



Boston Area Activities

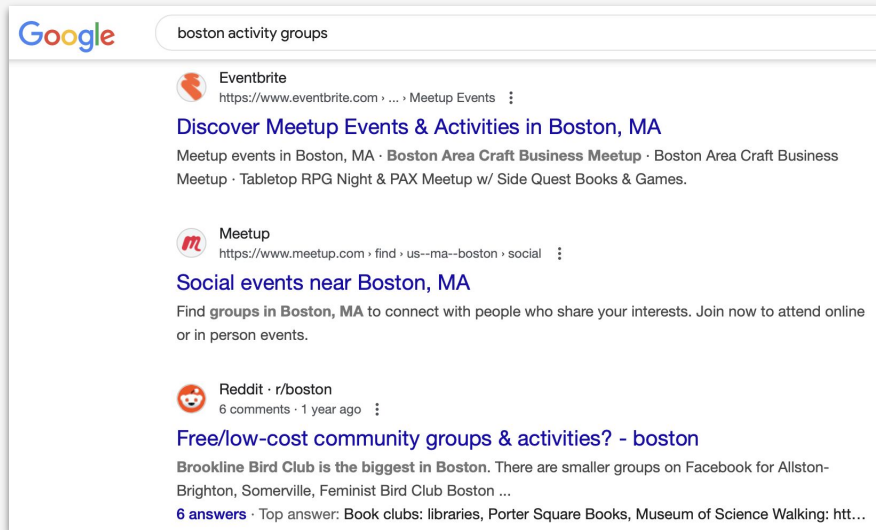
The Databasers

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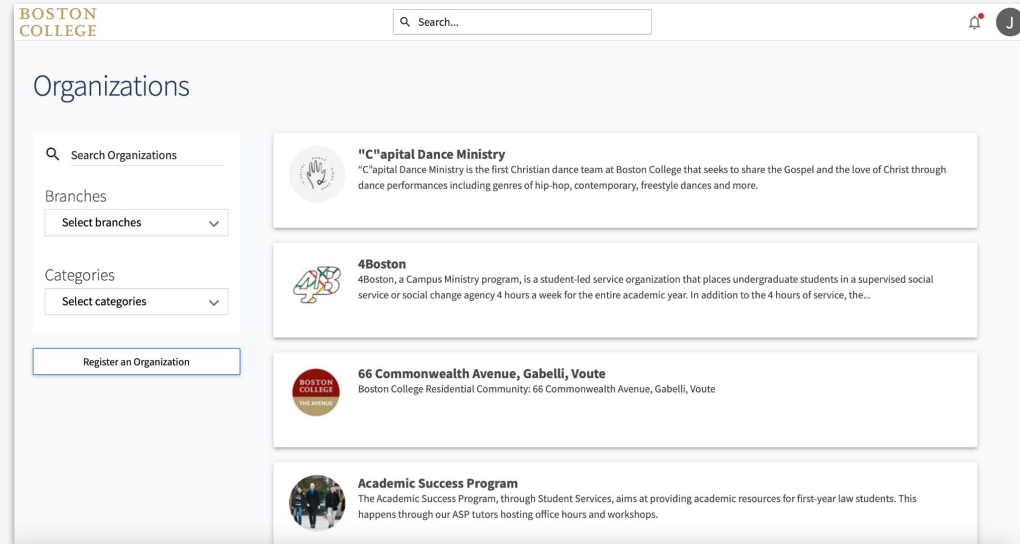
The Real-World Problem

- Lack of a centralized database of local activity groups in the Boston area



The Real-World Solution

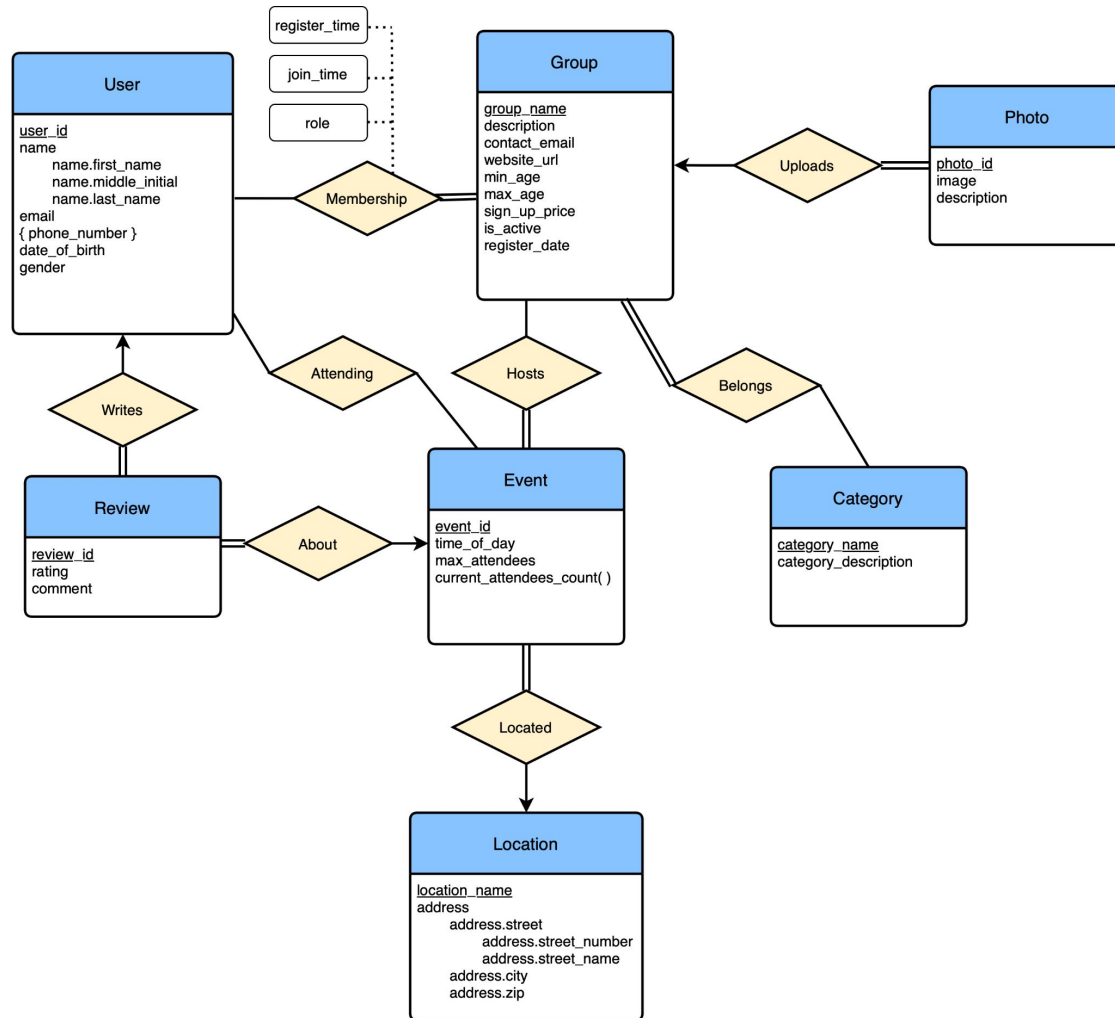
- An all-in-one web application to discover and engage with local activity groups
- Browse, join, and create groups and events!



1

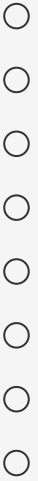
E-R Analysis





2

Database Schema



Groups(group_name, group_description, contact_email, website_url, min_age, max_age, sign_up_price, is_active, register_date)

Categories(category_name, category_description)

Locations(location_name, street_number, street_name, zip)

→ **Zip_City**(zip, city)

Events(event_id, time_of_day, max_attendees, current_attendees_count, location_name)

→ **Review**(review_id, rating, comment, user_id, event_id)

Users(user_id, first_name, middle_initial, last_name, email, date_of_birth, gender)

Photos(photo_id, photo, photo_description, group_name)

User_Phone(user_id, phone_number)

Belongs(group_name, category_name)

Membership(user_id, group_name, register_time, join_time, user_role)

Attending(user_id, event_id)

Hosts(group_name, event_id)

many-to-many {





Events(event_id, time_of_day, max_attendees, current_attendees_count, location_name)

location_name not null

time_of_day not null

check (max attendees > 0)

check (current_attendees_count >= 0)

current_attendees_count not null

foreign key (location_name) references Locations

→ trigger: adjusts current_attendees_count after insert AND deletion on Attending with count of tuples in Attending matching event_id

→ trigger: blocks insert on Event if current_attendees_count does not equal 0

Review(review_id, rating, comment, user_id, event_id)

user_id not null

event_id not null

rating not null

→ check (1 <= rating <= 5)

foreign key (user_id) references Users

foreign key (event_id) references Events



Membership(user_id, group_name, register_time, join_time, user_role)

user_role not null

→ check (user role in ('admin', 'member', 'waitlist'))

join_time not null

register_time not null

foreign key (group_name) references Groups

foreign key (user_id) references Users

→ trigger: block insert on Membership if User's age (calculated using today's date and date_of_birth) is > max_age or < min_age

Attending(user_id, event_id)

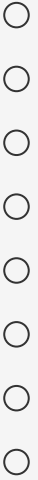
foreign key (user_id) references Users

foreign key (event_id) references Events

→ trigger: blocks insert on Attending if Event with matching event_id has max_attendees = current_attendees_count

3

Web Application



Features

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User authentication

Browse groups by name or category

Join/leave/create **groups**

Join/drop/create **events**

