# DBMS Project Proposal

By-Akarsha Sehwag (2015010)
Kushagra Arora (2015049)

## Objectives:

We aim to implement a Rental Management System in which we can find an appropriate rental apartment for the user. We will use extensive search filters to get best match viz a viz filter by distance, price or rating.
This app can be used by a visitor who can put houses on rent and as a tenant who can manage their rent.

## Features:

### RELATIONAL SCHEMA

**Property**(*int*:property_id, *varchar*:description, *int*:price, *varchar*:location, *int*:rating);
**Visitor**(*int*:visitor_id, *varchar*:profile, *int*:num_of_views, *varchar*:preferred_location);
**Owner**(*int*:owner_id, *int*:num_properties, *varchar*:name);
**Rented**(*int*:owner_id, *int*:property_id, *int*:visitor_id, *int*:rent_to_be_paid);
**Review**(*int*:property_id, *int*:visitor_id, *int*:rating, *varchar:*comment, *varchar:*visitor_name);

- Owners:
    - Update the database by adding a new rental entry.
    - Receives request for the rentals.
    - Approve/reject the request based on the profile of the tenant.
    - Set due payment of their property, for the tenant to pay.

- Visitors:
    - Choose from the given sorted rental apartments.
    - Request the owner for accommodation on rent.

- <u>Tenant</u>:
    - Pay the due rent.
    - Search for a new accommodation and apply for it if their due amount is zero.

- <u>Sorting the rentals</u>:
    - By Price
    - By Distance (Using Google maps API)
    - By Rating (Provided by the visitors/tenants)

## **Sample Queries:**
- Find Available accommodations which has been rated over 3/5.
- View all owners having more than 2 rentals available.
- For a given landlord, find all the tenants.
- Find the number of properties owned by the landlord.
- Find the owner having the maximum number of properties.

## **Complex Queries:**
- For a given landlord, find all the tenants(visitors who have rented a property) who have not paid the rent yet.
- Find all the rentals which fall into a specified range of rent.
- Return all the properties which have at least X 5-Star rating.
- Print top 10 rentals which have frequently been occupied.
- Find Rentals within the range of 5KM of his preferred location.

## ER DIAGRAM