

Online Marketplace Domain Description

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INSO 4101-040

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Spring Semester 2024-2025

- **Situation:**

- Students at the University of Puerto Rico at Mayagüez (UPR-RUM) struggle to find housing within campus vicinity through online means due to a lack of a centralized platform to do so, leaving them with no other choice but to apartment search in person. This is inconvenient, time-consuming, and expensive; especially for those who live far from campus.

- **Entities**

- **Students:** Individuals who attend the UPR-RUM and need housing.
- **Properties:** Houses, apartments, or rooms available for rent in the vicinity of the university.
- **Property Owners or Managers:** Individuals who own or manage rental properties.
- **Tenants:** Individuals who occupy a rental property but do not own it, instead they rent it from the property owners.
- **Rental Agreements:** A contract between a student and property owner stating the terms for an exchange of money for a given period of time during which the student may occupy or live in the property.
- **Occupied Properties:** Properties that are currently being used for housing and are not put up for rent.
- **Unavailable Properties:** Properties that are currently not put up for rent, but no one is living in them yet.
- **Available Properties:** Properties that are currently unoccupied or will become unoccupied soon and are put up for rent.
- **House Listings:** Information about available properties, such as price, location, availability dates, amenities.
- **Rental Market:** The environment or system in which rental properties are offered by property owners and sought after by students.

- **Functions**

- **Searching for housing:** The process of students looking for available properties based on personal criteria (e.g. price, location, amenities)

- **Renting:** The action of students entering into rental agreements with property owners.
- **Negotiating:** The process during which students and property owners discuss the terms of a rental agreement.
- **Listing Properties:** The action of property owners adding their available properties to the rental market.
- **Events**
 - **Property Listed:** A property has been made available for rent by a property owner.
 - Marks the availability of a property in the rental market
 - **Property Rented:** A student has occupied a property and is bound by the rental agreement.
 - Marks the transition from unavailable property to occupied.
 - **Inquiry Made:** A student contacts a property owner to express interest in a particular property or to obtain more details.
 - Marks a student's initial engagement with a property owner.
 - **Rental Agreement Finalized:** A rental agreement's terms and conditions have been approved by both parties, student and owner, and the agreement has been signed.
 - Marks the transition from available property to unavailable.
- **Behaviors**
 - **Student Search Behavior:** The typical process a student follows when looking for a rental property: searching, comparing, and inquiring.
 - Interleaved with actions like evaluating property listings, contacting property owners, and negotiating rent.
 - **Property Owner Listing Behavior:** Property owners or managers list their available properties and respond to student inquiries.
 - Can be seen as an ongoing action where owners may update listings or interact with potential tenants.
 - **Rental Agreement Process:** The sequence of interactions between a student and a property owner to finalize a rental agreement.
 - Can include negotiation of terms, contract signing, and the exchange of rental payment.

Note: This document is subject to change as project focus expands or shrinks.