# A Project Report On "Police-Database-Management-System"



# Department of Computer Science & Engineering NATIONAL INSTITUTE OF TECHNOLOGY PATNA

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**Course Code: CSL5401** 

**Course Title: Database Management System Lab** 

**Branch: BTech -CSE** 



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# 1. Introduction

We see that when a group or society is formed then some rules and laws are made by the people, for the people and to the people. The purpose of these rules and laws are to give a peaceful life to all who are living in that society and to enforce these laws we need an organization of people which we call police. Whenever any law is violated by anyone, we say that crime is committed and complaint is registered against that man by the victim to the police. To keep record of criminals, complaints, police men and data related to case we need a database of this organization.

# 2. Project Description

As the name suggests, the **Police Database Management System** is a web application that allows all the paper work that are done in the police station to be stored in one single system with great ease. It can help in handling the records easier. Sometimes if there is a need for some information of a particular case then you need to search in huge heap of files where that information is stored in those files. So that will involve in wastage of time and also effort. So, to overcome these problems, the police database management system can be useful. This will reduce a lot of pen and paper work that is involved.

The **Police Database Management System** web application can help in storing the records related to the cases, complaint record, case history and so on. This can allow a person to enter or delete the records if necessary. All these records can be maintained in a single database. Security is maintained so as to ensure that only the authorized users will have access to the system. This application will be one of the useful projects that the police can rely on. This application can help in getting the information of the cases of many years back. It can also help in minimizing most of the work of the police. The features that can be included in this application are as follows:

- head
- complaint
- police
- police\_station
- update\_case
- user

The database crime\_portal includes 6 relations(tables) as shown in the Snapshot which includes head, complaint, police, police\_station, update\_case and user.

```
mysql> use crime_portal;
Database changed
mysql> show tables;
+-----+

| Tables_in_crime_portal |
+-----+

| complaint |
| head |
| police |
| police_station |
| update_case |
| user |
+-----+
6 rows in set (0.01 sec)
```

#### user

The relation/table user stores the information about user.

Attributes of the table user are shown in the snapshot attached below.

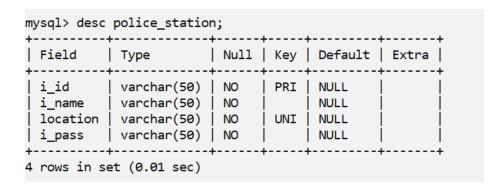
Field	Type	Null	Key	Default	Extra
u_name	varchar(50)	NO		NULL	 
u_id	varchar(50)	NO	UNI	NULL	l i
u_pass	varchar(50)	NO	ĺ	NULL	l İ
u_addr	varchar(100)	NO	ĺ	NULL	l İ
a_no	bigint	NO	PRI	NULL	l İ
gen	varchar(15)	NO	İ	NULL	i i
mob	bigint	NO	UNI	NULL	i i

The a\_no acts as the primary key for the table and unique constraint is applied on fields u\_id and mob.

#### police\_station

The relation/table police\_station stores the information about various police station and there incharge based on location.

Attributes of the table user are shown in the snapshot attached below.

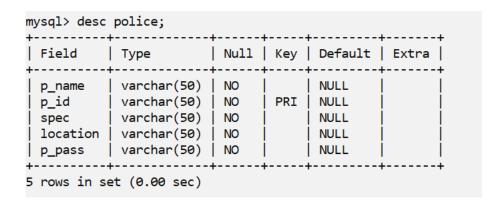


The i\_id acts as the primary key for the table and unique constraint is applied on field location as for each location one police station is assigned.

#### police

The relation/table police stores the information about various police assigned at a location.

Attributes of the table user are shown in the snapshot attached below.



The p\_id acts as the primary key for the table and not null is selected for every attribute.

#### head

The relation/table head stores the login info about the head

Attributes of the table user are shown in the snapshot attached below

mysql> des	sc head;				L
Field		Null	Key	Default	Extra
h_id   h_pass	varchar(50) varchar(50)	NO NO		NULL   NULL	
•	set (0.01 sec	•		,	,

# complaint

The relation/table complaint stores the information about complaint made by user.

Attributes of the table user are shown in the snapshot attached below.

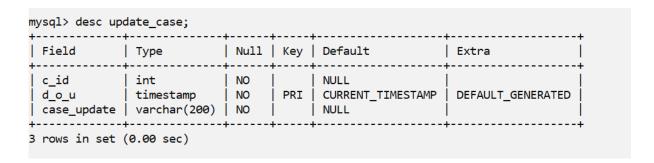
Field	Туре	Null	Key	Default	Extra
c_id a_no location type_crime d_o_c description inc_status	int   bigint   varchar(50)   varchar(50)   date   varchar(7000)   varchar(50)	NO NO NO NO NO NO NO NO NO NO NO YES	PRI	NULL NULL NULL NULL NULL NULL NULL UNULL NULL Unassigned	auto_increment       
pol_status p_id	varchar(50) varchar(50)	YES YES		null null	

Here the c\_id acts as primary key.

## update\_case

The relation/table update\_case stores the updates made by police on certain cases.

Attributes of the table user are shown in the snapshot attached below.



Here the d\_o\_u acts as primary key.

# 3. Project Requirements:

#### Hardware Requirements for Use:

- Keyboard
- Mouse
- Screen solution of at least 1024\*768 required for proper and complete viewing of screen
- RAM 1GB
- Hard Disk 250 GB

#### Requirement for software:

- PHP
- HTML
- CSS
- JAVASCRIPT
- BOOTSRAP

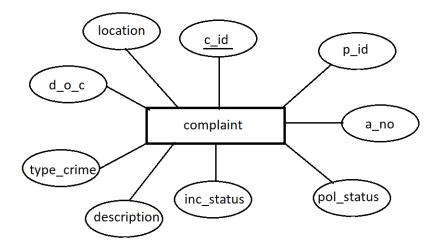
#### Software Requirement for use:

- Operating system- Desktop and laptop-based OS
- Server XAMPP Control v3.3.2
- Application software: PHP, MYSQL, Java script
- Web browser like Chrome, Brave.

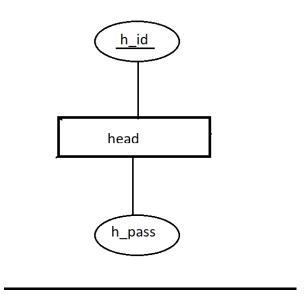
# 4. ER-Diagram

# ER of all relations:

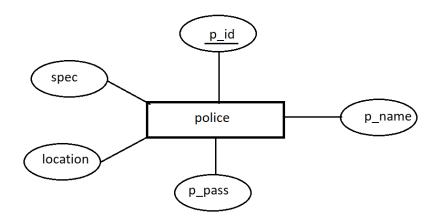
complaint



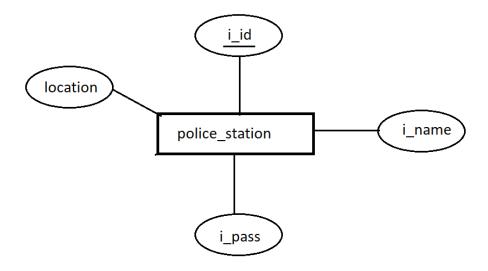
head



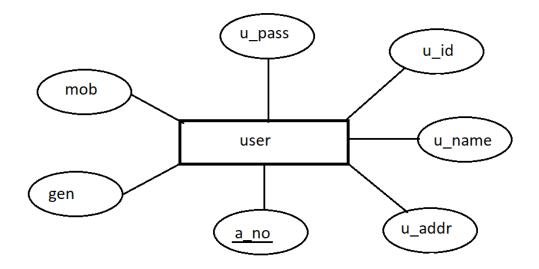
# police



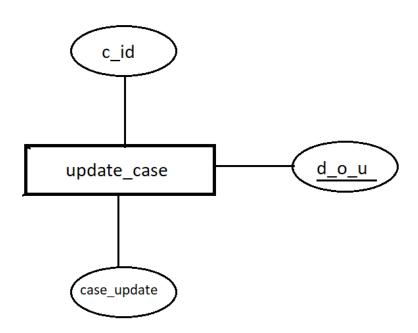
# police\_station



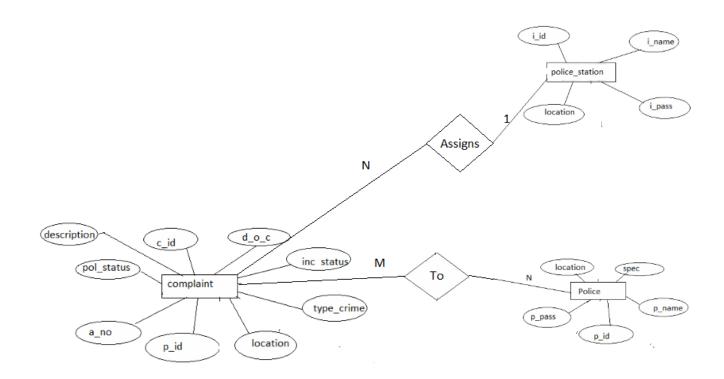
#### user



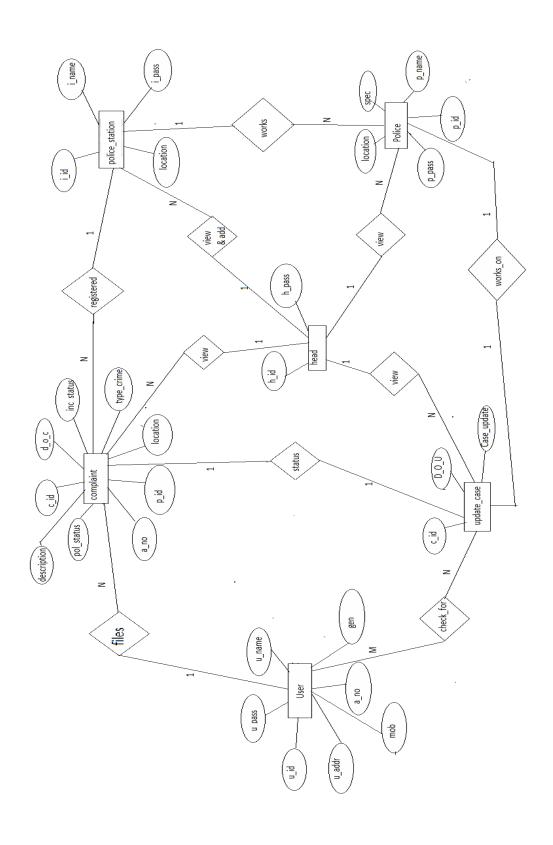
# update\_case



# ER of relation between police\_station, police and complaint



# ER of relation between all the relations in the database



# 5. SQL Query

```
-- phpMyAdmin SQL Dump
-- version 4.8.0.1
-- https://www.phpmyadmin.net/
-- Host: 127.0.0.1
-- Generation Time: Dec 17, 2018 at 04:19 PM
-- Server version: 10.1.32-MariaDB
-- PHP Version: 5.6.36
SET SQL MODE = "NO AUTO VALUE ON ZERO";
SET AUTOCOMMIT = 0;
START TRANSACTION;
SET time zone = "+00:00";
/*!40101 SET @OLD CHARACTER SET CLIENT=@@CHARACTER SET CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD COLLATION CONNECTION=@@COLLATION CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;
-- Database: `crime portal`
-- Table structure for table `complaint`
CREATE TABLE `complaint` (
  `c id` int(11) NOT NULL,
  `a no` bigint(12) NOT NULL,
  `location` varchar(50) NOT NULL,
  `type crime` varchar(50) NOT NULL,
  `d o c` date NOT NULL,
  `description` varchar(7000) NOT NULL,
  `inc_status` varchar(50) DEFAULT 'Unassigned',
  `pol_status` varchar(50) DEFAULT 'null',
  `p id` varchar(50) DEFAULT 'Null'
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `complaint`
INSERT INTO `complaint` (`c_id`, `a_no`, `location`, `type_crime`,
```

```
(4,987667895432, 'Gandhi Maidan', 'Pick Pocket', '2022-11-09',
'around 5:30 pm ', 'Assigned', 'In Process', 'p01ak');
__ ______
-- Table structure for table `head`
CREATE TABLE `head` (
  `h id` varchar(50) NOT NULL,
 `h pass` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `head`
INSERT INTO `head` (`h_id`, `h_pass`) VALUES
('bhaskarmondal@gmail.com', 'dbmscse1');
-- Table structure for table `police`
CREATE TABLE `police` (
  `p_name` varchar(50) NOT NULL,
  `p id` varchar(50) NOT NULL,
  `spec` varchar(50) NOT NULL,
  `location` varchar(50) NOT NULL,
  `p pass` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `police`
INSERT INTO `police` (`p_name`, `p_id`, `spec`, `location`,
`p_pass`) VALUES ('Chandan Gupta', 'p16cg', 'All', 'Rajendra Nagar',
'chandanrn');
-- Table structure for table `police station`
CREATE TABLE `police_station` (
  `i_id` varchar(50) NOT NULL,
  `i name` varchar(50) NOT NULL,
  `location` varchar(50) NOT NULL,
  `i pass` varchar(50) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
-- Dumping data for table `police station`
INSERT INTO 'police station' ('i id', 'i name', 'location',
`i_pass`) VALUES ('pranavs@danapur', 'Pranav Shukla', 'Danapur',
'pranav');
INSERT INTO 'police station' ('i id', 'i name', 'location',
`i pass`) VALUES ('prateeks@gandhimaidan', 'Prateek Saurav', 'Gandhi
Maidan', 'prateek');
-- Table structure for table `update case`
CREATE TABLE `update case` (
  `c id` int(11) NOT NULL,
  `d o u` timestamp NOT NULL DEFAULT CURRENT TIMESTAMP,
  `case update` varchar(200) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `update case`
INSERT INTO `update case`(`c id`, `d o u`, `case update`) VALUES
('[value-1]','[value-2]','[value-3]')
-- Table structure for table `user`
CREATE TABLE `user` (
  `u name` varchar(50) NOT NULL,
  `u id` varchar(50) NOT NULL,
  `u_pass` varchar(50) NOT NULL,
  `u addr` varchar(100) NOT NULL,
  `a no` bigint(12) NOT NULL,
  `gen` varchar(15) NOT NULL,
  `mob` bigint(10) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
-- Dumping data for table `user`
INSERT INTO `user` (`u_name`, `u_id`, `u_pass`, `u_addr`, `a_no`,
`gen`, `mob`) VALUES ('Aditi Sinha', 'aditis@gmail.com', 'sinhaa',
'Jabalpur', '765434568213', 'female', '8765345689');
-- Indexes for dumped tables
```

```
-- Indexes for table `complaint`
ALTER TABLE `complaint`
 ADD PRIMARY KEY (`c id`);
-- Indexes for table `police`
ALTER TABLE `police`
 ADD PRIMARY KEY (`p id`);
-- Indexes for table `police station`
ALTER TABLE `police station`
 ADD PRIMARY KEY (\(\)i id\(\)),
 ADD UNIQUE KEY `location` (`location`);
-- Indexes for table `update case`
ALTER TABLE `update case`
 ADD UNIQUE KEY `d o_u` (`d_o_u`);
-- Indexes for table `user`
ALTER TABLE `user`
 ADD PRIMARY KEY (`a_no`),
 ADD UNIQUE KEY u id (u id),
 ADD UNIQUE KEY `mob` (`mob`);
-- AUTO INCREMENT for dumped tables
-- AUTO INCREMENT for table `complaint`
ALTER TABLE `complaint`
 MODIFY `c id` int(11) NOT NULL AUTO INCREMENT, AUTO INCREMENT=2;
COMMIT;
/*!40101 SET CHARACTER SET CLIENT=@OLD CHARACTER SET CLIENT */;
/*!40101 SET CHARACTER SET RESULTS=@OLD CHARACTER SET RESULTS */;
/*!40101 SET COLLATION CONNECTION=@OLD COLLATION CONNECTION */;
```

# SQL QUERY INCLUDED IN PHP FILES

```
$query="select c_id,description,inc_status,pol_status from
complaint natural join user where c_id='$c_id' and
u_id='$u_id'";
  $result=mysqli_query($conn,$query);
  $res2=mysqli_query($conn,"select d_o_u,case_update from
update case where c id='$c id'");
$result1=mysqli_query($conn,"SELECT a_no FROM user
where u_id='$u_id''');
    $q2=mysqli fetch assoc($result1);
    $a_no=$q2['a_no'];
$resu=mysqli_query($conn,"SELECT a_no FROM complaint
where c_id='$cid'");
       $qn=mysqli_fetch_assoc($resu);
$result=mysqli_query($conn,"SELECT a_no FROM user
where u_id='$u_id' ");
    $q2=mysqli_fetch_assoc($result);
    $a_no=$q2['a_no'];
```

```
$result1=mysqli_query($conn,"SELECT u_name FROM
user where u_id='$u_id' ");
    $q2=mysqli_fetch_assoc($result1);
    $u_name=$q2['u_name'];
$comp="INSERT into
complaint(a_no,location,type_crime,d_o_c,description)
values('$a_no','$location','$type_crime','$d_o_c','$description'
)";
   mysqli_select_db($conn,"crime_portal");
   $res=mysqli_query($conn,$comp);
$query="select c_id,description,inc_status,pol_status,location
from complaint where c_id='$c_id'";
  $result=mysqli_query($conn,$query);
   $res2=mysqli_query($conn,"select d_o_u,case_update
from update_case where c_id='$c_id'");
$query="select i_id,i_name,location from police_station";
  $result=mysqli_query($conn,$query);
$query="select c id,type crime,d o c,location from
complaint where location='$loc' order by c id desc";
  $result=mysqli_query($conn,$query);
```

```
$name=$ POST['email'];
    $pass=$_POST['password'];
    $result=mysqli_query($conn,"SELECT h_id,h_pass
FROM head where h_id='$name' and h_pass='$pass' ");
$result1 = mysqli_query($conn, "SELECT location FROM
police_station where i_id='$i_id'");
  $q2 = mysqli_fetch_assoc($result1);
  //$status = $q2['inc_status'];
  $loc=$q2['location'];
  $query = "select c_id,type_crime,d_o_c,description from
complaint where inc_status='Unassigned'and location='$loc'
order by c_id desc";
  $result = mysqli_query($conn, $query);
$res1=mysqli_query($conn,"SELECT p_id FROM police
where p_name='$pname''');
    $q3=mysqli_fetch_assoc($res1);
    $pid=$q3['p_id'];
    $res=mysqli_query($conn,"update complaint set
inc_status='Assigned',pol_status='In Process',p_id='$pid'
where c_id='$cid''');
```

```
$query="select c_id,type_crime,d_o_c,description from
complaint where c_id='$cid' and location='$location'";
  $result=mysqli_query($conn,$query);
$query="select c_id,type_crime,d_o_c,description from
complaint where c_id='$cid' and location='$location' order by
c_id desc";
  $result=mysqli_query($conn,$query);
$i_id=$_SESSION['email'];
  $result1=mysqli_query($conn,"SELECT location FROM
police_station where i_id='$i_id'");
  $q2=mysqli_fetch_assoc($result1);
$qu=mysqli query($conn,"select inc status,location from
complaint where c_id='$cid'");
    $q=mysqli_fetch_assoc($qu);
    $inc_st=$q['inc_status'];
$query="select
c_id,type_crime,d_o_c,location,inc_status,p_id from
complaint where location='$location' order by c_id desc";
  $result=mysqli_query($conn,$query);
```

```
$result1=mysqli_query($conn,"SELECT location FROM
police_station where i_id='$i_id'");
$q1=mysqli_query($conn,"delete from police where
p_id='$pid'");
       $q3=mysqli_query($conn,"update complaint set
pol_status='null',inc_status='Unassigned',p_id='Null' where
p_id='$pid'");
$result=mysqli_query($conn,"select
p_id,p_name,spec,location from police where
location='$location'");
$result=mysqli_query($conn,"SELECT i_id,i_pass FROM
police_station where i_id='$name' and i_pass='$pass' ");
$result1=mysqli_query($con,"SELECT location FROM
police station where i id='$i id'");
  $q2=mysqli_fetch_assoc($result1);
  $location=$q2['location'];
$query="select
c_id,type_crime,d_o_c,description,mob,u_addr from
complaint natural join user where c_id='$cid' and
p_id='$p_id'";
  $result=mysqli_query($conn,$query);
```

```
$qu1=mysqli_query($conn,"insert into
update_case(c_id,case_update) values('$cid','$upd')");
$res2=mysqli_query($conn,"select d_o_u,case_update from
update case where c id='$cid'");
$result=mysqli_query($conn,"SELECT
c_id,type_crime,d_o_c,location,mob,u_addr FROM complaint
natural join user where p_id='$p_id' and
pol_status='ChargeSheet Filed' order by c_id desc");
  ?>
$cid=$ POST['cid'];
    $_SESSION['cid']=$cid;
    $alok=mysqli_query($conn,"SELECT p_id FROM
complaint WHERE c_id='$cid'");
    $row = mysqli_fetch_assoc($alok);
    $p_id=$_SESSION['pol'];
$result=mysqli_query($conn,"SELECT
c_id,type_crime,d_o_c,location FROM complaint where
p_id='$p_id' and pol_status='In Process' order by c_id desc");
  ?>
$reg="insert into police_station"
values('$i_id','$i_name','$loc','$u_pass')";
```

```
$name=$_POST['email'];
    $pass=$_POST['password'];
    $result=mysqli_query($conn,"SELECT p_id,p_pass
FROM police where p_id='$name' and p_pass='$pass' ");

$reg="insert into user
values('$u_name','$u_id','$u_pass','$u_addr','$a_no','$gen','$m
ob')";
    mysqli_select_db($con,"crime_portal");
    $res=mysqli_query($con,$reg);

$result=mysqli_query($con,"SELECT u_id,u_pass FROM
user where u_id='$name' and u_pass='$pass' ");
```

# Updated table snapshots after performing the queries

#### user

	u_id	u_pass	-	a_no	gen	mob
Aditi Sinha	aditis@gmail.com	sinhaa	Jabalpur	765434568213	Female	8765345689
Nitish Kumar	nitishk@gmail.com	kumarn	Gaya	789065432456	Male	7896432156
Shikha Singh	shikhas@gmail.com	singhs	Patna	943256789123	Female	9508667891
Abhijeet Kumar	abhijeetk@gmail.com	kumara	Aurangabad	987634561289	Male	8790654361
Prince Pranav	princep@gmail.com	pranavp	Bhagalpur	987667895432	Male	9876578645

# police

p_name	p_id	spec	location	p_pass
Alok Kumar Sahil Kumar Jay Singh Manish Singh Chandan Gupta Suvendu Ghosh Chetan Lal Nishant Singh Rajeev Verma Shobhit Ranjan	p01ak   p01sk   p12js   p12ms   p16cg   p16sg   p20cl   p20ns   p24rv	All All All Murder All Robbery All All All All	Gandhi Maidan Gandhi Maidan Danapur Danapur Rajendra Nagar Rajendra Nagar Kankarbagh Kankarbagh Rajeev Nagar	alokgm shahilgm jayda manishda chandanrn suvendurn chetank nishantk rajra shobhitra

# police\_station

i_id	i_name	location	i_pass
pranavs@danapur	Pranav Shukla	Danapur	pranav
prateeks@gandhimaidan	Prateek Saurav	Gandhi Maidan	prateek
ravis@rajendranagar	Ravi Shrivastav	Rajendra Nagar	ravi
shivamp@kankarbagh	Shivam Pandey	Kankarbagh	shivam
shivs@rajeevnagar	Shiv Sharma	Rajeev Nagar	shiv

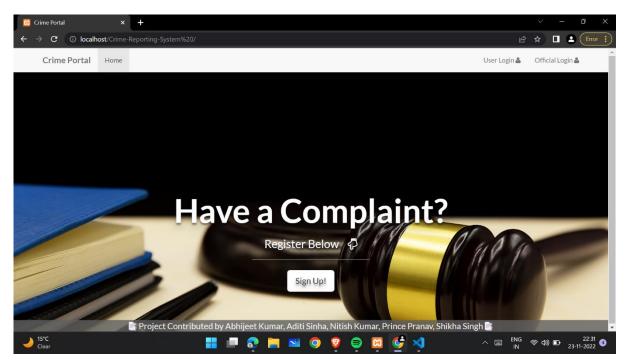
# complaint

	nysql> select * from complaint;								
c_id	a_no	location	type_crime	d_o_c	description	inc_status	pol_status	p_id	
4	987667895432	Gandhi Maidan	Pick Pocket	2022-11-09	around 5:30 pm	Assigned	In Process	p01ak	
•	n set (0.00 sec)						,		

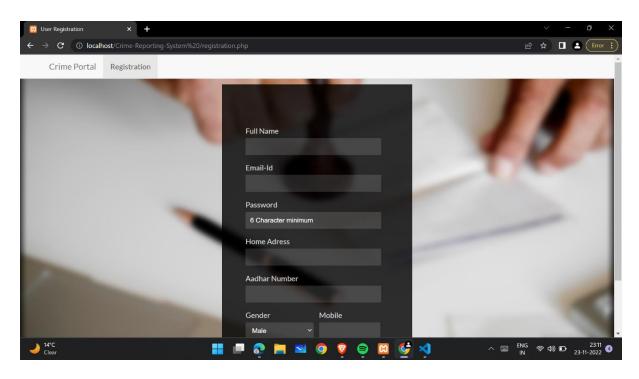
# <u>head</u>

# 6. Interface of App

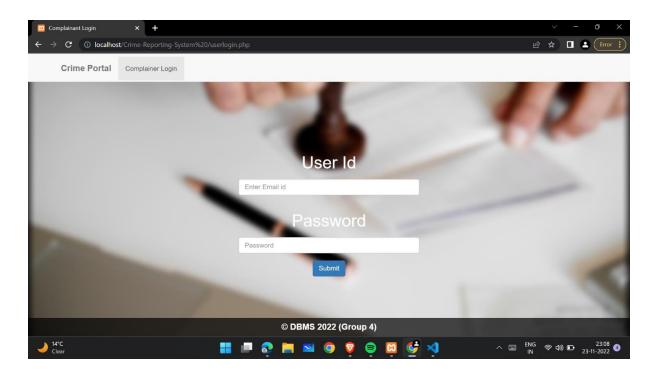
## **Home Page**



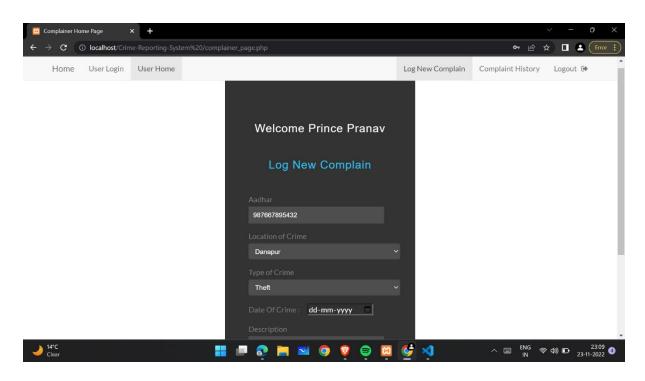
## **New User Registration Page**



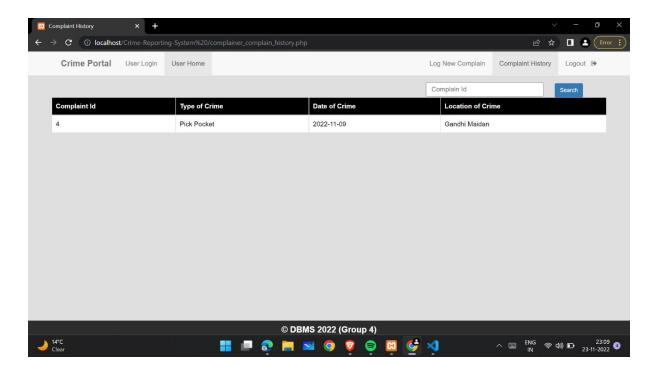
# Old User Login Page



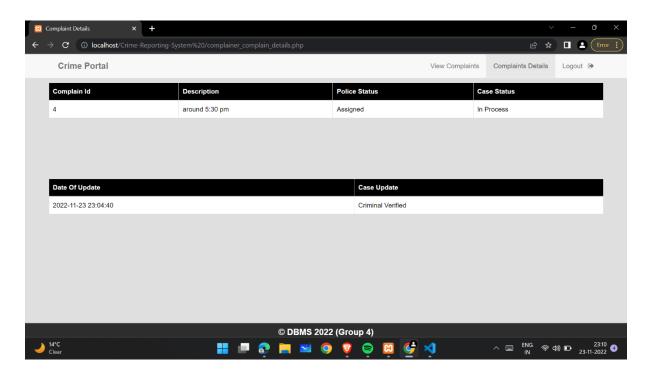
# Old User register new complaint page



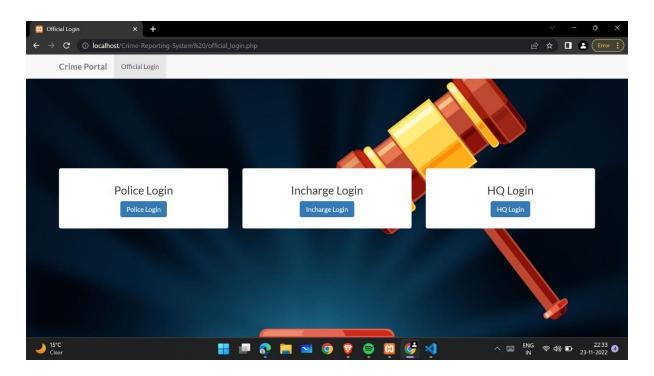
## **Old User Complain History Page**



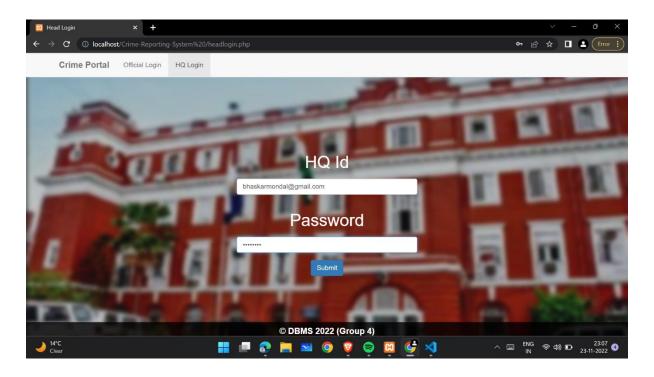
## **Old User Complaint Detail Page**



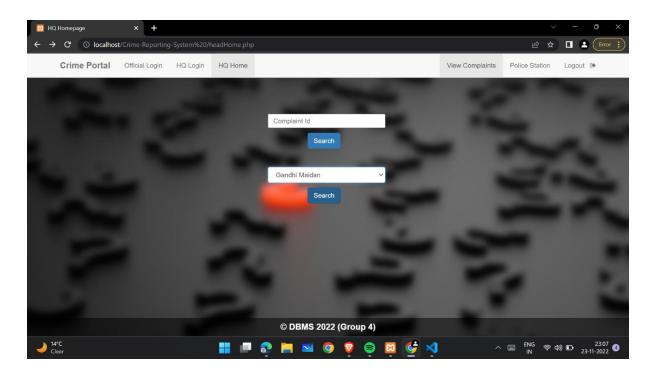
# Official Login Page



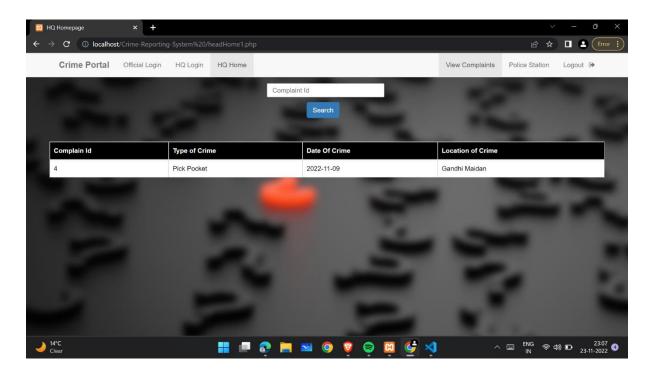
# **Head Login Page**



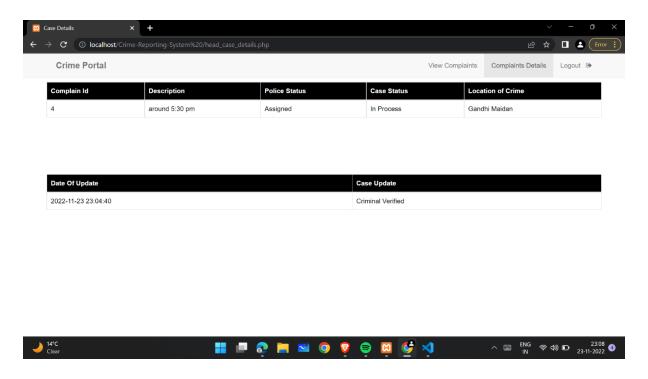
# **Head View Complain Page**



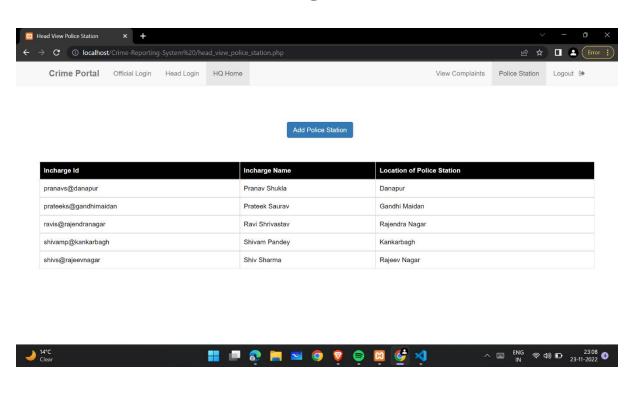
# Head search complain using location Page



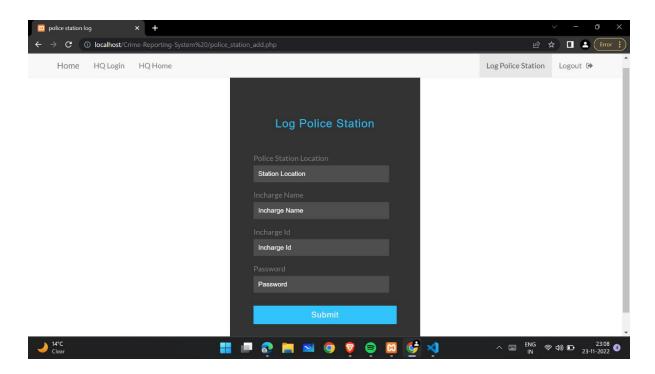
## **Head View Complain using Complain ID Page**



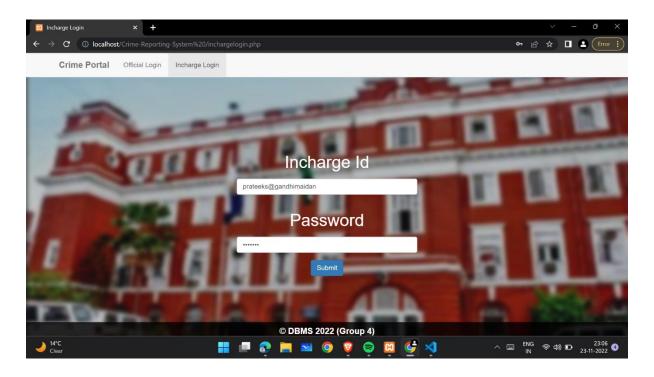
## **Head View Police Station Page**



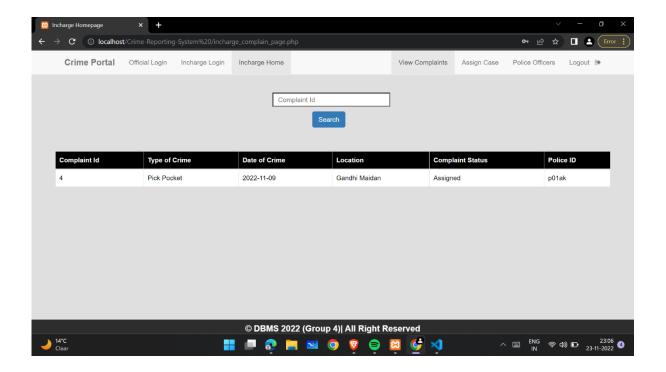
# **Head Add Police Station Page**



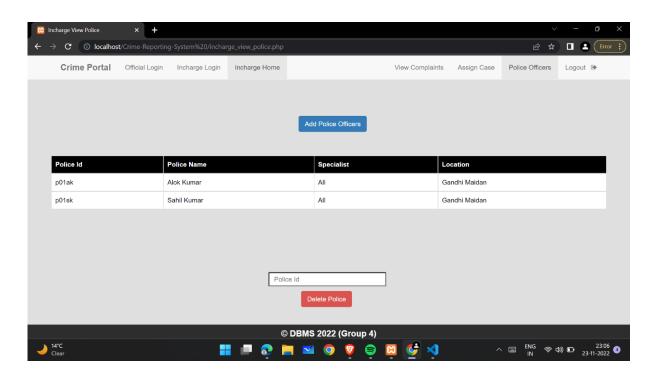
# **Incharge Login Page**



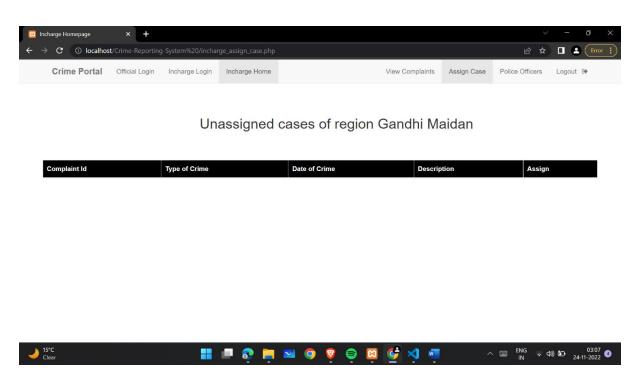
#### **Incharge View Complain Page**



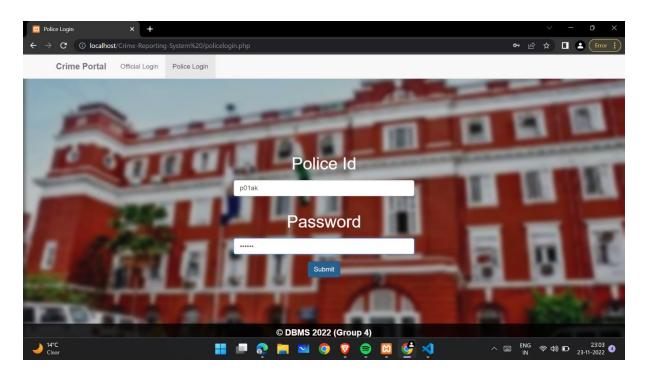
## **Incharge Police Officer Page**



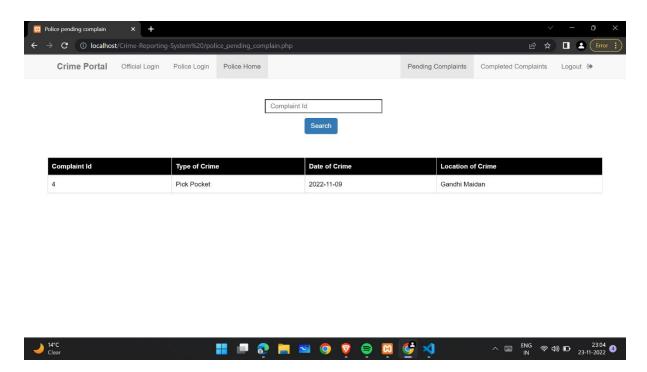
# **Incharge Assign Complain Page**



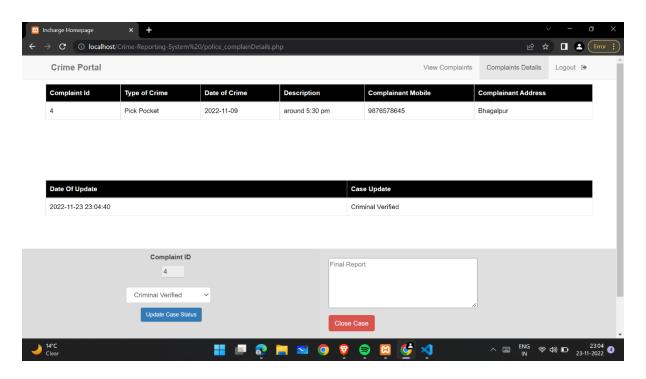
# **Police Login Page**



## **Police Complain Detail Page**



# **Police Update Case Page**



# 7. Future Scope

- We can store fingerprints of criminal in database
- Security can be extended to higher level of security
- This project can be enhanced that we can search criminals by matching face and finger prints.
- We can also generate the report of all cases associated to a particular criminal.

# 8. Summary

Nowadays, technology is increasing day by day for making the work of human being easier. Day by day crimes are increasing in our society. New techniques have been used during crimes. Well, we developed this website to help the police and other officers and security appointed at different places.

They can easily find out any criminal's full description which will help them in investigating several cases much faster and easier.

POLICE DATABASE MANAGEMENT SYSTEM initiates the objective of providing the user with customized and powerful complaint registration and process management system side software. The software is built with all options such as complaint registration, case updation, and investing officer assignment, etc.

All the requirements specified during the analysis and design phase are fully met, thus resulting in the formation of good software. The interface provided is very user friendly and flexible for all times.

# 9. Reference

- <a href="https://projectsinventory.com/functional-and-non-functional-requirements-of-crime-reporting-system/">https://projectsinventory.com/functional-and-non-functional-requirements-of-crime-reporting-system/</a>
- https://projectsinventory.com/online-crime-reporting-system-in-php/
- <a href="https://projectsinventory.com/use-case-diagram-of-crime-reporting-system/">https://projectsinventory.com/use-case-diagram-of-crime-reporting-system/</a>
- <a href="https://projectsinventory.com/class-diagram-of-crime-reporting-system/">https://projectsinventory.com/class-diagram-of-crime-reporting-system/</a>