

Danger Alert

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Team 10

CS157A Fall2020

Project Requirements Section

Functional Requirements

This application provides functionality for our three types of users; general users, authorities, and admin. The admin user is included as a separate type of user.

Users: These are the general public who can view the posts made by other people in the same county. They are able to post a report by providing the necessary information (incident, address, etc). They can also search and reply to other users' posts that are pertaining to the same crime. The users can also save posts for ease of access.

Authorities: The authorities are the people from departments such as the Fire dept., Ambulance, Police dept., and other departments like animal, weather, etc. People from each department keep an eye on the posts and approve the legitimacy of the reported crime. If the crimes are not legitimate, they have the access to remove a post. They can further act according to the nature of the situation.

Admins: The admin is the main programmer behind the whole web application who administers all the posts and checks for the legitimacy of the posts that are posted by the general users. They have the ability to remove any user's posts. This is to allow false reports to be filtered out.

1. Reporting/Posting Information

- The user will be able to post a report of an incident
- The system will require the user to fill out a form about said incident. This information will be stored in the database

2. View Posted Reports

- The user will be able to see a post and view the corresponding report
- The system will provide the report the user wishes to view

3. User Feed

- The user will see a list of recent posts from other users.
- The system will retrieve the recent posts and display them on the user's activity page

4. Edit/Delete Post

- The user will be able to edit or delete their own posts as they wish
- The system will retrieve the post and update it based on the user's new input
- The system will delete the corresponding post in the database

5. Reply to posts

- The user will be able to reply to other users' posts.
- The system will link the replies to the corresponding report within the database

6. Notifications

- Authorities can request that they are notified of new incidents in an area
- The system will check for new incidents and return those fitting indicated criteria

7. Create User Account

- User accounts are only required for doing more than just viewing. Different account types include general users, authorities, and admins.
- The system provides a form to create an account. They have an option to register if they don't already have an account.

8. Flag/remove false reports

- Admins can flag or remove reports deemed incorrect or not relevant
- The system will remove designated reports from the database and add/remove flags as requested

9. Search for Reports

- Users are able to search through the database for posts with given parameters.
- The system will return to the user any reports matching their request parameters and let them know if none are found.

10. Save Posts

- User will be able to save any posts to view later
- The system will flag the posts saved by the user and display them in the "Saved Posts" Tab

11. Get User Information

- Authorities are able to retrieve the contact information of the user in order to follow up investigation
- The system will ensure that authorities are able to see this information when displaying reports/posts

12. Announcement Page

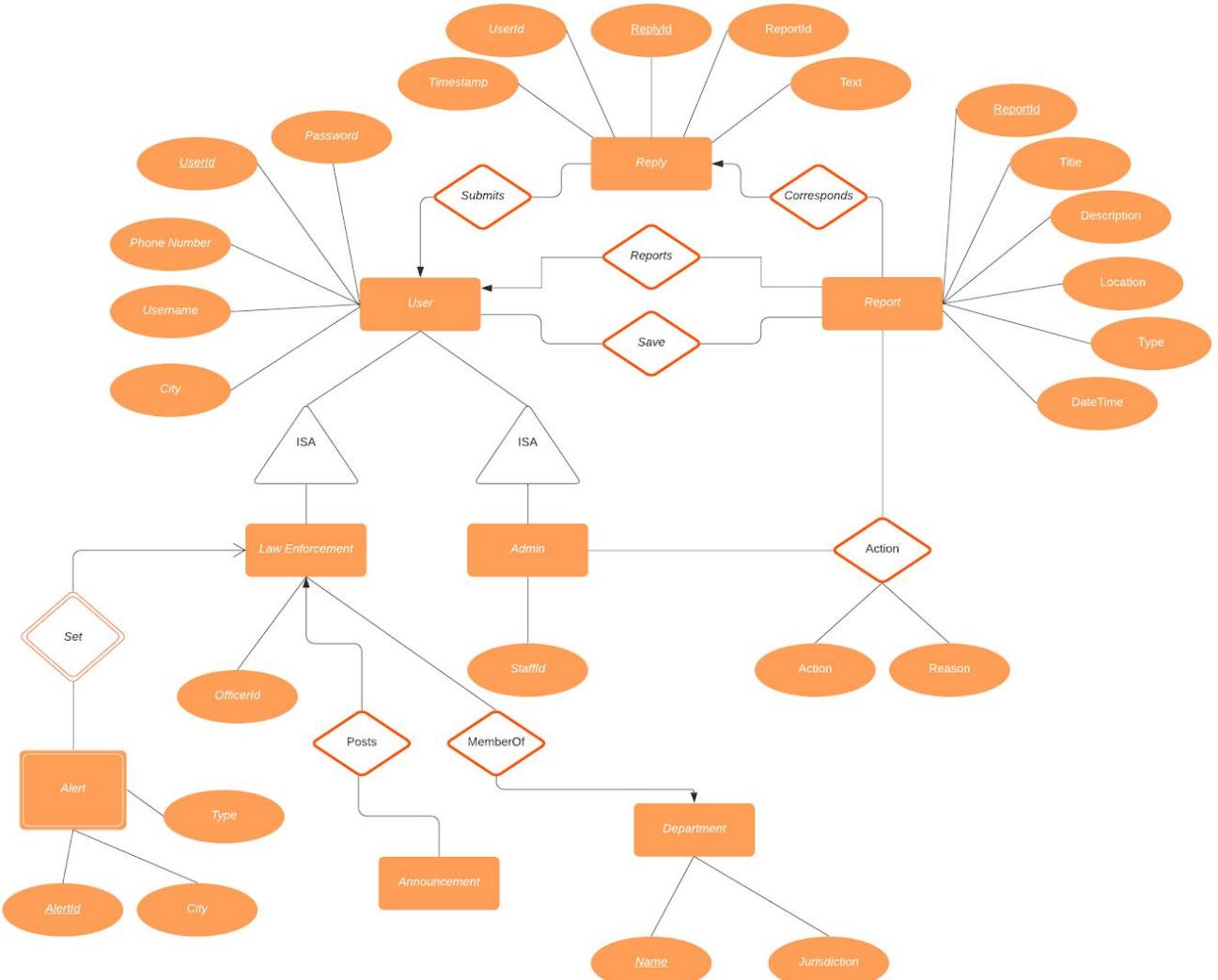
- Authorities can make a public announcement on the Announcement page.

13. Members From Departments

- List all the authorities and their departments

Project Design Section

ERD Diagram



Schemas and Explanations

1. Users(userId, username, password, phone number, city)
 - Contains all the user information, and sets userId as P.K.
 - City will be used for filtering relevant reports on the homepage.

userid	username	password	phonenumerber	city
1	user1	password1	4085551111	San Jose
2	user2	password2	4085552222	Santa Clara
3	user3	password3	4085553333	Campbell
4	user4	password4	4085554444	Gilroy
5	user5	password5	5105555555	Los Altos
6	user6	password6	5105556666	Milpitas
7	user7	password7	5105557777	Morgan Hill
8	user8	password8	5105558888	Monte Sereno
9	user9	password9	6505559999	Mountain View
10	user10	password10	6505551010	Palo Alto
11	user11	password11	6505551100	Cupertino
12	user12	password12	6505551212	Los Altos Hills
13	user13	password13	6695551313	Saratoga
14	user14	password14	6695551414	Sunnyvale
15	user15	password15	6695551515	Los Gatos
NULL	NULL	NULL	NULL	NULL

2. Report(reportid, title, description, location, datetime, type, flag)
 - Contains information of a report which will be inputted by form by the user

reportid	title	description	location	datetime	type	flag
3	Man spotted holding a gun	White male seen walking with gun downtown	San Jose	2020-10-30 18:20:30	Fire	1
4	Stealing	A mysterious person stole a purse from a lady n...	San Jose	2020-10-30 18:21:24	Robbery	0
5	Storm Clouds Downtown	Looks like it's about to rain	San Jose	2020-10-30 18:21:24	Weather	0
6	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Mountain View	2020-10-30 18:21:24	Suspicious Activity	0
7	Fire spotted near 9th	I saw a fire near 9th St.	Mountain View	2020-10-30 18:21:24	Fire	0
9	Stealing	A mysterious person stole a purse from a lady n...	Mountain View	2020-10-30 18:21:24	Robbery	0
10	Storm Clouds Downtown	Looks like it's about to rain	Mountain View	2020-10-30 18:21:24	Weather	0
12	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	2020-10-30 18:21:24	Fire	0
13	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 18:21:24	Gun	0
14	Stealing	A mysterious person stole a purse from a lady n...	Palo Alto	2020-10-30 18:21:24	Robbery	0
15	Storm Clouds Downtown	Looks like it's about to rain	Palo Alto	2020-10-30 18:21:24	Weather	0
16	Incident	Description	San Jose	2020-11-08 13:09:52	crime	0
17	Incident	Description	San Jose	2020-11-08 13:11:25	crime	0
18	Incident	Description	San Jose	2020-11-08 13:42:52	Crime	0
19	Suspicious Activity on 4th	I saw someone suspicious getting out of a car.	Santa Clara	2020-11-08 18:26:19	Crime	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL

3. Admin(userId, staffId)
 - Contains admin user information. Uses userId and staffId as keys.

	userid	staffid
►	3	1
	4	2
	1	3
	10	4
	8	5
	6	6
	12	7
	9	8
	14	9
	13	10
	11	11
	15	12
	7	13
	2	14
	5	15
	NULL	NULL

4. Law Enforcement(userid, officerid)

- Contains information of each officer and his/her department.
- Their actual offierId and their department name will be combined as a key.

	userid	officerid
►	8	1
	1	2
	9	3
	13	4
	14	5
	10	6
	15	7
	7	8
	3	9
	12	10
	4	11
	6	12
	11	13
	5	14
	2	15
	NULL	NULL

5. Alert(userid, alertid, type, city)

- An alert will be set by an authority(law enforcement) which contains the alert type and which city it happened.

alertid	officerid	type	city
1	1	robbery	San Jose
2	1	stealing	San Jose
3	1	fire	San Jose
4	2	robbery	Santa Clara
5	2	medical	Santa Clara
6	2	trespassing	Santa Clara
7	2	protest	Santa Clara
8	3	fire	Mountain View
9	3	sexual harassment	Mountain View
10	4	stealing	Palo Alto
11	4	weather	Palo Alto
12	4	suspicious activity	Palo Alto
13	4	trespassing	Palo Alto
14	4	protest	Palo Alto
15	5	fire	San Jose
NULL	NULL	NULL	NULL

6. Reply(replyid, userid, reportid, text, timestamp)

- A table to store the record for which officer takes care of which report.
- Mainly used as a log for logging which officer initiated an investigation

replyid	userid	reportid	text	timestamp
5	1	52	This is a reply	2020-12-06 00:11:50
9	1	12	I saw it too!	2020-12-06 18:40:30
10	1	14	There was a white car near there as well	2020-12-06 19:25:23
11	28	54	Fire is now out	2020-12-06 19:25:56
12	28	4	I think the same person robbed me	2020-12-06 19:26:34
13	28	7	This is a reply	2020-12-06 19:28:42
14	7	54	I think it started near the corner store	2020-12-06 19:29:34
15	7	4	I'm replying to this post	2020-12-06 19:31:17
16	3	54	This is me replying	2020-12-06 19:31:47
17	3	5	The weather is clear now	2020-12-06 19:31:58
18	3	5	This is me again replying	2020-12-06 19:32:07
19	3	9	Why is this the same post	2020-12-06 19:32:20
20	10	10	Why is it raining now!?	2020-12-06 19:32:51
21	10	54	I think the blaze started around 10 am	2020-12-06 19:33:15
22	10	14	Robbery!?	2020-12-06 19:33:49
NULL	NULL	NULL	NULL	NULL

7. Announcement(announcementid, userid, title, description, datetime)

- Contains information of an announcement submitted by an authority

announcement...	userid	title	description	datetime
6	1	Test	Test	2020-12-01 21:38:32
8	1	This is an announcement	Announcmeent stuff,.....	2020-12-06 16:31:18
9	10	We're Recruiting	Come join us for an info session	2020-12-06 19:35:42
10	10	This is an announcement	Me again, here is an announcement	2020-12-06 19:36:09
11	2	Test Announcement	Testing announcement	2020-12-06 19:36:43
12	2	Be Advised	Be advised there is a man with a gun on the loose	2020-12-06 19:37:23
13	13	Annual Roundtable	The annual roundtable is tonight at 7pm	2020-12-06 19:38:08
14	13	Reminder	Reminder that the roundtable is in 1hr	2020-12-06 19:38:24
15	7	Stay Home	COVID stay at home orders in place	2020-12-06 19:39:03
16	7	Re: Stay at Home	Curfew is in place until 12/30	2020-12-06 19:39:52
17	10	Seminar	We're holding a seminar on gun safety	2020-12-06 19:41:04
18	4	Mental Health	Please take care of your mental health	2020-12-06 19:41:35
19	4	Wild Dog	A wild dog is running around the streets pleaaase...	2020-12-06 19:42:03
20	8	Danger Zone	Please stay away from 4th and Santa Clara today	2020-12-06 19:42:47
21	8	COVID Prections	Please take precautions when going out	2020-12-06 19:43:24
NULL	NULL	NULL	NULL	NULL

8. Department(Name, Jurisdiction)

- Contains different department information such as their name (Police, Highway Patrol, Fire Department and so on) and their jurisdiction area.

name	jurisdiction
Campbell Police Department	Campbell
Cupertino Police Department	Cupertino
Gilroy Police Department	Gilroy
Los Altos Police Department	Los Altos
Los Gatos Police Department	Los Gatos
Milpitas Police Department	Milpitas
Morgan Hill Police Department	Morgan Hill
Mountain View Fire Department	Mountain View
Mountain View Police Department	Mountain View
Palo Alto Police Department	Palo Alto
San Jose Fire Department	San Jose
San Jose Police Department	San Jose
Santa Clara Fire Department	Santa Clara
Santa Clara Police Department	Santa Clara
Sunnyvale Police Department	Sunnyvale
NULL	NULL

9. Save(userId, ReportID)

- A table for each user to store reports for future referencing.

	userid	reportid
▶	1	4
	1	6
	1	14
	2	8
	2	14
	3	7
	5	8
	5	13
	7	3
	7	15
	9	10
	9	14
	10	11
	13	6
	14	12
	NULL	NULL

10. Action(staffid, reportid, reason, action)

- A table for logging what actions does the admin take to the report and why.
- For example, the admin can remove the report if it is misleading/misinformation.

sta'fid	reportid	reason	action
1	12	resolved	removed
2	6	resolved	removed
3	14	spam	removed
4	10	misinformation	flagged
5	8	resolved	removed
6	7	spam	removed
7	1	misinformation	flagged
8	11	misinformation	flagged
9	3	spam	removed
10	15	misinformation	flagged
11	9	spam	removed
12	13	resolved	removed
13	2	misinformation	flagged
14	4	resolved	removed
15	5	spam	removed
NULL	NULL	NULL	NULL

11. Reports(userid, reportid)

- A logging table for storing which report is filed by which user.
- It will be used for authorities to ask further questions.

	userid	reportid
▶	1	1
	1	2
	1	3
	1	8
	1	11
	2	4
	4	12
	6	5
	7	14
	8	13
	10	6
	10	7
	12	9
	14	15
	15	10
	NULL	NULL

12. MemberOf(officerid, departmentName)

- Keeps track of where each law enforcement is from

	officerid	departmentName
▶	1	San Jose Police Department
	2	Milpitas Police Department
	3	Milpitas Police Department
	4	Sunnyvale Police Department
	5	Santa Clara Police Department
	6	San Jose Police Department
	7	San Jose Police Department
	8	Palo Alto Police Department
	9	Sunnyvale Police Department
	10	Cupertino Police Department
	11	San Jose Fire Department
	12	Los Altos Police Department
	13	Campbell Police Department
	14	Santa Clara Fire Department
	15	Gilroy Police Department

Project Implementation Section

Running the Application

1. Install Tomcat, Java JDK, and MySQL.
2. Opening the project in Eclipse, change jdbcURL, dbUser, and dbPassword in Auth.java to your own MySQL url, user, and password.
3. To export a .war file, in Eclipse, right click on the project and select “Export -> WAR file”. This will generate a .war file you can deploy to Tomcat.
4. Start up your Tomcat server and navigate to “localhost:8080/manager/html”
 - a. At this point you will likely be asked for a manager password, enter one if you have already set one up, if not follow this [link's](#) instructions to set one up.
5. Scroll down to the Deploy section where you should see a subsection “WAR file to deploy”
6. Choose the .war file you generated and click deploy.
7. Back at the top of the page you should now see the name of the .war file you deployed clicking on it will lead you to the homepage of the application

*please note that these instructions are under the assumption that your MySQL password is not the same as ours, if you are setting up a new MySQL root password you can use the prepared .war file included in the submission using our root password of “9Cn99N54!”

1. Reporting/Posting Information

- The user will be able to post a report of an incident
- The system will require the user to fill out a form about said incident. This information will be stored in the database

Report Feed

The screenshot shows a web-based form titled "Create New Report". The form has a yellow header bar with the title. Below the header, there are several input fields and dropdown menus:

- A text input field labeled "Title:" with a placeholder text area below it.
- A dropdown menu labeled "Type of Incident:" with a list of options visible.
- A dropdown menu labeled "Location:" with a list of options visible.
- A text input field labeled "Description:" with a large text area below it.
- A blue "Submit" button located at the bottom center of the form.

After the user logged in, the user will see this button on the homepage. The user has to provide all the information such as Title, Type of Incident (i.e Fire, shooting), Location (i.e. San Jose,

Santa Clara), and the Description.

Report Feed

Create New Report

Title:

Type of Incident:

Location:

Description:

```
1 •  SELECT * FROM cs157a_project.Report;
```

100% 1:1

Result Grid Filter Rows: Search Edit: Export/Import:

reportid	title	description	location	datetime	type
11	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	2020-10-30 18:21:24	Suspicious Activity
12	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	2020-10-30 18:21:24	Fire
13	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 18:21:24	Gun
14	Stealing	A mysterious person stole a purse from a lady n...	Palo Alto	2020-10-30 18:21:24	Robbery
15	Storm Clouds Downtown	Looks like it's about to rain	Palo Alto	2020-10-30 18:21:24	Weather
16	Incident	Description	San Jose	2020-11-08 13:09:52	crime
17	Incident	Description	San Jose	2020-11-08 13:11:25	crime
18	Incident	Description	San Jose	2020-11-08 13:42:52	Crime
19	Suspicious Activity on 4th	I saw someone suspicious getting out of a car.	Santa Clara	2020-11-08 18:26:19	Crime
20	Cloudy Weather Downtown	It looks like it's going to rain.	Campbell	2020-11-08 18:36:10	Natural Calamity
21	Incident		Morgan Hill	2020-11-21 17:45:07	Crime
31	Fire on 9th street	I saw someone set the fire on the 9th street next...	San Jose	2020-12-05 20:36:07	Fire
NULL	NULL	NULL	NULL	NULL	NULL

The new report is added to the Report table (id 31). The new report is added to the Report table (id 31).

```

/*
protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
    String title = request.getParameter("title");
    String type = request.getParameter("IncidentType");
    String date = request.getParameter("date");
    String time = request.getParameter("time");
    String location = request.getParameter("location");
    String description = request.getParameter("description");
    String ai = request.getParameter("ai");

    ServletOutputStream os = response.getOutputStream();

    HttpSession session = request.getSession();
    User user = (User)session.getAttribute("user");

    int status = 0;
    int status1 = 0;

    try {
        String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
        String dbUser = "root";
        String dbPassword = "31464573";

        Class.forName("com.mysql.jdbc.Driver");
        Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);

        String sql = "INSERT INTO Report(title,description,location,datetime,type) VALUES(?, ?, ?, now(), ?)";
        PreparedStatement statement = connection.prepareStatement(sql);
        statement.setString(1, title);
        statement.setString(2, description);
        statement.setString(3, location);
        statement.setString(4, type);
        status = statement.executeUpdate();
        sql = "SELECT reportid FROM Report WHERE title=? AND description=? AND location=? AND type=?";
        statement = connection.prepareStatement(sql);
        statement.setString(1, title);
        statement.setString(2, description);
        statement.setString(3, location);
        statement.setString(4, type);
        ResultSet result = statement.executeQuery();
        int reportid = 0;
        if(result.next())
        {
            reportid = result.getInt("reportid");
        }
        sql = "INSERT INTO Reports(userid,reportid) VALUES(?,?)";
        statement = connection.prepareStatement(sql);
        statement.setInt(1,user.getId());
        statement.setInt(2,reportid);
        status = statement.executeUpdate();
    }
    catch(Exception e){
        String message = "Reporting failed";
        request.setAttribute("message",message);
    }
    response.sendRedirect("home?s=" + status);
}
}

```

First, we use the `INSERT INTO Report(.....)` SQL statement to insert a new report to the Report table. Next, since we used auto-increment for the reportId, we need to have another SQL statement `SELECT reportid FROM Report WHERE.....` to find the reportId we just added. After that, we insert the reportId and the userid to another table called Reports(). This table is used to store which user created which reports.

userid	reportid
1	1
1	2
1	3
1	8
1	11
2	4
4	12
6	5
7	14
8	13
► 9	31
10	6
10	7
12	9
14	15
15	10
22	24
22	25
22	26

You can see the userid is 9 (my userid) and the reportid is 31 (we just added).

2. View Posted Reports

- The user will be able to see a post and view the corresponding report
- The system will provide the report the user wishes to view

3. User Feed

- The user will see a list of recent posts from other users.
- The system will retrieve the recent posts and display them on the user's activity page

We combined these two requirements since they are very similar.

User	Title	Description	Location	Type	Date&Time	
user9	Fire on 9th street	I saw someone set the fire on the 9th street next to McDonald's.	San Jose	Fire	2020-12-05 17:36:07.0	<button>Save</button> <button>Delete</button>
user1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<button>Save</button>
user1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	Suspicious Activity	2020-10-30 15:21:24.0	<button>Save</button>
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	<button>Save</button>
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	<button>Save</button>
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	<button>Save</button>
user7	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	Palo Alto	Robbery	2020-10-30 15:21:24.0	<button>Save</button>
user8	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<button>Save</button>
user10	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Mountain View	Suspicious Activity	2020-10-30 15:21:24.0	<button>Save</button>
user10	Fire spotted near 9th	I saw a fire near 9th St.	Mountain View	Fire	2020-10-30 15:21:24.0	<button>Save</button>
user12	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	Mountain View	Robbery	2020-10-30 15:21:24.0	<button>Save</button>
user14	Storm Clouds Downtown	Looks like it's about to rain	Palo Alto	Weather	2020-10-30 15:21:24.0	<button>Save</button>
user15	Storm Clouds Downtown	Looks like it's about to rain	Mountain View	Weather	2020-10-30 15:21:24.0	<button>Save</button>
user1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:20:30.0	<button>Save</button>
user1	Fire spotted near 9th	I saw a fire near 9th St.	San Jose	Fire	2020-10-30 15:19:44.0	<button>Save</button>

When the user logs in, the user will see a list of recent reports ordered by the time (the most recent one goes first).

```

sql = "SELECT * FROM Report NATURAL JOIN Reports NATURAL JOIN Users ORDER BY datetime DESC LIMIT 15";
if(city != null){
    String filters = "";
    for(int i = 0; i < city.length-1;i++){
        filters += "location='"+ city[i] + "' OR ";
    }
    filters += "location='"+ city[city.length-1] + "'";
    sql = "SELECT * FROM Report NATURAL JOIN Reports NATURAL JOIN Users WHERE " + filters + " ORDER BY datetime DESC LIMIT 15";
}
|
Statement statement = connection.createStatement();
result = statement.executeQuery(sql);

while(result.next()){
    int reportId = result.getInt("reportid");
    <tr>
    <td><%=result.getString("username")%></td>
    <td><%=result.getString("title") %></td>
    <td><%=result.getString("description") %></td>
    <td><%=result.getString("location") %></td>
    <td><%=result.getTimestamp("datetime") %></td>
    <td><%=result.getString("type") %></td>
    <% if(!savedReportsId.contains(reportId)){ %>
    <form method="Post" action="SavePostButtonServlet">
    <input type="hidden" id="reportId" name="reportId" value="<%=reportId %>">
    <td>
    <button type="submit" class="btn btn-secondary" onclick="alert('Post has saved.')">Save</button>
    </td>
    <%} %>
    </tr>
}

```

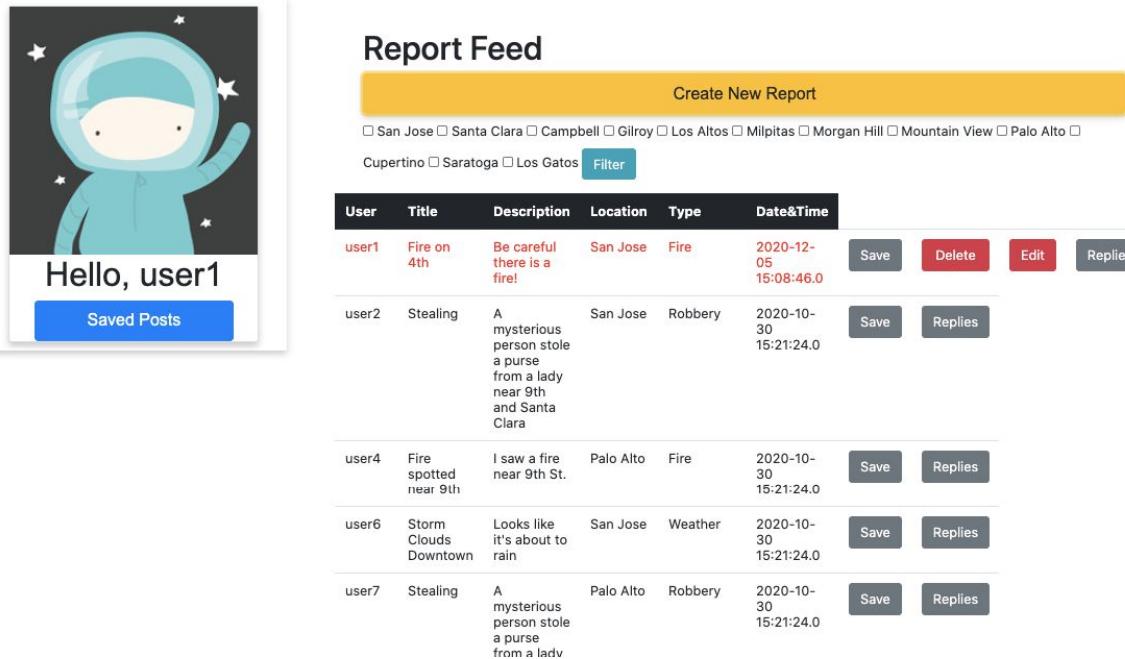
We are using **SELECT * FROM Report NATURAL JOIN Reports NATURAL JOIN Users Order BY datetime DESC LIMIT 15.**

reportid	title	description	location	datetime	type
1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	San Jose	2020-10-30 18:19:39	Suspicious Activity
2	Fire spotted near 9th	I saw a fire near 9th St.	San Jose	2020-10-30 18:19:44	Fire
3	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 18:20:30	Gun
4	Stealing	A mysterious person stole a purse from a lady n...	San Jose	2020-10-30 18:21:24	Robbery
5	Storm Clouds Downtown	Looks like it's about to rain	San Jose	2020-10-30 18:21:24	Weather
6	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Mountain View	2020-10-30 18:21:24	Suspicious Activity
7	Fire spotted near 9th	I saw a fire near 9th St.	Mountain View	2020-10-30 18:21:24	Fire
8	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 18:21:24	Gun
9	Stealing	A mysterious person stole a purse from a lady n...	Mountain View	2020-10-30 18:21:24	Robbery
10	Storm Clouds Downtown	Looks like it's about to rain	Mountain View	2020-10-30 18:21:24	Weather
11	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	2020-10-30 18:21:24	Suspicious Activity
12	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	2020-10-30 18:21:24	Fire
13	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 18:21:24	Gun
14	Stealing	A mysterious person stole a purse from a lady n...	Palo Alto	2020-10-30 18:21:24	Robbery
15	Storm Clouds Downtown	Looks like it's about to rain	Palo Alto	2020-10-30 18:21:24	Weather
16	Incident	Description	San Jose	2020-11-08 13:09:52	crime
17	Incident	Description	San Jose	2020-11-08 13:11:25	crime
18	Incident	Description	San Jose	2020-11-08 13:42:52	Crime
19	Suspicious Activity on 4th	I saw someone suspisious getting out of a car.	Santa Clara	2020-11-08 18:26:19	Crime
20	Cloudy Weather Downtown	It looks like it's going to rain.	Campbell	2020-11-08 18:36:10	Natural Calamity
21	Incident		Morgan Hill	2020-11-21 17:45:07	Crime
31	Fire on 9th street	I saw someone set the fire on the 9th street next...	San Jose	2020-12-05 20:36:07	Fire

This is a screenshot of the Report table.

4. Edit/Delete Post

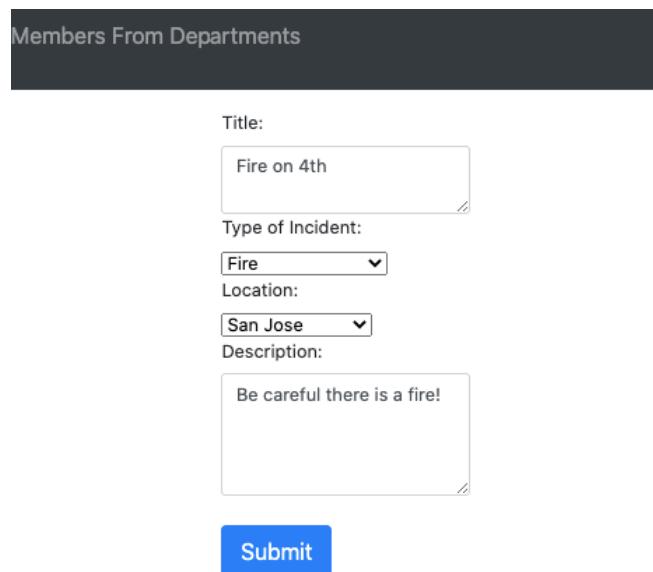
- The user will be able to edit or delete their own posts as they wish
- The system will retrieve the post and update it based on the user's new input
- The system will delete the corresponding post in the database



The screenshot shows the application's main interface. On the left, there is a sidebar with a cartoon character icon and the text "Hello, user1". Below this is a blue button labeled "Saved Posts". The main area is titled "Report Feed" and features a "Create New Report" button. A search bar contains several city names and a "Filter" button. A table lists seven reports, each with columns for User, Title, Description, Location, Type, and Date&Time. Each report row includes "Save", "Delete", "Edit", and "Replies" buttons.

User	Title	Description	Location	Type	Date&Time	Actions
user1	Fire on 4th	Be careful there is a fire!	San Jose	Fire	2020-12-05 15:08:46.0	<button>Save</button> <button>Delete</button> <button>Edit</button> <button>Replies</button>
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	<button>Save</button> <button>Replies</button>
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	<button>Save</button> <button>Replies</button>
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	<button>Save</button> <button>Replies</button>
user7	Stealing	A mysterious person stole a purse from a lady	Palo Alto	Robbery	2020-10-30 15:21:24.0	<button>Save</button> <button>Replies</button>

On the homepage of the application you can see a “delete” and “edit” button next to any posts by the current user. Let’s click the edit button on the first report.



The screenshot shows the "Edit Report" form. It has fields for "Title" (containing "Fire on 4th"), "Type of Incident" (set to "Fire"), "Location" (set to "San Jose"), and "Description" (containing "Be careful there is a fire!"). At the bottom is a blue "Submit" button.

```

String id = request.getParameter("id");
try {
    String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
    String dbUser = "root";
    String dbPassword = "9Cn99N54!";
    Class.forName("com.mysql.jdbc.Driver");
    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
    String sql = "SELECT * FROM Report WHERE reportid = ?";
    PreparedStatement statement = connection.prepareStatement(sql);
    statement.setString(1, id);

    ResultSet result = statement.executeQuery();
    Report report = null;
    if(result.next())
    {
        report = new Report();
        report.setId(result.getInt("reportid"));
        report.setTitle(result.getString("title"));
        report.setDescription(result.getString("description"));
        report.setLocation(result.getString("location"));
        report.setDatetime(result.getTimestamp("datetime"));
        report.setType(result.getString("type"));
    }

    if(report != null) {
        HttpSession session = request.getSession();
        session.setAttribute("editreport", report);
        response.sendRedirect("edit.jsp");
    }
    else
    {
        String message = "An error occurred. Please try again";
        request.setAttribute("message", message);
        RequestDispatcher dispatcher = request.getRequestDispatcher("dangeralert.jsp");
        dispatcher.forward(request, response);
    }
}

```

When the edit button is clicked, the id from the corresponding report is passed to a servlet which queries the database using “**SELECT * FROM Report WHERE reportid = ?**” for that specific report. We are then brought to a page with a form containing the information from the report.

Members From Departments

Title:

Type of Incident:

Location:

Description:

Submit

The user can then change whichever fields they wish and click Submit.

```

String id = request.getParameter("id");
String title = request.getParameter("title");
String type = request.getParameter("IncidentType");
String location = request.getParameter("location");
String description = request.getParameter("description");

String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
String dbUser = "root";
String dbPassword = "9Cn99N54!";

int status = 0;
try {
    Class.forName("com.mysql.jdbc.Driver");
    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
    String sql = "UPDATE Report SET title=?, description=?, location=?, type=? WHERE reportid=?";
    PreparedStatement statement = connection.prepareStatement(sql);
    statement.setString(1, title);
    statement.setString(2, description);
    statement.setString(3, location);
    statement.setString(4, type);
    statement.setString(5, id);
    status = statement.executeUpdate();
} catch(Exception e){
    String message = "Update failed";
    request.setAttribute("message", message);
}
response.sendRedirect("dangeralert.jsp?s=" + status);
}

```

Submitting the form sends the data to a servlet which updates the Report table using “**UPDATE Report SET title=?, description=?, location=?, type=? WHERE reportid=?**” with each of the attributes for that specific reportid.

Report Feed

User	Title	Description	Location	Type	Date&Time	Save	Delete	Edit	Replies
user1	Fire!!!!	Be careful there is a fire!	San Jose	Fire	2020-12-06 13:07:04.0	Save	Delete	Edit	Replies
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	Save	Replies		
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	Save	Replies		
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	Save	Replies		

28	Incident	Toxic Gas	Morgan Hill	2020-11-22 21:31:04	Health Hazard	0
29	Incident	Toxic Gas	Morgan Hill	2020-11-22 21:31:08	Health Hazard	0
30	Incident	Description	Saratoga	2020-11-22 21:34:11	Natural Calamity	0
31	Incident	Description	Saratoga	2020-11-22 21:34:16	Natural Calamity	0
32	Test	Description	Campbell	2020-11-22 21:49:05	Accident	0
34	Test	Description	Santa Clara	2020-11-22 23:42:44	Health Hazard	0
53	Fire!!!!	Be careful there is a fire!	San Jose	2020-12-06 16:07:04	Fire	0

We can then see that “Fire on 4th” has been changed to “Fire!!!!” both on the page and in the database

User	Title	Description	Location	Type	Date&Time				
user1	Fire!!!!!	Be careful there is a fire!	San Jose	Fire	2020-12-06 13:07:04.0	<button>Save</button>	<button>Delete</button>	<button>Edit</button>	<button>Replies</button>
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	<button>Save</button>	<button>Replies</button>		
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	<button>Save</button>	<button>Replies</button>		
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	<button>Save</button>	<button>Replies</button>		

Next let's click the "delete" button on the first report.

```

String id = request.getParameter("id");
String action = request.getParameter("action");
String reason = request.getParameter("reason");
HttpSession session = request.getSession();
User user = (User)session.getAttribute("user");
String userId = Integer.toString(user.getId());
String sql="";

try {
    String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
    String dbUser = "root";
    String dbPassword = "9Cn99N54!";

    Class.forName("com.mysql.jdbc.Driver");
    int status = 0;

    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
    if(action.equals("removed")){
        sql = "DELETE FROM Report WHERE reportid=" + id;
        Statement statement = connection.createStatement();
        status = statement.executeUpdate(sql);
    }
}

```

This will send a request to a servlet with the corresponding reportid. The servlet deletes the tuple with the corresponding reportid. **"DELETE FROM Report WHERE reportid=" + id**

Report Feed

Create New Report

San Jose Santa Clara Campbell Gilroy Los Altos Milpitas Morgan Hill Mountain View Palo Alto

Cupertino Saratoga Los Gatos Filter

User	Title	Description	Location	Type	Date&Time	Save	Replies
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	Save	Replies
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	Save	Replies
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	Save	Replies

28	Incident	Toxic Gas	Morgan Hill	2020-11-22 21:31:04	Health Hazard	0
29	Incident	Toxic Gas	Morgan Hill	2020-11-22 21:31:08	Health Hazard	0
30	Incident	Description	Saratoga	2020-11-22 21:34:11	Natural Calamity	0
31	Incident	Description	Saratoga	2020-11-22 21:34:16	Natural Calamity	0
32	Test	Description	Campbell	2020-11-22 21:49:05	Accident	0
34	Test	Description	Santa Clara	2020-11-22 23:42:44	Health Hazard	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL

We can then see that the first report is no longer on the page nor the database.

5. Reply to posts

- The user will be able to reply to other users' posts.
- The system will link the replies to the corresponding report within the database



Hello, user1

[Saved Posts](#)

Report Feed

Create New Report

San Jose Santa Clara Campbell Gilroy Los Altos Milpitas Morgan Hill Mountain View Palo Alto

Cupertino Saratoga Los Gatos Filter

User	Title	Description	Location	Type	Date&Time	Save	Delete	Edit	Replies
user1	Fire on 4th	There is a fire!!!!	Santa Clara	Fire	2020-12-06 13:18:39.0	Save	Delete	Edit	Replies
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	Save	Replies		
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	Save	Replies		
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	Save	Replies		

Next to each post is a “Replies” button. Let’s click the button on the second report.

```
String id = request.getParameter("id");
try {
    String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
    String dbUser = "root";
    String dbPassword = "9Cn99N54!";
    Class.forName("com.mysql.jdbc.Driver");
    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
    String sql = "SELECT * FROM Report WHERE reportid = ?";
    PreparedStatement statement = connection.prepareStatement(sql);
    statement.setString(1, id);

    ResultSet result = statement.executeQuery();
    Report report = null;
    if(result.next())
    {
        report = new Report();
        report.setId(result.getInt("reportid"));
        report.setTitle(result.getString("title"));
        report.setDescription(result.getString("description"));
        report.setLocation(result.getString("location"));
        report.setDatetime(result.getTimestamp("datetime"));
        report.setType(result.getString("type"));
    }

    if(report != null) {
        HttpSession session = request.getSession();
        session.setAttribute("replyreport", report);
        response.sendRedirect("Reply.jsp");
    }
    else
    {
        String message = "An error occurred. Please try again";
        request.setAttribute("message", message);
        RequestDispatcher dispatcher = request.getRequestDispatcher("dangeralert.jsp");
        dispatcher.forward(request, response);
    }
}
catch(Exception e) {
    e.printStackTrace();
}
```

Replies

Title	Description	Location	Date/Time	Type
Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	2020-10-30 15:21:24.0	Robbery

Reply to Report

User	Reply	Date&Time
------	-------	-----------

[Home Page](#)

The request is sent to a servlet which gets the corresponding report from the database using “**SELECT * FROM Report WHERE reportid = ?**” The user is then redirected to a page showing the report details and any replies associated with the report.

Replies

Title	Description	Location	Date/Time	Type
Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	2020-10-30 15:21:24.0	Robbery

Reply to Report

Reply

I saw this too!

Submit

The user can then click on Reply to Report to open a text field to type their response.

```
User user = (User)request.getSession().getAttribute("user");
Report report = (Report)request.getSession().getAttribute("replyreport");
String text = request.getParameter("reply");
String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
String dbUser = "root";
String dbPassword = "9Cn99N54!";
int status = 0;
try {

    Class.forName("com.mysql.jdbc.Driver");
    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);

    String sql = "INSERT INTO Reply(userid,reportid,text,timestamp) VALUES(?, ?, ?, now())";
    PreparedStatement statement = connection.prepareStatement(sql);
    statement.setInt(1, user.getId());
    statement.setInt(2, report.getId());
    statement.setString(3, text);
    status = statement.executeUpdate();

} catch(Exception e){
    String message = "Reporting failed";
    request.setAttribute("message", message);
}
response.sendRedirect("ReplyDisplayServlet?s=" + status);
```

This sends a request to a servlet which inserts a new tuple into the table with the reply as well as the current user's id and the current report's id. **"INSERT INTO Reply(userid,reportid,text,timestamp) VALUES(?, ?, ?, now())"**

Replies

Successfully Replied

Title	Description	Location	Date/Time	Type
Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	2020-10-30 15:21:24.0	Robbery

Reply to Report

User	Reply	Date&Time
user1	I saw this too!	2020-12-06 13:44:08.0

[Delete](#)

[Home Page](#)

replyid	userid	reportid	text	timestamp
5	1	52	This is a reply	2020-12-06 00:11:50
8	1	4	I saw this too!	2020-12-06 16:44:08
NULL	NULL	NULL	NULL	NULL

We can then see that the page and database table have been updated with the new reply

```
String id = request.getParameter("id");
String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
String dbUser = "root";
String dbPassword = "9Cn99N54!";

int status = 0;
try {
    Class.forName("com.mysql.jdbc.Driver");
    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);

    String sql = "DELETE FROM Reply WHERE replyid=?";
    PreparedStatement statement = connection.prepareStatement(sql);
    statement.setString(1,id);
    status = statement.executeUpdate();

} catch(Exception e){
    String message = "Setting alert failed";
    request.setAttribute("message",message);
}
response.sendRedirect("ReplyDisplayServlet?s=" + status);
```

Clicking the delete button sends a request to a servlet which deletes the reply with the corresponding id. **sql=“DELETE FROM Reply WHERE replyid=?”**

Replies

Successfully Replied

Title	Description	Location	Date/Time	Type
Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	2020-10-30 15:21:24.0	Robbery
User	Reply	Date&Time		
Reply to Report				
replyid	userid	reportid	text	timestamp
5	1	52	This is a reply	2020-12-06 00:11:50
HULL	NULL	NULL	NULL	NULL

We can then see that the page and database table no longer contain the reply.

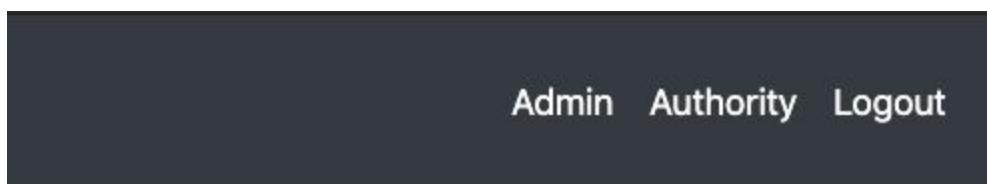
6.Notifications

- Authorities can request that they are notified of new incidents in an area
- The system will check for new incidents and return those fitting indicated criteria

Note:

This requirement we changed to only authority (Not regular users) can use the setting

To get to this feature, you need to use an authority account and click the Admin from the top right corner.



14	Storm Clouds Downtown	Looks like it's about to rain	Palo Alto	2020-10-30 15:21:24.0	Weather	<button>Get Info</button>
15	Storm Clouds Downtown	Looks like it's about to rain	Mountain View	2020-10-30 15:21:24.0	Weather	<button>Get Info</button>
1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 15:20:30.0	Gun	<button>Get Info</button>
1	Fire spotted near 9th	I saw a fire near 9th St.	San Jose	2020-10-30 15:19:44.0	Fire	<button>Get Info</button>
1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	San Jose	2020-10-30 15:19:39.0	Suspicious Activity	<button>Get Info</button>

[Home Page](#)

[Set Alert](#)

Next, you will scroll the way down to press the “Set Alert” button.

Currently Set Alerts

Alert updated successfully

Type of Incident:

Location:

Submit

You currently have no alerts set

If the current user hasn't set any alerts. It will say "You currently have no alerts set"

```
</div>
<div class="" style="margin-top:1%;margin-left:40%;margin-bottom:1%; width:80%">
<%
try {
String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
String dbUser = "root";
String dbPassword = "31464573";

Class.forName("com.mysql.jdbc.Driver");
Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);

User user = (User)request.getSession().getAttribute("user");
String sql = "SELECT * FROM Alert WHERE userid =?";
PreparedStatement statement = connection.prepareStatement(sql);
statement.setInt(1, user.getId());
ResultSet result = statement.executeQuery();
if(!result.isBeforeFirst()){%>
<h2>You currently have no alerts set</h2>
<%}
while (result.next()) {%
<div class="" style="margin-top:1%;margin-left:-30%;margin-bottom:1%; width:100%">
<table class="table">
<thead class="thead-dark">


```

By using **SELECT * FROM Alert WHERE userid =?**. We can check if there are any alerts set by the current user.

Currently Set Alerts

Type of Incident:

Fire

Location:

San Jose

Type	Location	
Fire	San Jose	<input type="button" value="Delete"/>

User	Title	Description	Location	Date/Time	Type	
9	Fire on 9th street	I saw someone set the fire on the 9th street next to McDonald's.	San Jose	2020-12-05 17:36:07.0	Fire	<input type="button" value="Get Info"/>

User	Title	Description	Location	Date/Time	Type	
1	Fire spotted near 9th	I saw a fire near 9th St.	San Jose	2020-10-30 15:19:44.0	Fire	<input type="button" value="Get Info"/>

After we choose the Type of Incident as Fire, Location as San Jose. The system will query all the reports that match the requirements. As you can see, "Fire on 9th Street" is listed since we just added from above.

```

<td style="width:10%"><form action="deletealert" method="POST"><input type="hidden" name="id" value=<%=result.getInt("a
</tr>
</table>
<%
String type = result.getString("type");
String city = result.getString("city");
sql = "SELECT * FROM Report NATURAL JOIN Reports WHERE type=? AND location=? ORDER BY datetime DESC";
PreparedStatement statement2 = connection.prepareStatement(sql);
statement2.setString(1,type);
statement2.setString(2,city);
ResultSet result2 = statement2.executeQuery();
if(!result2.isBeforeFirst()){%>
    <h1>No reports found with these parameters</h1>
<%}
while(result2.next()){
%>
<br>
</div>
<div class="" style="margin-top:1%;margin-left:-30%;margin-bottom:1%; width:80%">
<table class="table">
```

By using **sql = "SELECT * FROM Report NATURAL JOIN Reports WHERE type=? AND location=? ORDER BY datetime DESC";**

This will fetch anything (*) from the tables that match the requirements (type & location).

7. Create User Account

- User accounts are only required for doing more than just viewing. Different account types include general users, authorities, and admins.
- The system provides a form to create an account. They have an option to register if they don't already have an account.

The image shows a user registration form. At the top, there are three input fields: 'user name', 'password', and '510-555-5555'. Below these is a 'City' dropdown menu with 'San Jose' selected. At the bottom is a large green 'CREATE' button. Below the button, a link says 'Already Registered' followed by a blue 'Login' button.

Here we can see the login form, the user can type in their information here. After selecting a username and password, they are prompted to enter their phone number as well. We included the phone number feature so it becomes easier for the admin to access our information and when required, they can use it to get in touch with the user.

Additionally, we have the ability to select a city, so it becomes easier for the users to pinpoint the location of the crime and act accordingly.

If the user already has an account, they can simply click on the login button and continue logging in.

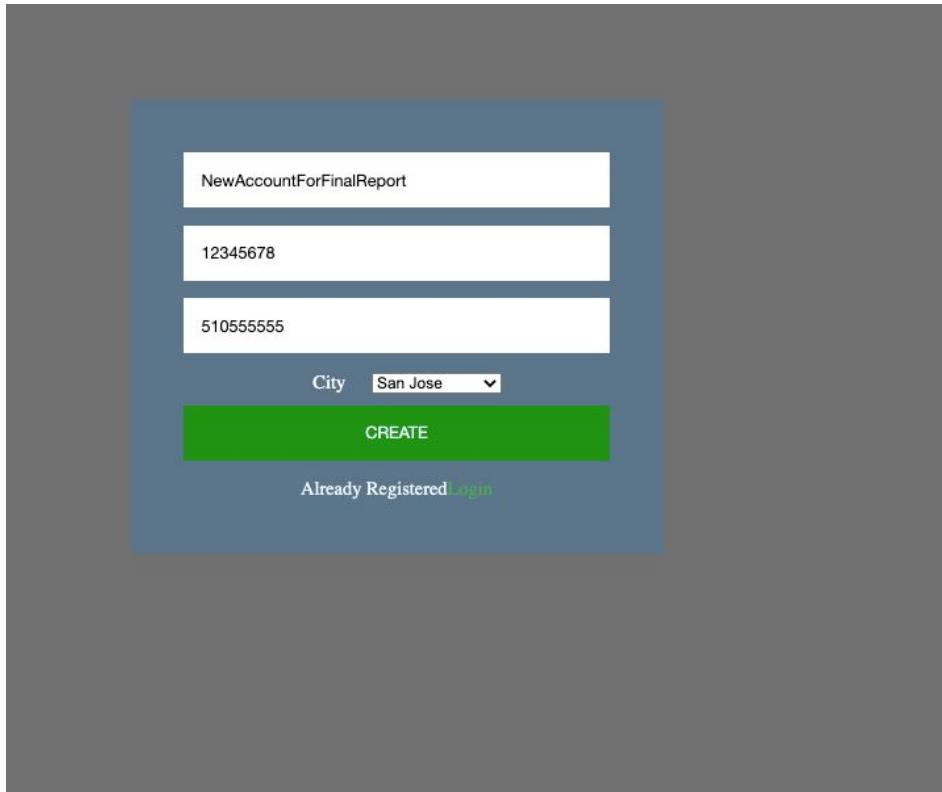
```
1  <body>
2
3      <div class="login-page" >
4          <div class="form" style="width: 200%; height:200%;>
5              <form class="register-form" action="register" method="post">
6
7                  <input type="text" placeholder="user name" name="user" required/>
8                  <input type="text" placeholder="password" name="password" required/>
9                  <input type="text" placeholder="510-555-5555" name="phoneNumber"/>
10                 <label>City</label>
11                 <select name="city" required>
12                     <option value="San Jose">San Jose</option>
13                     <option value="Santa Clara">Santa Clara</option>
14                     <option value="Campbell">Campbell</option>
15                     <option value="Gilroy">Gilroy</option>
16                     <option value="Los Altos">Los Altos</option>
17                     <option value="Milpitas">Milpitas</option>
18                     <option value="Morgan Hill">Morgan Hill</option>
19                     <option value="Mountain View">Mountain View</option>
20                     <option value="Palo Alto">Palo Alto</option>
21                     <option value="Cupertino">Cupertino</option>
22                     <option value="Saratoga">Saratoga</option>
23                     <option value="Los Gatos">Los Gatos</option>
24                 </select>
25                 <button type="submit">Create</button>
26
27                 <p class="message">
28                     Already Registered<a href="#">Login</a>
29                 </p>
30
31             </form>
32             <form class="login-form" action="login" method="post">
33                 <input type="text" placeholder="user name" name="user" required/>
34                 <input type="text" placeholder="password" name="password" required/>
35                 <br>
36                 <span class="warning">${message}</span>
37                 <button type="submit">login</button>
38             <p class="message">
39                 Not Registered?<a href="#">Register</a>
40             </p>
41
42         </form>
43     </div>
44 </div>
```

In the code, we have narrowed down the list of locations to include only the surrounding cities in Santa Clara county.

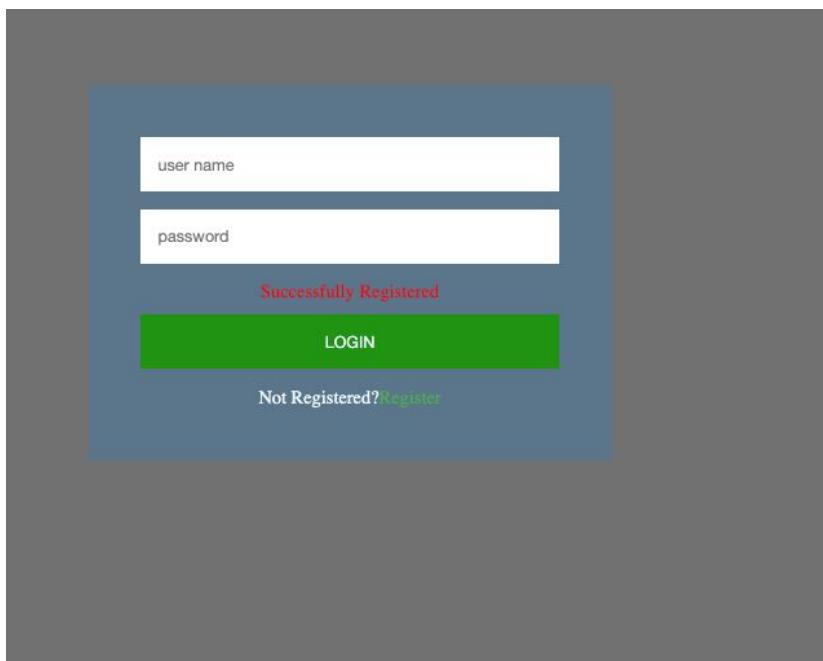
```

2     */
3     public UserRegisterServlet() {
4         super();
5     }
6
7     /**
8      * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse response)
9      */
10    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException {
11        String username = request.getParameter("user");
12        String password = request.getParameter("password");
13        String phoneNumber = request.getParameter("phoneNumber");
14        String city = request.getParameter("city");
15
16        int status;
17        try {
18            String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
19            String dbUser = "root";
20            String dbPassword = "31464573";
21
22            Class.forName("com.mysql.jdbc.Driver");
23            Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
24            String sql = "INSERT INTO Users(username,password,phoneNumber,city) VALUES(?, ?, ?, ?)";
25            PreparedStatement statement = connection.prepareStatement(sql);
26            statement.setString(1, username);
27            statement.setString(2, password);
28            statement.setString(3, phoneNumber);
29            statement.setString(4, city);
30            status = statement.executeUpdate();
31            String message = "Successfully Registered";
32            request.setAttribute("message", message);
33            RequestDispatcher dispatcher = request.getRequestDispatcher("index_form.jsp");
34            dispatcher.forward(request, response);
35
36        } catch(Exception e){
37            String message = "Registration failed";
38            request.setAttribute("message", message);
39            RequestDispatcher dispatcher = request.getRequestDispatcher("index_form.jsp");
40            dispatcher.forward(request, response);
41        }
42    }
43 }
44 }
```

We will get the inputs from the user through `request.getParameter` and store the responses into the user table using insert query. In case of failure to register, an exception will be thrown with the error message 'Registration failed'.



Here we register for a new account and have added in the required details such as the user name, password, phone number and city.



After the creation of the new account, it displays “Successfully Registered”. After that we can continue logging in.

	userid	username	password	phonenumer	city
	3	user3	password3	4085553333	Campbell
	4	user4	password4	4085554444	Gilroy
	5	user5	password5	5105555555	Los Altos
	6	user6	password6	5105556666	Milpitas
	7	user7	password7	5105557777	Morgan Hill
	8	user8	password8	5105558888	Monte Sereno
	9	user9	password9	6505559999	Mountain View
	10	user10	password10	6505551010	Palo Alto
	11	user11	password11	6505551100	Cupertino
	12	user12	password12	6505551212	Los Altos Hills
	13	user13	password13	6695551313	Saratoga
	14	user14	password14	6695551414	Sunnyvale
	15	user15	password15	6695551515	Los Gatos
	19	user20	password	NULL	NULL
	20	ryan	password	NULL	NULL
	21	newuser	newpassw...	NULL	NULL
	22	pak	pak	5105556666	San Jose
	30	pak2	pak2	5105555555	San Jose
	31	NewAccountForFinalReport	12345678	5105555555	San Jose
	NULL	NULL	NULL	NULL	NULL

This is the database we have with the table name user. This is where we store all the user information. Here userid is a primary key.

8. Flag/remove false reports

- Admins can flag or remove reports deemed incorrect or not relevant
- The system will remove designated reports from the database and add/remove flags as requested

Admin Authority Logout

First, by clicking the Admin button on the top right corner. (with an admin account).

Admin Page

Title	Description	Location	Date/Time	Type	Action
Fire on 9th street	I saw someone set the fire on the 9th street next to McDonald's.	San Jose	2020-12-05 17:36:07.0	Fire	<button>Update</button>
Incident		Morgan Hill	2020-11-21 14:45:07.0	Crime	<button>Update</button>
Cloudy Weather Downtown	It looks like it's going to rain.	Campbell	2020-11-08 15:36:10.0	Natural Calamity	<button>Update</button>
Suspicious Activity on 4th	I saw someone suspicious getting out of a car.	Santa Clara	2020-11-08 15:26:19.0	Crime	<button>Update</button>

Next, click the “Update” button on any report you want to remove.

Title	Description	Location	Date/Time	Type
Fire on 9th street	I saw someone set the fire on the 9th street next to McDonald's.	San Jose	2020-12-05 17:36:07.0	Fire

Reason:

Misinformation ▾

Action to take:

Remove ▾

Update

[Admin Page](#)

After that, choose a reason (Misinformation), and Action to take (Remove).

Admin Page

Title	Description	Location	Date/Time	Type	Action
Incident		Morgan Hill	2020-11-21 14:45:07.0	Crime	<button>Update</button>
Cloudy Weather Downtown	It looks like it's going to rain.	Campbell	2020-11-08 15:36:10.0	Natural Calamity	<button>Update</button>
Suspicious Activity on 4th	I saw someone suspicious getting out of a car.	Santa Clara	2020-11-08 15:26:19.0	Crime	<button>Update</button>
Incident	Description	San Jose	2020-11-08 10:42:52.0	Crime	<button>Update</button>
Incident	Description	San Jose	2020-11-08 10:11:25.0	crime	<button>Update</button>
Incident	Description	San Jose	2020-11-08 10:09:52.0	crime	<button>Update</button>

The report is deleted from the Report table, so you cannot see it on this page anymore.

```

try {
    String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
    String dbUser = "root";
    String dbPassword = "31464573";

    Class.forName("com.mysql.jdbc.Driver");
    int status = 0;

    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
    if(action.equals("removed")){
        sql = "DELETE FROM Report WHERE reportid=" + id;
        Statement statement = connection.createStatement();
        status = statement.executeUpdate(sql);
    }
    else if(action.equals("flagged")){
        sql = "UPDATE Report SET flag=1 WHERE reportid=" + id;
        Statement statement = connection.createStatement();
        status = statement.executeUpdate(sql);
    }

    if(reason.equals("backToHome")) {
        response.sendRedirect("dangeralert.jsp");
    }else {
        sql = "SELECT * FROM Admin WHERE userid=" + userId;
        Statement statement = connection.createStatement();
        ResultSet result = statement.executeQuery(sql);
        int staffid;
        if(result.next()) {
            staffid = result.getInt("staffid");
            sql = "INSERT INTO Action(staffid,reportid,reason,action) VALUES(?, ?, ?, ?)";
            PreparedStatement prepared = connection.prepareStatement(sql);
            prepared.setInt(1,staffid);
            prepared.setString(2,id);
            prepared.setString(3,reason);
            prepared.setString(4,action);
            status = prepared.executeUpdate();
        }
        response.sendRedirect("DeleteDisplayServlet?s=" + status);
    }
}

```

First, we will delete the report by

sql = "DELETE FROM Report WHERE reportid=" + id;

reportid	title	description	location	datetime	type
7	Fire spotted near 9th	I saw a fire near 9th St.	Mountain View	2020-10-30 18:21:24	Fire
8	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 18:21:24	Gun
9	Stealing	A mysterious person stole a purse from a lady ...	Mountain View	2020-10-30 18:21:24	Robbery
10	Storm Clouds Downtown	Looks like it's about to rain	Mountain View	2020-10-30 18:21:24	Weather
11	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	2020-10-30 18:21:24	Suspicious Activity
12	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	2020-10-30 18:21:24	Fire
13	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 18:21:24	Gun
14	Stealing	A mysterious person stole a purse from a lady ...	Palo Alto	2020-10-30 18:21:24	Robbery
15	Storm Clouds Downtown	Looks like it's about to rain	Palo Alto	2020-10-30 18:21:24	Weather
16	Incident	Description	San Jose	2020-11-08 13:09:52	crime
17	Incident	Description	San Jose	2020-11-08 13:11:25	crime
18	Incident	Description	San Jose	2020-11-08 13:42:52	Crime
19	Suspicious Activity on 4th	I saw someone suspicious getting out of a car.	Santa Clara	2020-11-08 18:26:19	Crime
20	Cloudy Weather Downtown	It looks like it's going to rain.	Campbell	2020-11-08 18:36:10	Natural Calamity
21	Incident		Morgan Hill	2020-11-21 17:45:07	Crime
	NULL	NULL	NULL	NULL	NULL

The report is no longer on the table. (reportid 31)

Secondly, if we chose flag, we would use **sql = "UPDATE Report SET flag=1 WHERE reportid=" + id**

reportid	title	description	location	datetime	type	flag
26	Suspicious Activity on 4th	Car on fire.	Santa Clara	2020-11-22 21:14:32	Accident	0
27	Suspicious Activity on 4th	Car on fire.	Santa Clara	2020-11-22 21:23:47	Accident	0
28	Incident	Toxic Gas	Morgan Hill	2020-11-22 21:31:04	Health Hazard	0
29	Incident	Toxic Gas	Morgan Hill	2020-11-22 21:31:08	Health Hazard	0
30	Incident	Description	Saratoga	2020-11-22 21:34:11	Natural Calamity	0
31	Incident	Description	Saratoga	2020-11-22 21:34:16	Natural Calamity	0
54	Fire on 4th	There is a fire!!!!	Santa Clara	2020-12-06 16:18:39	Fire	1
56	Test	This is a takeover	Mountain View	2020-12-08 17:53:10	Natural Calamity	1
58	Test Flag	Testing	Santa Clara	2020-12-08 20:00:21	Crime	1
NULL	NULL	NULL	NULL	NULL	NULL	NULL

We can then see this reflected in the homepage as red lettering on the post.

Report Feed

[Create New Report](#)

Title:

Type of Incident:
Location:

Description:

San Jose Santa Clara Campbell Gilroy Los Altos Milpitas Morgan Hill Mountain View Palo Alto Cupertino Saratoga Los Gatos Filter

User	Title	Description	Location	Type	Date&Time				
user1	Test Flag	Testing	Santa Clara	Crime	2020-12-08 17:00:21.0	Save	Delete	Edit	Replies
user1	Test	This is a takeover	Mountain View	Natural Calamity	2020-12-08 14:53:10.0	Save	Delete	Edit	Replies
user1	Fire on 4th	There is a fire!!!!	Santa Clara	Fire	2020-12-06 13:18:39.0	Save	Delete	Edit	Replies

```
sql = "SELECT * FROM Admin WHERE userid=" + userId;
Statement statement = connection.createStatement();
ResultSet result = statement.executeQuery(sql);
int staffid;
if(result.next()) {
    staffid = result.getInt("staffid");
    sql = "INSERT INTO Action(staffid,reportid,reason,action) VALUES(?, ?, ?, ?)";
    PreparedStatement prepared = connection.prepareStatement(sql);
    prepared.setInt(1,staffid);
    prepared.setString(2,id);
    prepared.setString(3,reason);
    prepared.setString(4,action);
    status = prepared.executeUpdate();
}
response.sendRedirect("DeleteDisplayServlet?s=" + status);
```

Next, `sql = "INSERT INTO Action(staffid,reportid,reason,action) VALUES(?, ?, ?, ?)"`;
This will insert a record into the Action table to store which admin deleted which post with the reason & action.

From this Action table, you can see staffid 9 (the admin) deleted the misinformation report.

9. Search for Reports

- Users are able to search through the database for posts with given parameters.
- The system will return to the user any reports matching their request parameters and let them know if none are found.

We implemented it as a sorting feature.

San Jose Santa Clara Campbell Gilroy Los Altos Milpitas Morgan Hill Mountain View Palo Alto Cupertino Saratoga
Los Gatos Filter

User	Title	Description	Location	Type	Date&Time	
user1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<button>Save</button>
user1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	Suspicious Activity	2020-10-30 15:21:24.0	<button>Save</button>
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	<button>Save</button>
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	<button>Save</button>
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	<button>Save</button>
user7	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	Palo Alto	Robbery	2020-10-30 15:21:24.0	<button>Save</button>
user8	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<button>Save</button>
user10	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Mountain View	Suspicious Activity	2020-10-30 15:21:24.0	<button>Save</button>
user10	Fire spotted near 9th	I saw a fire near 9th St.	Mountain View	Fire	2020-10-30 15:21:24.0	<button>Save</button>
user12	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	Mountain View	Robbery	2020-10-30 15:21:24.0	<button>Save</button>
user14	Storm Clouds Downtown	Looks like it's about to rain	Palo Alto	Weather	2020-10-30 15:21:24.0	<button>Save</button>
user15	Storm Clouds Downtown	Looks like it's about to rain	Mountain View	Weather	2020-10-30 15:21:24.0	<button>Save</button>

On the main page, there are lots of reports. We can apply “Filter” to search the database for a specific location.

San Jose Santa Clara Campbell Gilroy Los Altos Milpitas Morgan Hill Mountain View Palo Alto Cupertino Saratoga
 Los Gatos

User	Title	Description	Location	Type	Date&Time	
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user1	Fire spotted near 9th	I saw a fire near 9th St.	San Jose	Fire	2020-10-30 15:19:44.0	<input type="button" value="Save"/>
user1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	San Jose	Suspicious Activity	2020-10-30 15:19:39.0	<input type="button" value="Save"/>

After filter by San Jose, only 4 reports match this requirement.

```
if(city != null){
    String filters = "";
    for(int i = 0; i < city.length-1;i++){
        filters += "location=" + city[i] + " OR ";
    }
    filters += "location=" + city[city.length-1] + "";
    sql = "SELECT * FROM Report NATURAL JOIN Reports NATURAL JOIN Users WHERE " + filters + " ORDER BY datetime DESC LIMIT 15";
}
//ArrayList<Integer> savedReportsId = (ArrayList<Integer>)session.getAttribute("savedReportsId");
//ArrayList<Integer> myOwnReportsId = (ArrayList<Integer>)session.getAttribute("myOwnReportsId");
```

sql = "SELECT * FROM Report NATURAL JOIN Reports NATURAL JOIN Users WHERE " + filters + " ORDER BY datetime DESC LIMIT 15";

By using the SQL statement, the system only selects the tuple that matches that WHERE clause.

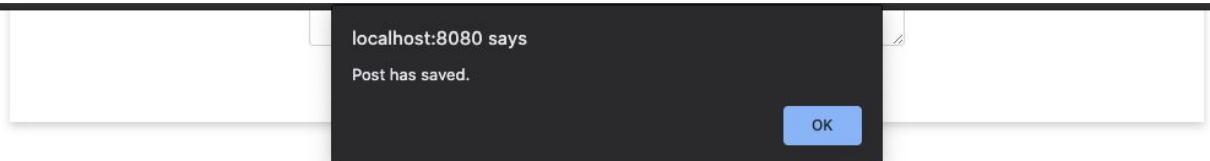
10. Save Posts

- User will be able to save any posts to view later
- The system will flag the posts saved by the user and display them in the “Saved Posts” Tab

San Jose Santa Clara Campbell Gilroy Los Altos Milpitas Morgan Hill Mountain View Palo Alto Cupertino Saratoga
Los Gatos

User	Title	Description	Location	Type	Date&Time	
user1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	Suspicious Activity	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	Fire	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	Weather	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user7	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	Palo Alto	Robbery	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user8	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user10	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Mountain View	Suspicious Activity	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user10	Fire spotted near 9th	I saw a fire near 9th St.	Mountain View	Fire	2020-10-30 15:21:24.0	<input type="button" value="Save"/>

On the homepage, the user is allowed to click the “Save” button to save a report for later. Let’s save the first report (user1, Man spotted Holding a gun).

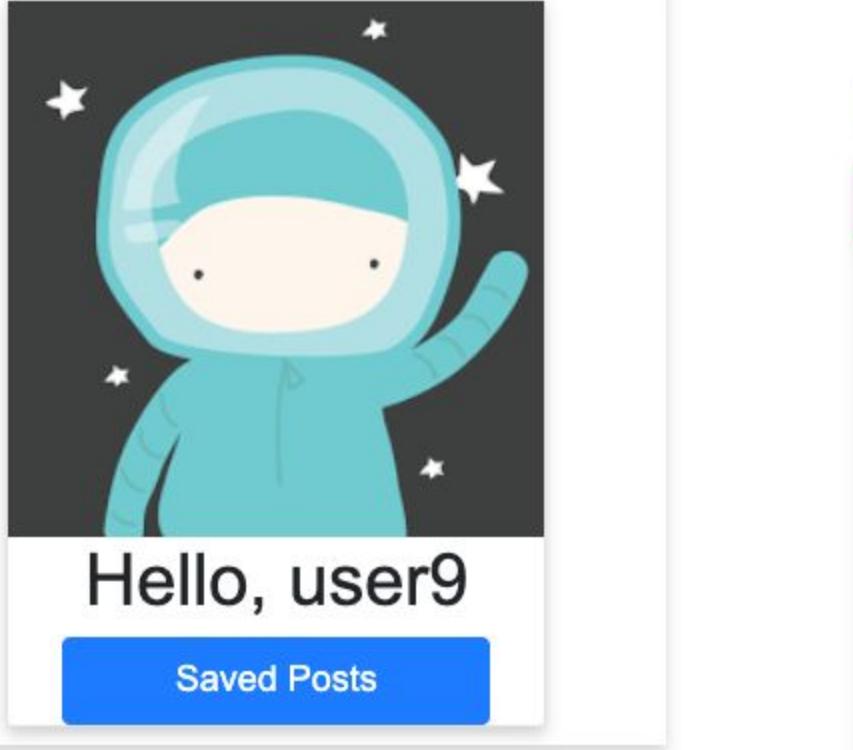


San Jose Santa Clara Campbell Gilroy Los Altos Milpitas Morgan Hill Mountain View Palo Alto Cupertino Saratoga
Los Gatos

User	Title	Description	Location	Type	Date&Time	
user1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	Suspicious Activity	2020-10-30 15:21:24.0	<input type="button" value="Save"/>
user2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	Robbery	2020-10-30 15:21:24.0	<input type="button" value="Save"/>

User	Title	Description	Location	Type	Date&Time
user1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0
user1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	Suspicious Activity	2020-10-30 15:21:24.0
user2	Stealing	A mysterious person stole a purse from a lady	San Jose	2020-10-30	Robbery

After the user saves the report, the “Save” button will not appear anymore. (Since you cannot save the same report twice).



To view the saved report, click the “Saved Posts” button on the home page.

Saved Posts	Title	Description	Location	Type	Date&Time	
	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	Gun	2020-10-30 15:21:24.0	<button>Remove</button>

The report successfully saved in saved posts.

```

try {
    String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
    String dbUser = "root";
    String dbPassword = "31464573";

    Class.forName("com.mysql.jdbc.Driver");
    Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
    String sql = "INSERT INTO Save (userid,reportid) VALUES ("+userId+","+reportId+");";
    Statement statement = connection.createStatement();

    int status = statement.executeUpdate(sql);

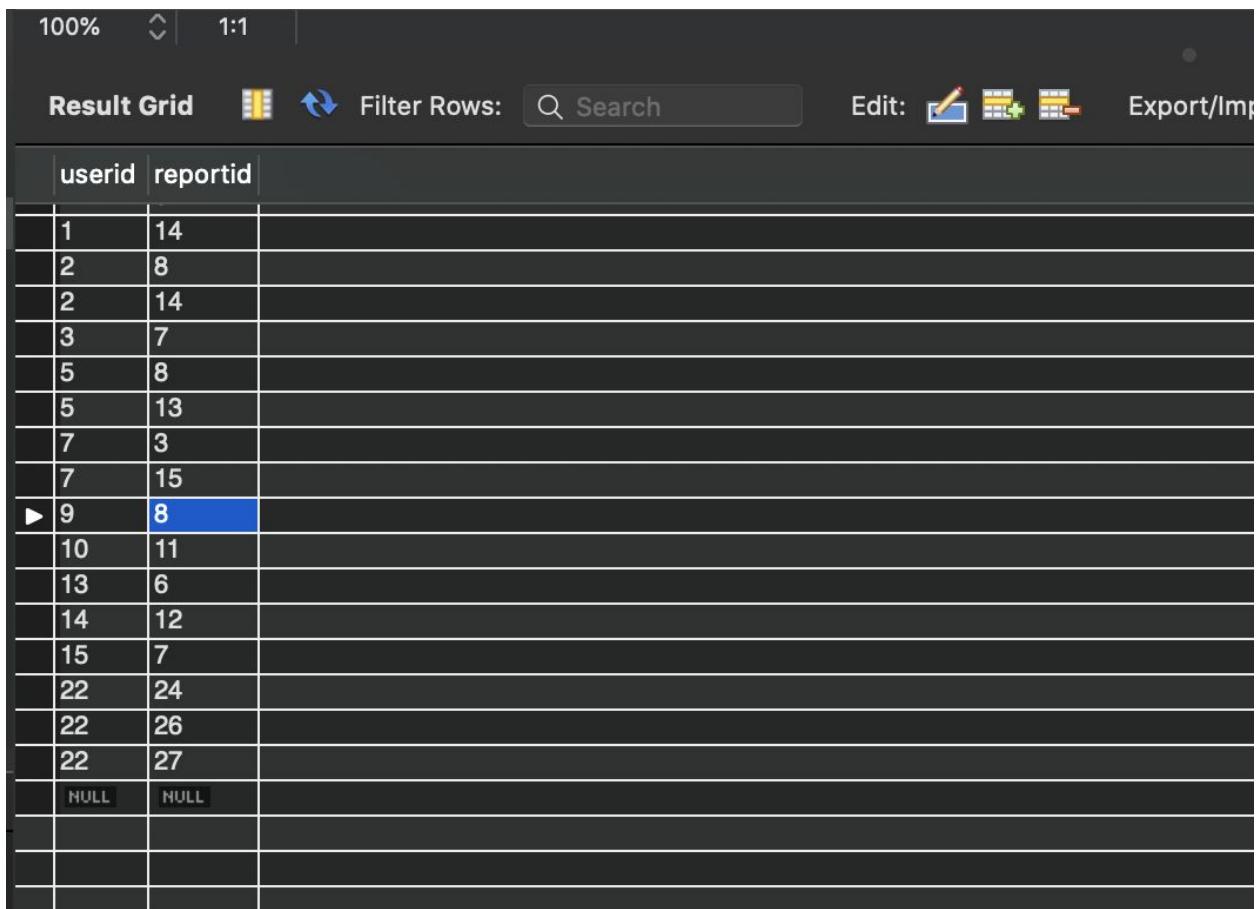
    connection.close();
}

```

By using `String sql = "INSERT INTO Save (userid,reportid) VALUES`

`("+userId+","+reportId+");";`

This SQL statement will insert the reportid, and which user saved it to the Save table.



userid	reportid
1	14
2	8
2	14
3	7
5	8
5	13
7	3
7	15
▶ 9	8
10	11
13	6
14	12
15	7
22	24
22	26
22	27
NULL	NULL

From the Save table, we can use that userid 9 store the report (report id);

11. Get User Information

- Authorities are able to retrieve the contact information of the user in order to follow up investigation
- The system will ensure that authorities are able to see this information when displaying reports/posts

Authority Page

User	Title	Description	Location	Date/Time	Type	Get Info
1	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 15:21:24.0	Gun	<button>Get Info</button>
1	Suspicious Activity on 4th	A mysterious person was lurking near 4th St.	Palo Alto	2020-10-30 15:21:24.0	Suspicious Activity	<button>Get Info</button>
2	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	San Jose	2020-10-30 15:21:24.0	Robbery	<button>Get Info</button>
4	Fire spotted near 9th	I saw a fire near 9th St.	Palo Alto	2020-10-30 15:21:24.0	Fire	<button>Get Info</button>
6	Storm Clouds Downtown	Looks like it's about to rain	San Jose	2020-10-30 15:21:24.0	Weather	<button>Get Info</button>
7	Stealing	A mysterious person stole a purse from a lady near 9th and Santa Clara	Palo Alto	2020-10-30 15:21:24.0	Robbery	<button>Get Info</button>
8	Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 15:21:24.0	Gun	<button>Get Info</button>

Title	Description	Location	Date/Time	Type	Username	Phone Number	City
Man spotted holding a gun	White male seen walking with gun downtown	Santa Clara	2020-10-30 15:21:24.0	Gun	user1	4085551111	San Jose

[Authority Page](#)

Here we can see that the authorities have the ability to pull information of the user, and they can investigate the situation accordingly.

When we click on the get info button, it provides the information related to the crime. It elaborates the situation by giving a description of the crime, the location it was committed in, the exact date and time and, the type of activity according to which the appropriate authority can respond to. This information is useful for the user to gain knowledge about the different crime that happens in their surroundings.

```

<div>${message}</div>
<div class="d-flex justify-content-center" style="margin-top:1%;margin-left:5%;margin-bottom:1%; width:80%">
<H1>Authority Page</H1>
<table class="table">
<thead class="thead-dark">
<tr>
    <th>User</th>
    <th>Title</th>
    <th>Description</th>
    <th>Location</th>
    <th>Date/Time</th>
    <th>Type</th>
</tr>
</thead>
<%>
    try {
        String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
        String dbUser = "root";
        String dbPassword = "31464573";

        Class.forName("com.mysql.jdbc.Driver");
        Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);

        String sql = "SELECT * FROM Report NATURAL JOIN Reports ORDER BY datetime DESC";
        Statement statement = connection.createStatement();
        ResultSet result = statement.executeQuery(sql);

        while (result.next()) {
            %>
<tr>
    <td><%=result.getInt("userid") %></td>
    <td><%=result.getString("title") %></td>
    <td><%=result.getString("description") %></td>
    <td><%=result.getString("location") %></td>
    <td><%=result.getTimestamp("datetime") %></td>
    <td><%=result.getString("type") %></td>
    <td><form action="userinfo" method="POST"><input type="hidden" name="id" value=<%=result.getInt("reportid")%></bu
</tr>
<%>
        }
    }
    connection.close();
} catch (Exception e) {
    e.printStackTrace();
}
%>
</table>
</div>

```

For this, we used a select query along with a natural join on the report table to retrieve information of date, time, location, etc.

```

1 package dangeralert;
2
3 import java.io.IOException;
4
5
6
7 /**
8  * Servlet implementation class UserInfoServlet
9  */
10
11 @WebServlet("/userinfo")
12 public class UserInfoServlet extends HttpServlet {
13     private static final long serialVersionUID = 1L;
14
15     /**
16      * @see HttpServlet#HttpServlet()
17      */
18     public UserInfoServlet() {
19         super();
20         // TODO Auto-generated constructor stub
21     }
22
23     /**
24      * @see HttpServlet#doPost(HttpServletRequest request, HttpServletResponse
25      * response)
26      */
27     protected void doPost(HttpServletRequest request, HttpServletResponse response)
28         throws ServletException, IOException {
29         String id = request.getParameter("id");
30         try {
31             String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
32             String dbUser = "root";
33             String dbPassword = "31464573";
34
35             Class.forName("com.mysql.jdbc.Driver");
36             Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
37             String sql = "SELECT * FROM Report WHERE reportid = ?";
38             PreparedStatement statement = connection.prepareStatement(sql);
39             statement.setString(1, id);
40
41             ResultSet result = statement.executeQuery();
42             Report report = null;
43             if (result.next()) {
44                 report = new Report();
45                 report.setId(result.getInt("reportid"));
46                 report.setTitle(result.getString("title"));
47                 report.setDescription(result.getString("description"));
48                 report.setLocation(result.getString("location"));
49                 report.setDatetime(result.getTimestamp("datetime"));
50                 report.setType(result.getString("type"));
51             }
52
53             sql = "SELECT * FROM Reports NATURAL JOIN Users WHERE reportid = ?";
54             statement = connection.prepareStatement(sql);
55             statement.setString(1, id);
56             result = statement.executeQuery();
57             User user = null;

```

The authorities can even retrieve reports based on report id. So we used a select statement on the report table to retrieve the information.

12. Announcement Page

- Authorities can make a public announcement on the Announcement page.



Hello,

Announcement

Create New Announcement

Title:

Description:

Submit

User	Title	Description	Date&Time
------	-------	-------------	-----------

user9	Shooting at San Jose	People reported a shooting at SJSU Library	2020-12-01 12:19:09.0
-------	----------------------	--	-----------------------

Home Page

By clicking the Announcement from the navigation bar on the top of the home page.
Authority accounts can create a new Announcement.

Announcement

Create New Announcement

Title:

Hi Professor Wu

Description:

Hello from Pak =]**Submit**

User	Title	Description	Date&Time
------	-------	-------------	-----------

user9	Shooting at San Jose	People reported a shooting at SJSU Library	2020-12-01 12:19:09.0
-------	----------------------	--	-----------------------

Home Page

Announcement

Successfully Posted Announcement

Create New Announcement

User	Title	Description	Date&Time	
user9	Shooting at San Jose	People reported a shooting at SJSU Library	2020-12-01 12:19:09.0	<button>Delete</button>
user9	Shooting 2	People reported shooting at SJSU Library	2020-12-01 12:21:49.0	<button>Delete</button>
user9	Shooting 3	OMG!!!!	2020-12-01 12:23:15.0	<button>Delete</button>
user9	Hi Professor Wu	Hello from Pak =]	2020-12-05 18:59:15.0	<button>Delete</button>

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```
Class.forName("com.mysql.jdbc.Driver");
Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);

String sql = "INSERT INTO Announcement(userid,title,description,datetime) VALUES(?, ?, ?, now())";
PreparedStatement statement = connection.prepareStatement(sql);
statement.setInt(1, user.getId());
statement.setString(2, title);
statement.setString(3, description);
status = statement.executeUpdate();
```

By using **String sql = "INSERT INTO Announcement(userid,title,description,datetime)
VALUES(?, ?, ?, now())";**

announcement...	userid	title	description	datetime	
2	9	Shooting at San Jose	People reported a shooting at SJSU Library	2020-12-01 15:19:09	
3	9	Shooting 2	People reported shooting at SJSU Library	2020-12-01 15:21:49	
4	9	Shooting 3	OMG!!!!	2020-12-01 15:23:15	
5	9	Hi Professor Wu	Hello from Pak =]	2020-12-05 21:59:15	
HULL	NULL	HULL	HULL	NULL	

The announcement is stored to the table Announcement.

13. Members From Departments

- List all the authorities and their departments.

Members From Departments

Authority Name	Department	Jurisdiction
user11	Campbell Police Department	Campbell
user12	Cupertino Police Department	Cupertino
user2	Gilroy Police Department	Gilroy
user6	Los Altos Police Department	Los Altos
user1	Milpitas Police Department	Milpitas
user9	Milpitas Police Department	Milpitas
user7	Palo Alto Police Department	Palo Alto
user4	San Jose Fire Department	San Jose
user8	San Jose Police Department	San Jose
user10	San Jose Police Department	San Jose
user15	San Jose Police Department	San Jose
user5	Santa Clara Fire Department	Santa Clara
user14	Santa Clara Police Department	Santa Clara
user13	Sunnyvale Police Department	Sunnyvale
user3	Sunnyvale Police Department	Sunnyvale

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By clicking the Member From Departments on the top.

```

User user = (User)request.getSession().getAttribute("user");
String[] city = request.getParameterValues("filter");
String jdbcURL = "jdbc:mysql://localhost:3306/cs157a_project?serverTimezone=EST5EDT";
String dbUser = "root";
String dbPassword = "31464573";

Class.forName("com.mysql.jdbc.Driver");
Connection connection = DriverManager.getConnection(jdbcURL, dbUser, dbPassword);
String sql = "SELECT us.username,de.departmentName, de.jurisdiction FROM Users us, (SELECT userid,departmentName,jurisdiction
Statement statement = connection.createStatement();
ResultSet result = statement.executeQuery(sql);

while(result.next()){
%>

<tr>
<td><%=result.getString("username")%></td>
<td><%=result.getString("departmentName") %></td>
<td><%=result.getString("jurisdiction") %></td>
</tr>
%>

```

**String sql = "SELECT us.username,de.departmentName, de.jurisdiction FROM Users us,
(SELECT userid,departmentName,jurisdiction FROM MemberOf me,LawEnforcement
la, Department de WHERE la.officerid=me.officerid AND me.departmentName=de.name)
de NATURAL JOIN LawEnforcement WHERE us.userid = de.userid ORDER BY
de.departmentName;";**

This will select all the authority users from the Users table by their officerId & userId & their departments and jurisdiction from the Department & LawEnforcement & MemberOf table.

Users table

	userid	username	password	phonenumbers	city
▶	1	user1	password1	4085551111	San Jose
	2	user2	password2	4085552222	Santa Clara
	3	user3	password3	4085553333	Campbell
	4	user4	password4	4085554444	Gilroy
	5	user5	password5	5105555555	Los Altos
	6	user6	password6	5105556666	Milpitas
	7	user7	password7	5105557777	Morgan Hill
	8	user8	password8	5105558888	Monte Sereno
	9	user9	password9	6505559999	Mountain View
	10	user10	password10	6505551010	Palo Alto
	11	user11	password11	6505551100	Cupertino
	12	user12	password12	6505551212	Los Altos Hills
	13	user13	password13	6695551313	Saratoga
	14	user14	password14	6695551414	Sunnyvale
	15	user15	password15	6695551515	Los Gatos
	19	user20	password	NULL	NULL
	20	ryan	password	NULL	NULL
	21	newuser	newpassw...	NULL	NULL
	22	pak	pak	5105556666	San Jose
	30	pak2	pak2	5105555555	San Jose
	NULL	NULL	NULL	NULL	NULL

Law enforcement table

	userid	officerid
▶	8	1
	1	2
	9	3
	13	4
	14	5
	10	6
	15	7
	7	8
	3	9
	12	10
	4	11
	6	12
	11	13
	5	14
	2	15
	NULL	NULL

MemberOf table**Department** table

Lessons Learned Section

Ryan Kwong:

The biggest thing that I learned was how to work with multiple technologies across the three-tier architecture. I feel like many projects that I have done are single dimensional and really only focus on a single language/tier. This project taught me a lot about MySQL, servlets, and Tomcat and how they work together to create an entire web application. Additionally, this project taught me a lot about communication and keeping a team on track on a longer term project. Overall, this project was a great hands-on experience.

Pak Shing Kan:

I really like the fact that I am able to learn so many new technologies such as jsp, MySQL, servlet code by this group project. It really helped me to have a better idea of how three-tier architecture works and how they respond to each other. Also, implementing MySQL code in our

project provides a chance for me to actually use what I learn from the class. It is a whole new experience that I am able to actually use the knowledge I learn from the class and modify it to the way I need. By implementing the program (website), I know more about MySQL, how to create a schema from the ground, make changes and update the design throughout the implementing process. After all, I think this is a great opportunity to have some hands-on experience and be able to work as a team.

Varun Reddy Mallepally:

It was a great opportunity to work with teammates like Ryan and Pak. I sure learned a lot from interacting with the both of them. This experience gave me an opportunity to build team work. Along with that, this project helped me hone my skills in HTML, CSS and has taught me about the importance of ERD diagrams and the three tier architecture. I was able to get hands-on experience of using Tomcat as well as MySQL and servlets. This has helped me get more ideas for future projects as well. The lesson I learned from this project was to focus more on the back-end part more so that we could add in new features to make the project even better. Everything taught in this course was really helpful while implementing it in our project.