



INTERNATIONAL JOURNAL OF ADVANCE RESEARCH AND DEVELOPMENT

(Volume 4, Issue 4)

Available online at: www.ijarnd.com

Saviour.com

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ABSTRACT

The critical rise in criminal activities and the increase of such cases at an alarming rate in the country seeks some concrete solutions. The people do find themselves helpless when they fall victim to such incidents. The police cannot be present the entire time at all places and hence something that could link the police with the victim before even the incident happens is critically needed. It can be proclaimed that the app 'Saviour' seeks to turn common people into citizen police and involve them into checking crimes, curbing unlawful activities and traffic violations. Our application facilitates the victim to send spontaneous alerts to the nearest police station in case he/she finds there is some sort of trouble or he/she finds someone involved in some malicious activity such as traffic violations, criminal activities, contravention of law on part of personnel in uniform, suggestions for improving policing and also the good work done by the force. The app caters for immediate assistance to the victim from the Police in case of falling in some trouble. This app serves for women safety while travelling since it has an SOS button for accessing help in emergency situations. The major area of concern is women safety during travel, especially for those who are working.

Keywords— Bootstrap, Hibernate, JSON

1. INTRODUCTION

Saviour.com enables the common masses to intimate the nearest police station in case he/she falls in some sort of trouble or senses danger of some sort. In order to avail the facility, the user first needs to access the web page <https://www.saviour.com>. He/she then needs to sign-up to the web application by entering his/her credentials in the sign-up page.

The next page that appears once the user gets registered is the login page wherein the user can enter his username and password to get access to the application. Once the correct credentials are entered, the user is logged-in and taken to a page where he/she finds a set of options to choose from that contain the different probable problems that the user might fall in.

There is a text box for the user to describe his/her problem in case they cannot find their issue in the set of options. Once the SOS button is clicked, an alert is sent to the nearest police station as well as his family member containing the details of the user, his grievance and his precise location.

A menu of some other options appears on the left vertical pane of the page which the user may choose from if he wishes to. These options contain information regarding women safety, acts and rules, terror activities, common frauds and types of crimes. Some links are also given on the title page of the web application containing important contact numbers.

2. LITERATURE REVIEW

Mr Indrajeet A. Mane, Miss. Jyotsna R. Babar, Miss. Snehal S. Patil, Miss. Sarika D. Pol Prof. Mrs Nikita R. Shetty[1]: Stay Safe Application is an innovative safety application for women, senior citizens and anyone who needs assistance in an urgent situation. This paper describes a "Stay Safe Application" that provides the combination of GPS device and specialized software to track the location as well as provide alerts and messages with sending an image related to the situation. Nowadays, due to recently happened cases such as rape by drivers or colleagues, burglary etc., employee security, especially women employee security has become very important. The system uses the Global Positioning System technology to find out the location of the person. The information of the person provided by the device can be viewed on Google maps using the Internet. The IT companies are looking forward to the security problem and require a system that will evaluate the problem of women employees' security working in night shifts. This paper focuses on the proposed model that can be used to deal with the problem of the security issue of women employees using GPS and GSM based system.

Bramarambika Thota and Udaya Kanchana Kumar P[2]: The usage of smartphones equipped with GPS navigation unit have increased rapidly from 3% to more than 20% in the past five years. Hence, a smartphone can be used efficiently for personal safety or various other protection purposes, especially for women. This paper presents Sauver, a personal safety application developed for smartphones of the Android platform. This app can be activated by a single click when the user feels she is in

danger. This application communicates the user's location to the registered contacts for every few seconds in the form of a message. Thus, it acts like a sentinel following behind the person until the user feels she is safe. The key features of this application are along with the user's location, one of the registered contacts gets a call. Also, the registered contacts and GPS location are saved from time to time in a database.

Ravi Sekhar Yarrabothu And Bramarambika Thota[3]: In today's world, people using smartphones have increased rapidly and hence, a smartphone can be used efficiently for personal security or various other protection purposes. The heinous incident that outraged the entire nation has wakened us to go for the safety issues and so a host of new apps have been developed to provide security systems to women via their phones. This paper presents Abhaya, an Android Application for the Safety of Women and this app can be activated this app by a single click, whenever the need arises. A single click on this app identifies the location of place through GPS and sends a message comprising this location URL to the registered contacts and also call on the first registered contact to help the one in dangerous situations. The unique feature of this application is to send the message to the registered contacts continuously every five minutes until the "stop" button in the application is clicked. Continuous location tracking information via SMS helps to find the location of the victim quickly and can be rescued safely.

Abhijit Paradkar ME Computer Engg student K. J. Somaiya college of Engg., Vidyavihar, Mumbai, India[4]: According to the reports of WHO, NCRB-social-government organization 35% Women all over the world are facing a lot of unethical physical harassment in public places such as railway-bus stands, footpaths etc. In this paper, the authors have reviewed various existing systems on women security. The authors have felt a need for advanced women security system to provides the safety measure in public places as well as travelling alone through public transports (school buses, company vehicle etc). This paper proposed a new model for the women security in public places which aims to provide the 100% safe environment.

2. SAVIOR.COM

2.1 Working

When the user signs-up by entering his details, his/her credentials get stored in the database in User table having attributes name, email id, password, phone no., parent's phone no., relative's phone no. and image.

They can now use it whenever they fall in any kind of trouble. They just need to log-in by using their email id and password. The moment they log-in they find a set of options to choose from that contain the different probable problems that the user might fall in. There is a text box for the user to describe his/her problem in case they cannot find their issue in the set of options.

Now once they press the SOS button, their current location is fetched using the Google Map API and the request is sent to the particular servlet as per the problem specified by the user. Simultaneously their name, email id, phone no., location, problem specified gets stored in record table in the database. Another table Admin that is backend only stores the details of police stations, having attributes latitudes, longitudes, station_name, phone number.

Now the method sendmsg(String location, String parent's no., String relative's no, String problem) of UserDao class will be called which will send SMS containing the problem and the location of the victim to the parent's phone number which was entered by the user during sign-up and another method distance(String lat, String lon) will be called which will return the phone number of police station which is nearest to the location of victim. Another method will take this as an input and send a msg to this nearest police station informing about the victim's problem and location thus enabling them to send a rescue team to the victim as soon as possible.

Now the information of the victim is received at the nearest Police Station using the following algorithm:

```
//sendmsg(String location, String parent's no., String relative's no, String problem)
```

```
public static String sendmsg(String str ,String num1, String num2)
{
try {
// Construct data
String apiKey = "apikey=" + "MSjdWuNV0GI-pSm2vJ4nz6u3h7edjx6cke1UzFeS90";
String message = "&message=" + "Saviour: i m in trouble "+str;
String sender = "&sender=" + "TXTLCL";
String numbers = "&numbers=" + num1+" "+num2;
// Send data
URLConnection conn = (URLConnection) new URL("https://api.textlocal.in/send/?").openConnection();
String data = apiKey + numbers + message + sender;
conn.setDoOutput(true);
conn.setRequestMethod("POST");
conn.setRequestProperty("Content-Length", Integer.toString(data.length()));
conn.getOutputStream().write(data.getBytes("UTF-8"));
final BufferedReader rd = new BufferedReader(new InputStreamReader(conn.getInputStream()));
final StringBuffer stringBuffer = new StringBuffer();
String line;
while ((line = rd.readLine()) != null) {
stringBuffer.append(line);
}
```

```

}
rd.close();
return stringBuffer.toString();
} catch (Exception e) {
System.out.println("Error SMS "+e);
return "Error "+e;
}

}

```

The nearest police station to the victim is found by using the following algorithm:

```

//string distance(String lat,String lon)

public static String distance(String lat,String lon)
{
double lat1=Double.parseDouble(lat);
double lon1=Double.parseDouble(lon);
String station="";
Connection conn = null;
Statement stmt = null;
try{
//STEP 2: Register JDBC driver
Class.forName("com.mysql.jdbc.Driver");

conn = DriverManager.getConnection("jdbc:mysql://localhost:3306/bank","root","");

stmt = conn.createStatement();
String sql;
sql = "SELECT lat, lon, sname FROM admin";
ResultSet rs = stmt.executeQuery(sql);
HashMap< String, Double> hm=new HashMap<>();
//STEP 5: Extract data from result set
while(rs.next()){
//Retrieve by column name
double lat2 =Double.parseDouble( rs.getString("lat"));
double lon2= Double.parseDouble( rs.getString("lon"));
String sname= rs.getString("sname");
double theta = lon1 - lon2;
double dist = Math.sin(Math.toRadians(lat1)) * Math.sin(Math.toRadians(lat2)) +
Math.cos(Math.toRadians(lat1)) * Math.cos(Math.toRadians(lat2)) * Math.cos(Math.toRadians(theta));
dist = Math.acos(dist);
dist = Math.toDegrees(dist);
dist = dist * 60 * 1.1515;
dist = dist * 1.609344;
hm.put(sname, dist);
}
Entry<String, Double> min = null;
for (Entry<String, Double> entry : hm.entrySet()) {
if (min == null || min.getValue() > entry.getValue()) {
min = entry;
}
}
station= min.getKey();
rs.close();
stmt.close();
conn.close();
}catch(SQLException se){
se.printStackTrace();
}catch(Exception e){
e.printStackTrace();
}finally{
try{
if(stmt!=null)
stmt.close();
}
}
}

```

```
}catch(SQLException se2){  
}  
try{  
    if(conn!=null)  
        conn.close();  
}catch(SQLException se){  
    se.printStackTrace();  
}  
}  
return station;  
}
```

2.2 Application flow diagram

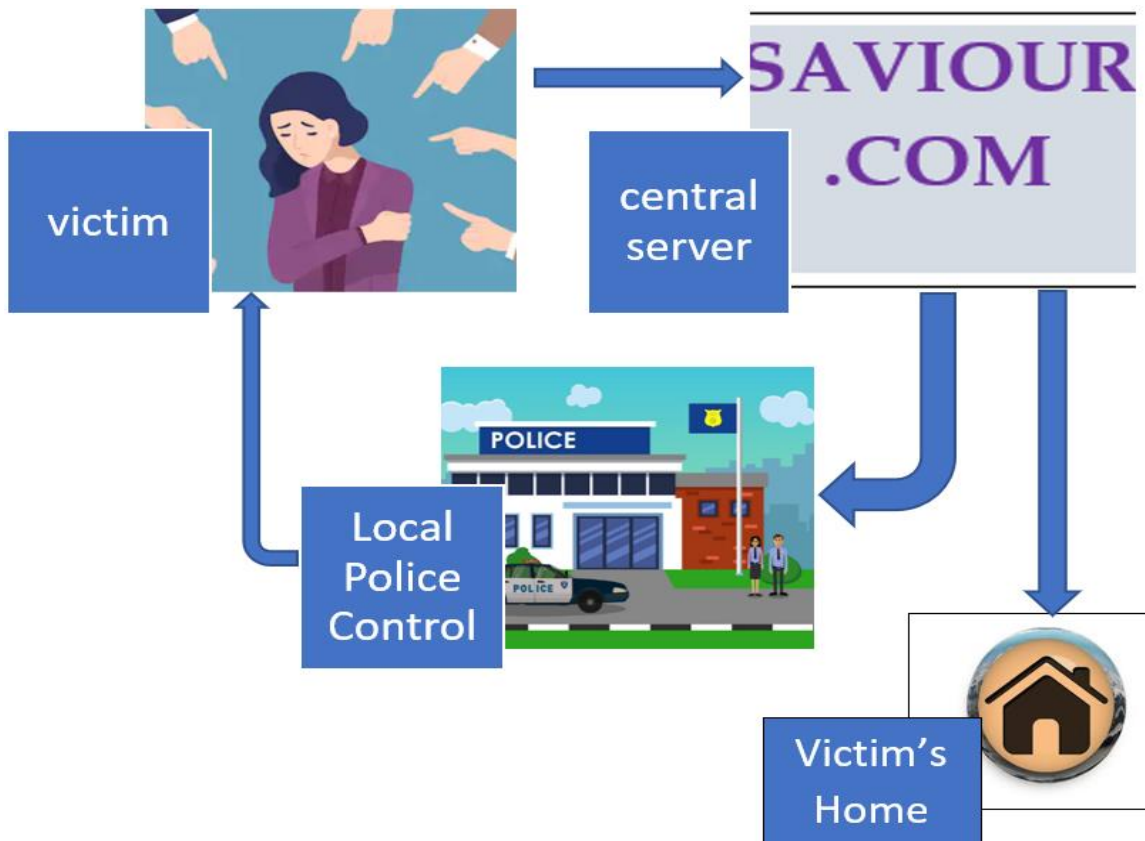


Fig. 1: Application flow diagram

2.3 Actual Application Pages Snapshots

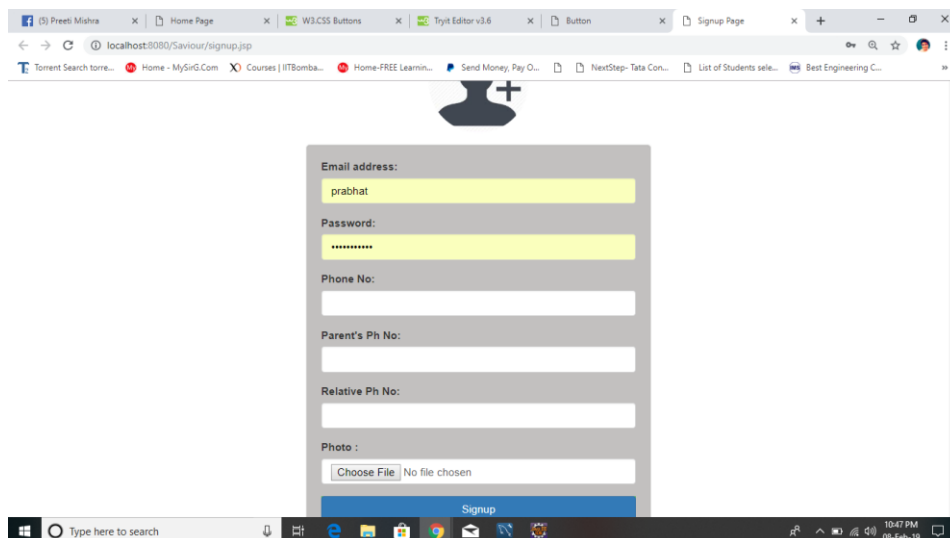


Fig. 2: Sign-up page

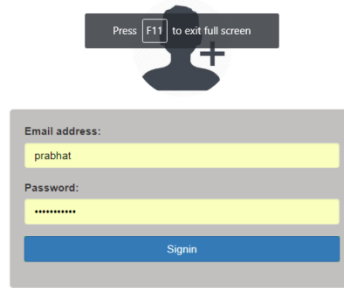


Fig. 3: Sign-in Page

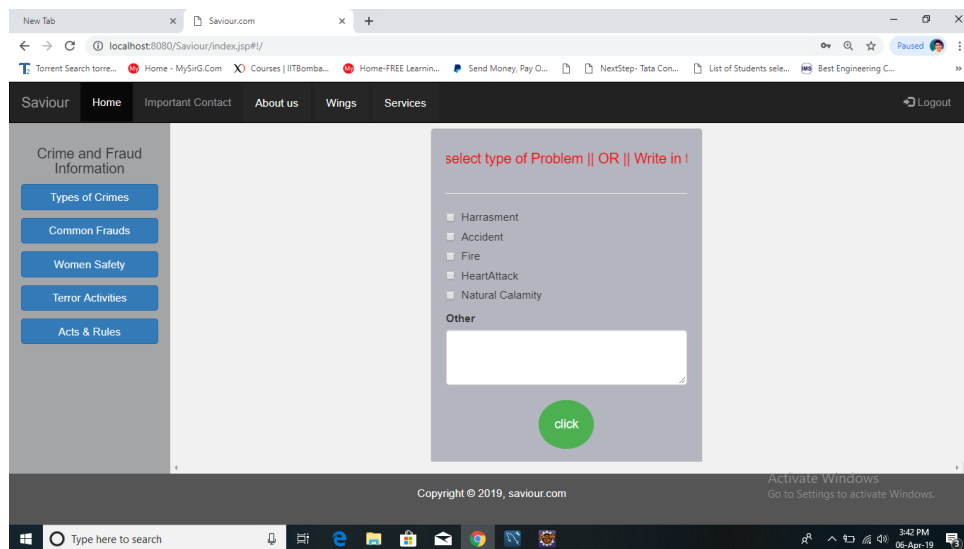


Fig. 4: Select the type of problem

3. CONCLUSION

Keeping in regard to the sharp surge in criminal offences and malicious activities, our application will serve to keep the police always informed about even the smallest of incidences. It is much anticipated that the application will help bring down the crime rate in the country and the citizens will feel much more safe and secure. In today's world almost every individual has internet access and hence the application will make it quite easy for citizens to help themselves protect against crimes and casualties.

4. FUTURE SCOPE

The application which is as of now confined to web app merely can be extended to Android application keeping in regard the vast number of smartphone users. This will not only make it easy to access the services but also the application will function smoothly in times of weak internet connectivity. Apart from that, an algorithm can be developed that will be used to process the records of the data base to drive a conclusion on the types of criminal actions occurring in different areas of various cities.

5. REFERENCES

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