

## Bulletin Board: Announceit

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### 1. Introduction

College campus have a lot of life going on and many opportunities to take. People and organizations want to announce their events, used books, tutoring, housing and many other things. They mostly use physical bulletin boards to reach the campus community. This require much effort such as manual labor, printing papers, time, limited space and accessibility.

The target clients are students, professors, and faculty members in the campus of UPRM. This application will be both a mobile and web-app because it will reach a broader clientele without difficulty.

The technologies that will be used are HTML5, CSS3, Javascript, AngularJs, Ionic, PostgreSQL, and Java-Play. This will result in a consistent development with both mobile and desktop applications.

### 2. Client App Description

1. **Home page:** The app will show all announcements regardless of not having a user account.
2. **Searching:** Any user can search any post by keyword and category.
3. **Sign-up:** Users will register giving their email and personal information.
4. **Creating an announcement:** A registered user will be able to post his announcement. The user must choose a category of the announcement by books, tutoring, events, housing, or others. The description of the announcement will be in a textbox with the option of an attachment, like pictures, pdf etc.

Note: Registered users can only have one announcement in the home page.

Premium users can have unlimited announcements in the home page.

5. **Messaging:** Registered user can privately message with the owner of the announcement.
6. **Payment:** Registered user can pay the owner of the announcement according to their own arrangements.
7. **Settings:** The registered user can edit their attributes.
8. **Profile:** The registered user can see their history of payments, messages, and posts.
9. **Reports:** The registered user can report a post if the content is inadequate.

Technologies. HTML5, CSS3, Javascript, AngularJs, and Ionic

### 3. Server side description

#### Server Capabilities

- The system shall allow the user to sign in into an existing account or create a new account.
- The signup process will send validation email after registering an account using SendGrid.
- The administrator will have access to all user data.
- The administrator will be able to delete any user account that does not abide by the site's terms and regulations.

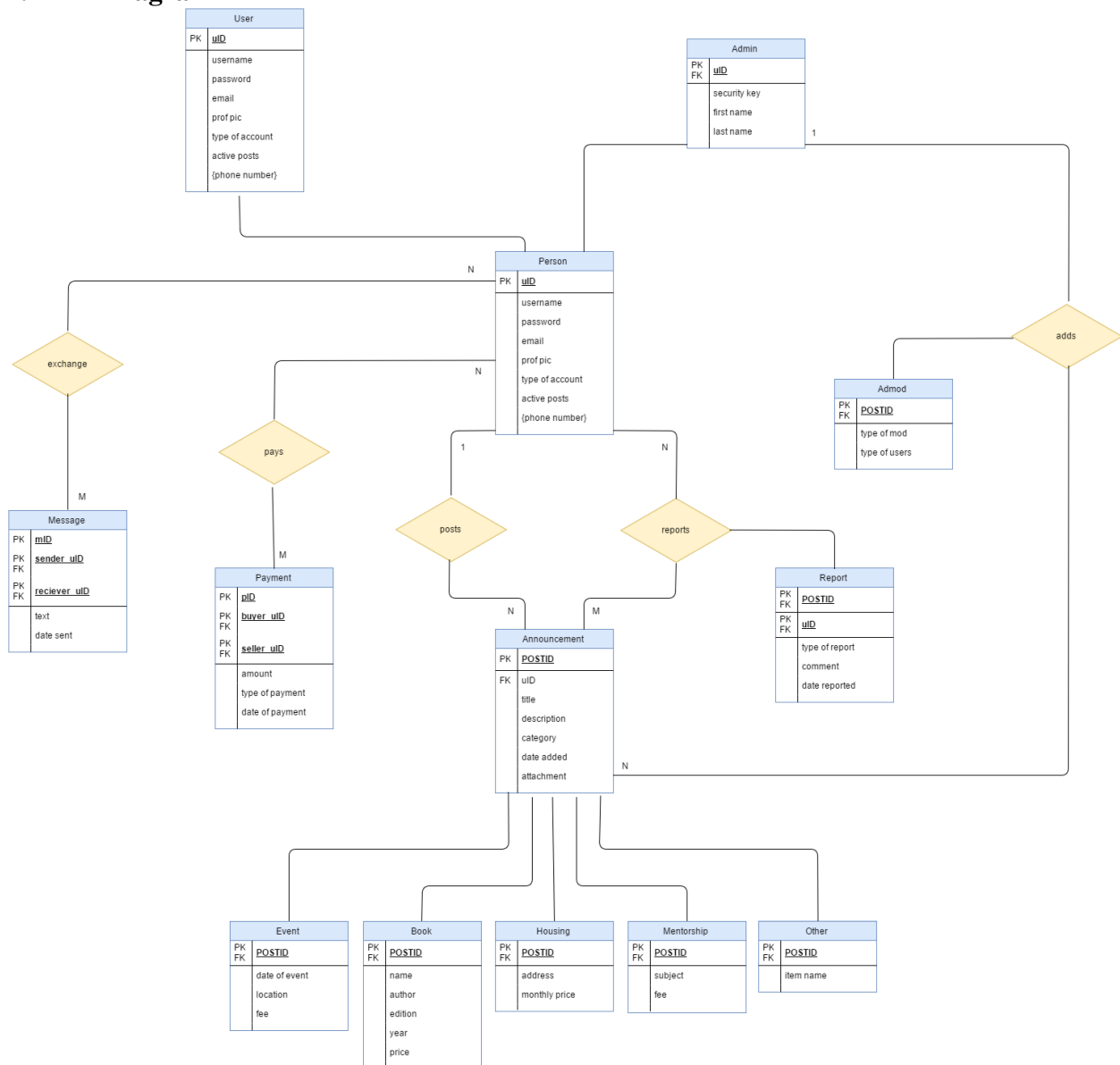
- User registration is not necessary for browsing the main page.
- The system will prevent spamming of announcements.
- Payment will be supported by citrus.js library
- A notification should be displayed when there is no internet connection.
- A notification should be displayed when announcements have been correctly submitted.
- A notification should be displayed when there is an error while submitting the announcement.

The server side tier is going to be developed using Java-Play, SendGrid and PostgreSQL.

Tables:

1. User (uID, username, password, email, prof pic, type of account, active posts, {phone number})
2. Admin (uID, security key, first name, last name)
3. Person (uID, username, password, email, prof pic, type of account, active posts, {phone number})
4. Announcement (POSTID, uID, title, description, category, date added, attachment)
5. Book (POSTID, name, author, edition, year, price)
6. Mentorship (POSTID, subject, fee)
7. Event (POSTID, date of event, location, fee)
8. Housing (POSTID, address, monthly price)
9. Other (POSTID, item name)
10. Admod (POSTID, type of mod, type of users)
11. Message (mID, sender uID, receiver uID, text, date sent)
12. Payment (pID, buyer uID, seller uID, amount, type of payment, date of payment)
13. Report (POSTID, uID, type of report, comment, date reported)

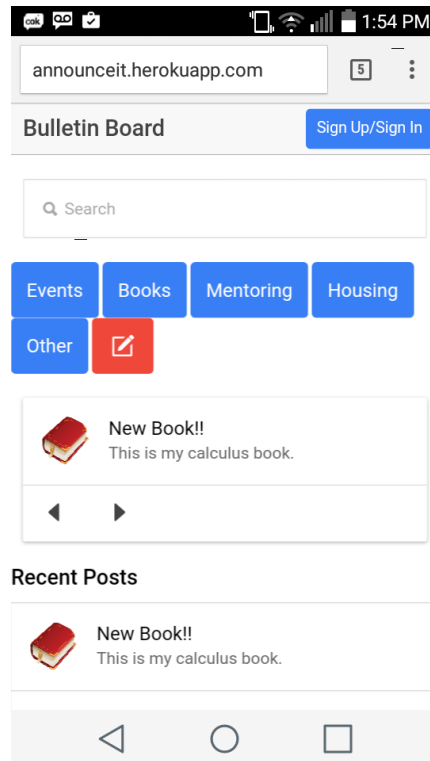
## 4. E-R Diagram



- The E-R Diagram represents the tables above.
- For the entities “User” and “Admin” will share the attributes included in the entity “Person”.
- The relationship between “Person” and “Message” is N by M. Multiple “Person” can exchange multiple “Messages”.
- The relationship between “Person” and “Payment” is N by M. Multiple “Person” pays multiple times.

- The relationship between “Person” and “Announcement” is 1 by N. A “Person” posts multiple “Announcements”.
- The relationship between “Person” and “Report” is N by M. Multiple “Person” reports an “Announcement”. A “Person” reports multiple “Announcement”.
- The relationship between “Admin” and “Admod” is 1 by N. The “Admin” adds multiple “Admod” (Admin Modifications).
- The entities “Event”, “Book”, “Housing”, “Mentorship”, and “Other” are sub-entities of the “Announcement” entity.

## 5. Client – Side Screen Shots

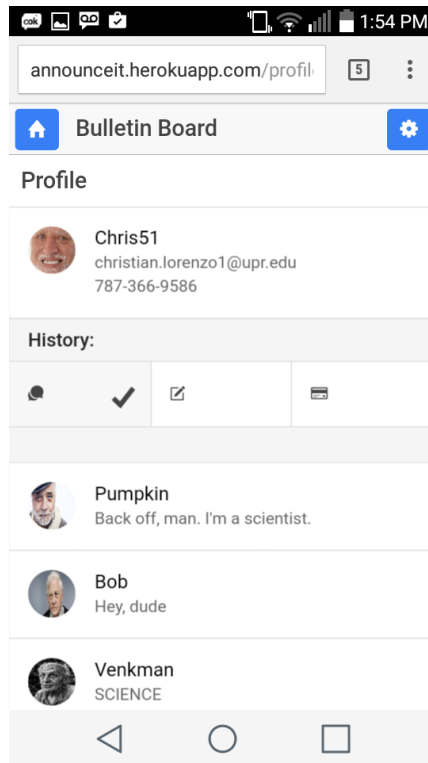


- This is the homepage for Bulletin Board.
- The “Sign Up/Sign In” button takes the user to a form where the user has to input all the necessary information to create an account or to log in into the system.
- The search will filter the results by their title or description, but is not enabled yet.
- The “Events”, “Book”, “Mentoring”, “Housing”, “Other” buttons, will filter the results by category. For example, clicking on the “Books” button will result in the view of posts that fall under the books category only.
- The button with the “write symbol” will take the user to the New Post page.

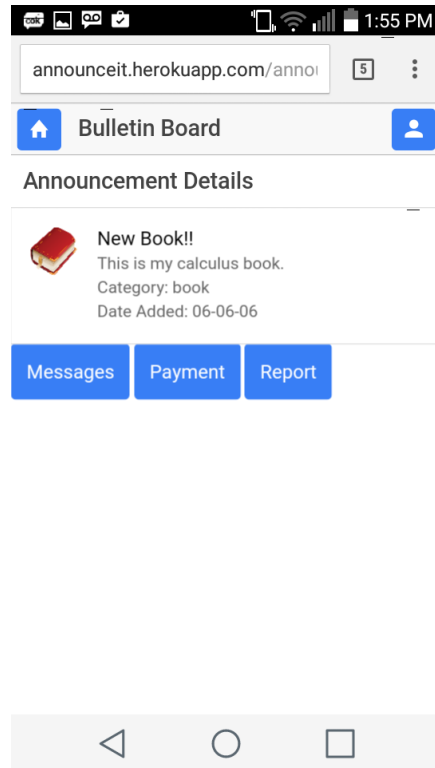
The screenshot shows a mobile application interface for a 'Bulletin Board'. At the top, there is a status bar with various icons and the time '1:54 PM'. Below the status bar is a browser address bar showing the URL 'announceit.herokuapp.com/newp'. The main header of the app is 'Bulletin Board', flanked by a home icon on the left and a user profile icon on the right. The title of the current screen is 'New Post'. The form consists of several input fields: 'Title:', 'Description:', 'Category:', 'Event', 'Book', 'Housing', 'Mentorship', and 'Other'. The 'Category:' field is currently selected, and a list of categories is displayed below it: 'Event', 'Book', 'Housing', 'Mentorship', and 'Other'. At the bottom of the screen, there is a navigation bar with three icons: a back arrow, a circle, and a square.

Title:
Description:
Category:
Event
Book
Housing
Mentorship
Other

- This is the new post page.
- The user will input all the necessary information to make a new post.
- The user will select the category of the post.
- The button with the “avatar symbol” will take the user to their profile.

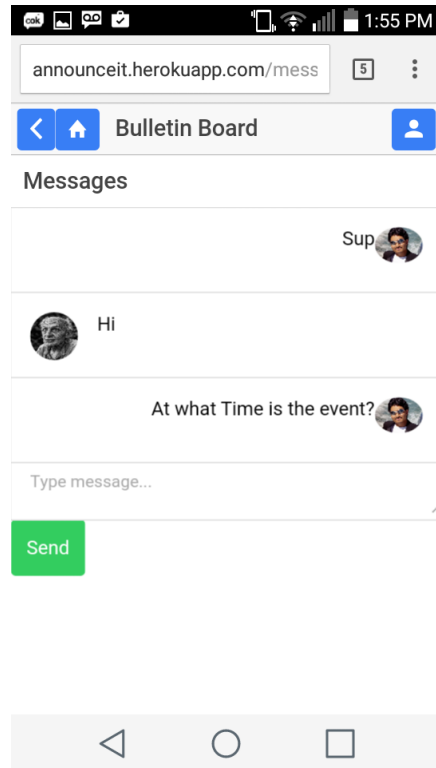


- This is the profile page.
- The button with the “home symbol” will take the user to the homepage.
- The button with the “gear symbol” will take the user to the settings page, where the user can edit their information.
- The profile details shown in this page will be the profile picture, username, email, and phone number. The user can select the “message symbol” to view their messages; Or the user can select the “write symbol” to view their previous posts; Or the user can select the “card symbol” to view their payment history.



- This is the announcement details page.
- The user will see the details of their posts.
- The “Messages” button will take the user to the chat page of the original poster and the user.
- The “Payment” button will take the user to a page in which they can make a payment to the original poster.
- The “Report” button will take the user to a page where they can report the post.





- This is the messages page.
- The user can send and receive messages in this page.