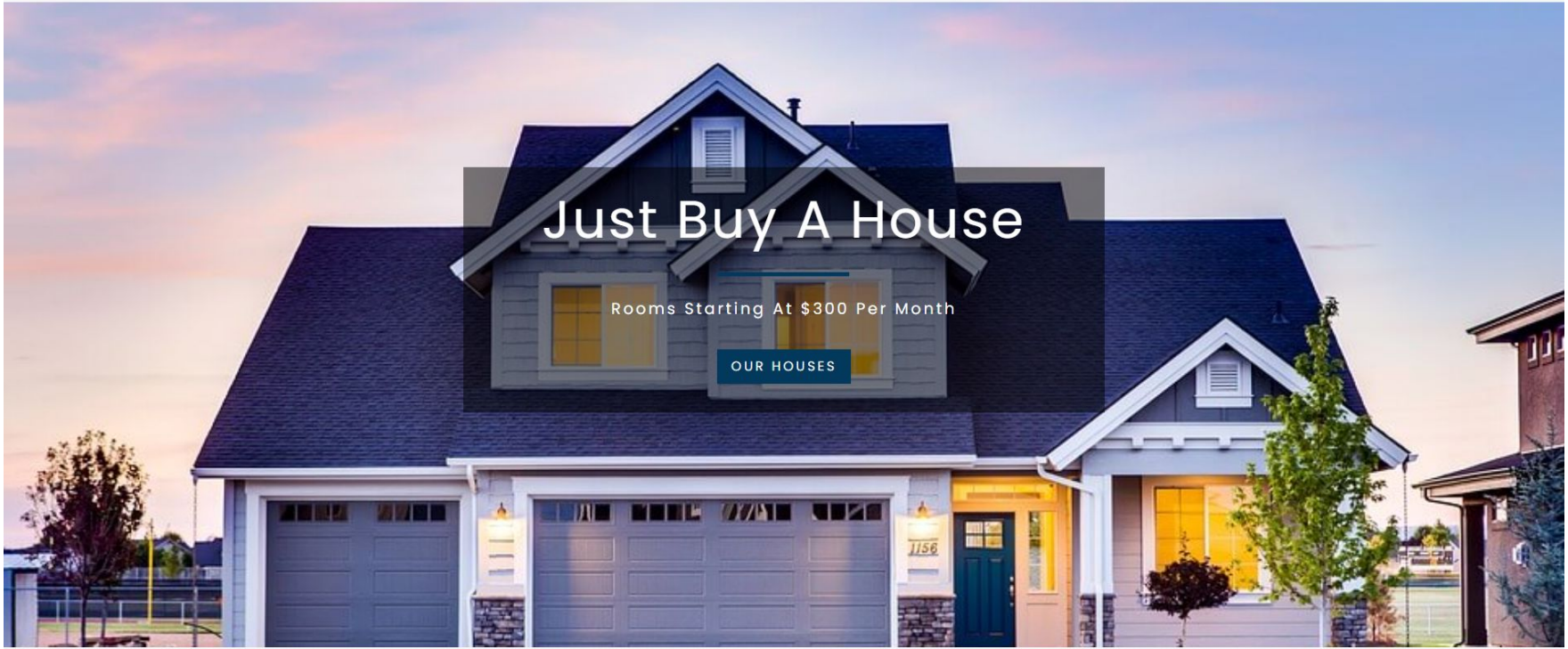
Sign in

Username

Password

LOGIN

Home Houses My Background Sign Agreement Hi Gg ! (Tenant)



Home Houses My Background Sign Agreement Hi Gg ! (Tenant)

Please Add/Edit Your Personal Background

Details

please close the UBC and have 2 bedrooms with 1 kitchen

Go Back

Info

Age

24

Income

25000

Male

true/false

Submit

Our Rooms

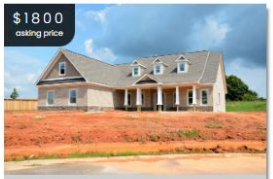
RETURN HOME

Houses

Leslie

Langara

Landlord101



Amanda

Description

This House Is Located In The Center Of Vancouver, With Gorgeous Seaview And With Amazing Infrastrutures Around, Such As T&T And Superstore. Plus It's Close To UBC :)

Info

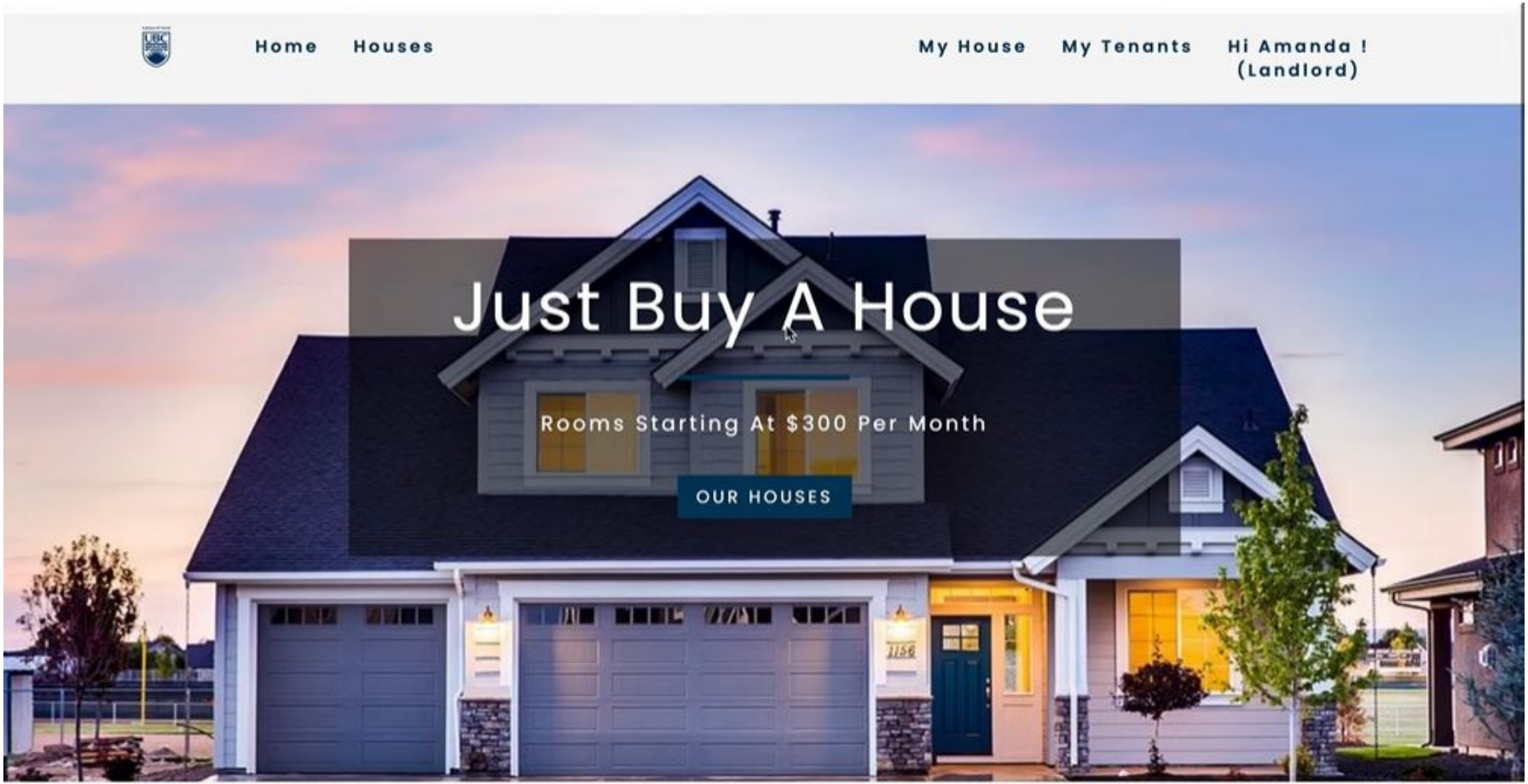
Rent : $666

Period : Immediately Available For Upto 6 Months

Address : Marine Gateway 46, Vancouver, BC

Availability : Yes

EXPRESS INTEREST


Home
Houses
My House
My Tenants
Hi Amanda !
(Landlord)
Just Buy A House
Rooms Starting At $300 Per Month
OUR HOUSES

Home Houses My House My Tenants Hi Josh ! (Landlord)

Please Add/Edit Your House Information

Details

Hi, this is my house @ 1234 W 1st Avenue.

Info

Rent

$2000

Period

06/2022

Address

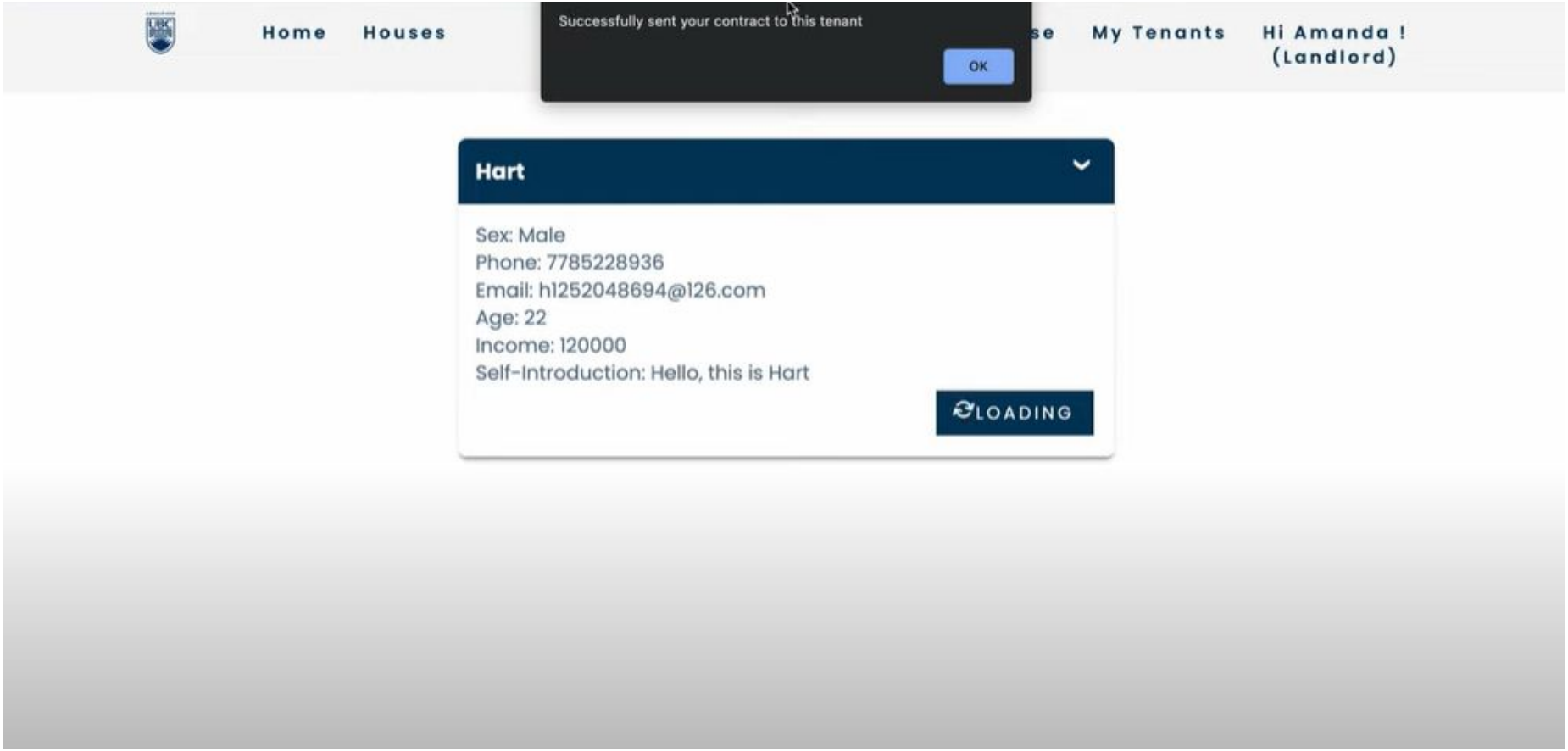
1234 W 1st Avenue

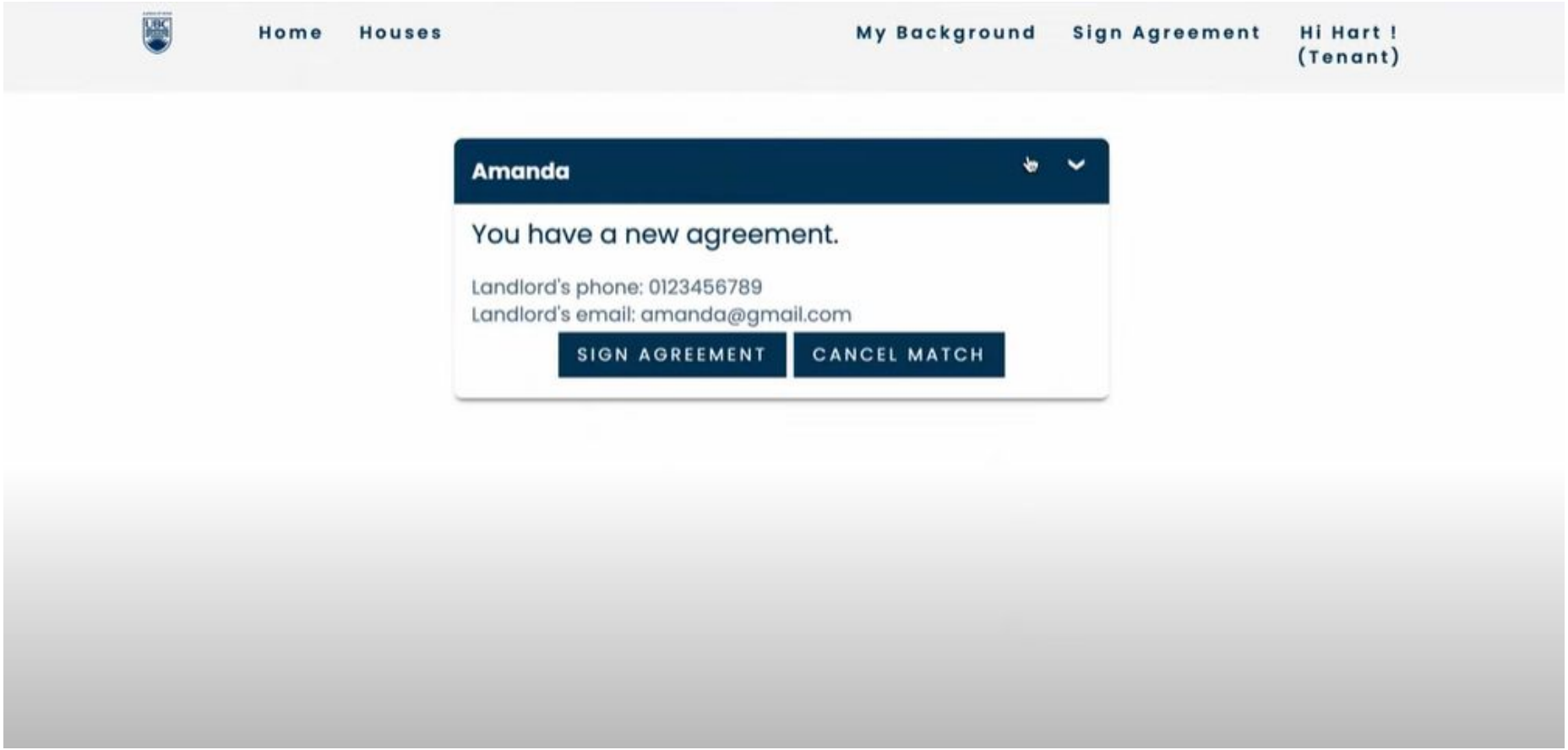
Available

true

Submit

Go Back


Home
Houses
Successfully sent your contract to this tenant
OK
se
My Tenants
Hi Amanda !
(Landlord)
Hart
Sex: Male
Phone: 7785228936
Email: h1252048694@126.com
Age: 22
Income: 120000
Self-Introduction: Hello, this is Hart
LOADING


Home
Houses
My Background
Sign Agreement
Hi Hart !
(Tenant)
Amanda
You have a new agreement.
Landlord's phone: 0123456789
Landlord's email: amanda@gmail.com
SIGN AGREEMENT
CANCEL MATCH

Cancel match successfully!

OK

Amanda

You have a new agreement.

Landlord's phone: 0123456789
Landlord's email: amanda@gmail.com

BRITISH COLUMBIA

Residential Tenancy Agreement

Important Notes: #RTB–1

The Residential Tenancy Branch (RTB) is of the opinion that this Residential Tenancy Agreement accurately reflects the *Residential Tenancy Act* (RTA) and accompanying regulations. The RTB makes no representations or warranties regarding the use of this Agreement. A landlord and tenant may wish to obtain independent legal advice regarding whether this agreement satisfies their own personal or business needs. For the rental of a manufactured home and a manufactured home site under a single tenancy agreement, use this Agreement form. For the rental of a manufactured home site use the Manufactured Home Site Tenancy Agreement (form RTB-6).

The words **tenant** and **landlord** in this tenancy agreement have the same meaning as in the RTA, and the singular of these words includes the plural. In this tenancy agreement, the words **residential property** have the same meaning as in the RTA. **Residential property** means a building, a part of a building or related group of buildings, in which one or more rental units or common areas are located; the parcel or parcels on which the building, related group of buildings or common areas are located; the rental unit and common areas and any other structure located on the parcel or parcels.

IF ADDITIONAL SPACE IS REQUIRED TO LIST ALL PARTIES, complete and attach Schedule of Parties (form RTB-20) RTB-20 used & attached ☐

RESIDENTIAL TENANCY AGREEMENT between: *(use full, correct legal names)*

the LANDLORD(S): ***(if every for landlord is a business name, use the 'last name' field box to enter the full legal business name)***

last name | first and middle name(s)

last name | first and middle name(s)

and the TENANT(S):

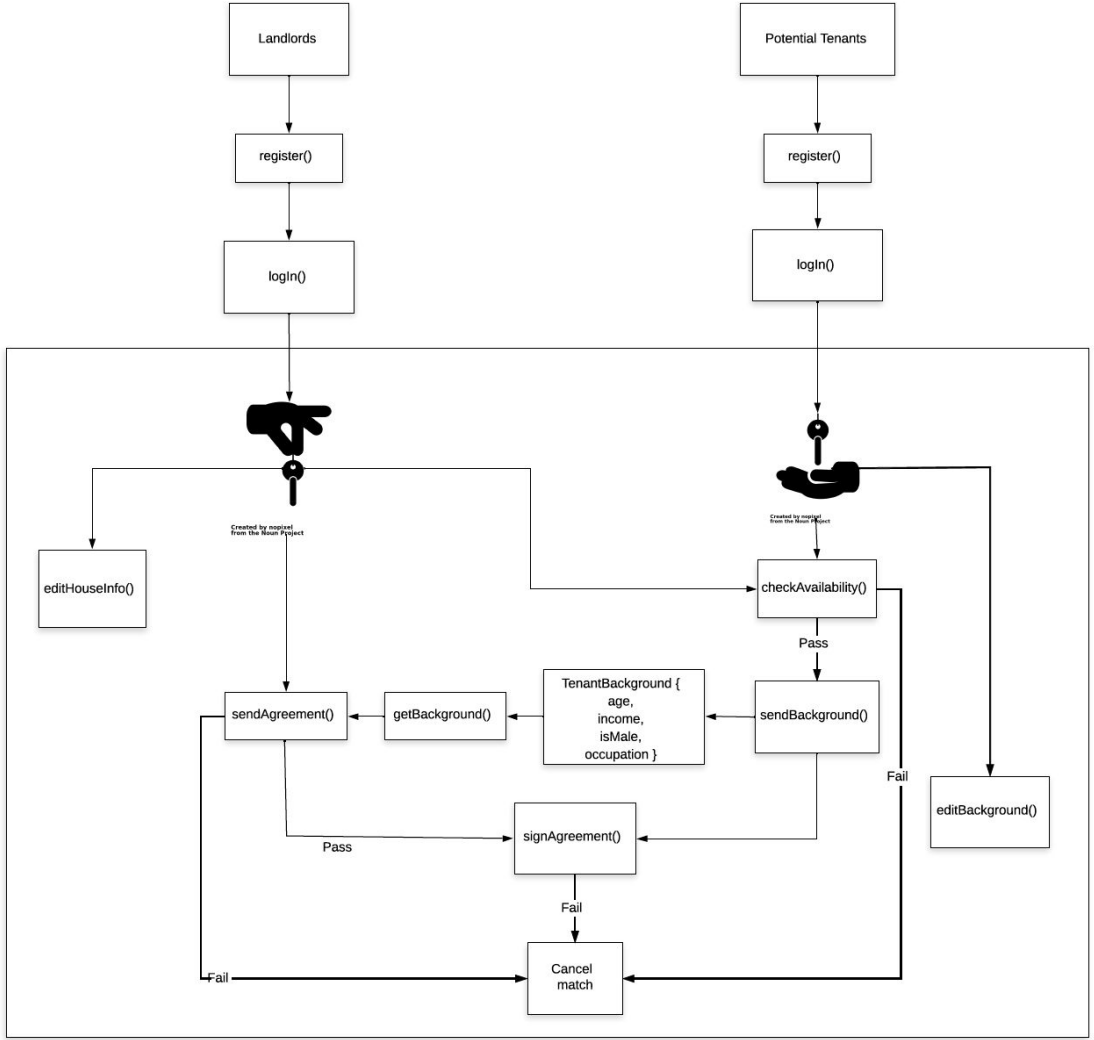
last name | first and middle name(s)

last name | first and middle name(s)

(optional) phone number | (optional) other phone number

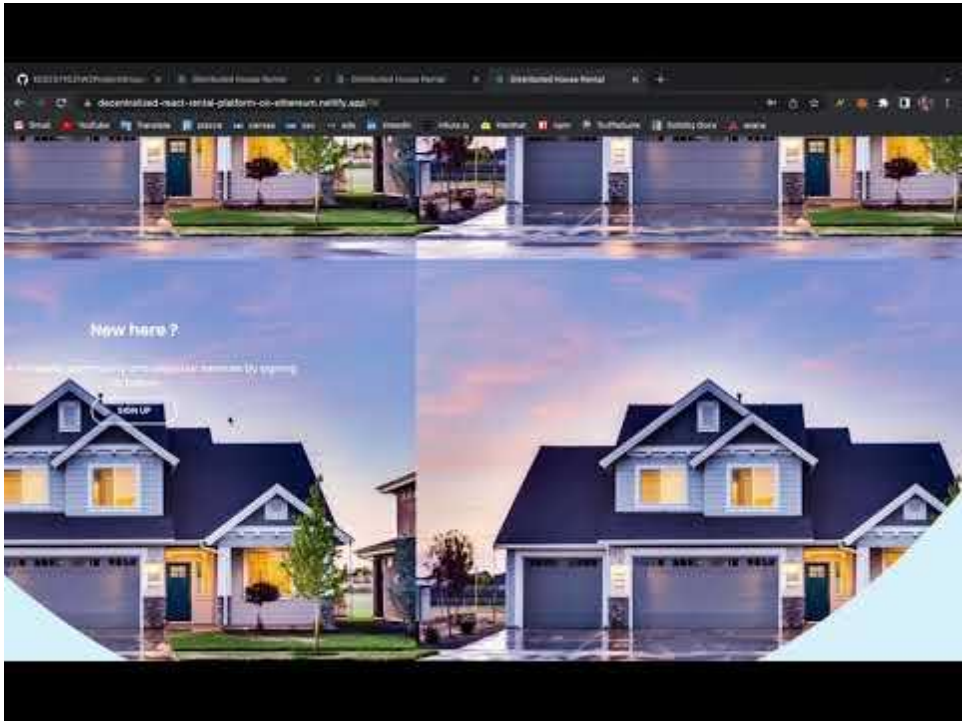
LOADING

Smart Contract


Landlords
Potential Tenants
register()
register()
logIn()
logIn()
Created by nagizel from the Noun Project
Created by nagizel from the Noun Project
editHouseInfo()
checkAvailability()
Pass
TenantBackground { age, income, isMale, occupation }
sendAgreement()
getBackground()
sendBackground()
Fail
editBackground()
Pass
signAgreement()
Fail
Cancel match
Fail

Project Demo

Demo



https://github.com/EECE571G21W2ProjectGroup3/TermProject

Questions Are Welcome