ONLINE CRIME REPORTING SITE

BY-
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PROJECT DESCRIPTION-

1. Crime is a part of illegal activities in human life. It is quite obvious that the rate of crimes is increasing day by day in all societies across the world, but we do believe that there is a lot which can be done by both the governments and the individuals to reduce the crimes in communities.

2. Hence, we have proposed an online crime reporting system which allows the user to file complaints or missing reports and keep a track of it. There are 3 categories that a user can file; Complaint, Crime Report and Missing Report and can see all the status of what action has been taken by the admin.

3. To file any of the above 3 complaints, the user should register in to the system and provide his right credentials to file them. The crime reporting system project also allows other users who doesn't want to register but can check the crimes happening at his/her or any other area, has to just provide the pin code and in return the system displays the list of crimes if any filed.

4. Python, Django, and SQLite3 Database, we built a Online Crime Reporting System portal which helps users to submit their complaint online easily. The system, has both the user as well the Admin Part, the role of admin is to just check all the 3 modules or categories and update their status likewise.

SESSION- 1 BUSINESS CASE TEMPLATE

THE PROJECT-

It will help the users to report crimes about missing person or theft by uploading images and videos of the same. So that it will help the authorities to take action immediately.

THE HISTORY-

Currently crime rates have decreased due to covid -19.

LIMITATIONS-

This project may not be that secured because anyone can view anyone's profile.

APPROACH-

A proper idea and approach is needed to complete this project. Apart from that Front end and backend knowledge is required.

BENEFITS-

It can make crime reporting quick and fast. Information about crimes can reach the authorities quickly and they can take preferred action against it.

PROBLEM CONSTRAINTS-

- What is the Purpose and Need for the work?

There are different causes for delay in solving criminal cases such as lack of resources or not getting proper information on time. Online reporting can help in arranging the crimes in proper manner and will also help to provide a lot more information because those who were the witnesses can also help in providing extra information with images and videos.

- What questions need to be answered?

Proper arrangement of data and security of users.

- What key issues should be considered?
- The users can report crime at anytime.
- Authorities should respond to the user.
- Crimes should be arranged according to the respective jurisdiction.
- User can delete the reported crime at anytime.
- Not all the basic detail of the user should be public.

- What are the Goals and Objectives of the work?

Goals and objectives of this work is to make crime reporting easy and systematic.

- Who is the audience?

Residence of the country are the audience.

- What types of useable information and tools are available and practical?
- Codes and description for reference are available online from where we can refer for our project.

Schedule, Resource, and Budget Constraints -

- What are the Existing Resources? Are they internal or external?

We have existing source code in Django which we will use for reference and we will improvise it with respect to the project.

- What is the Feasible Budget?

Minimum budget.

- What are the time constraints that may dictate delivery of work items?

Short of man power , Pandemic situation, budget constraints

- What is the availability and quality of existing data?

Availability is vast and quality is good for existing data.

SESSION-2 STAKEHOLDERS AND PROCESS MODELS

STAKEHOLDER TABLE

PROJECT NAME: ONLINE CRIME REPORTING SITE

PREPARED BY: SAMPURNA,DHRUVA

DATE: 11-03-2022

Project Stakeholder name	SPECIFIC INFORMATION NEEDS Types & frequency of communication	PROJECT INTEREST Specific error of interest and participation	IMPACT ON PROJECT Positive and negative influence, supporter, roadblock	ROLES Decision maker,collaboration, participant, consultant,info-recipient
DR.N.Arivazhagan	Live meeting and video conferencing	Control tracking and management of project	Influencer	Project Manager and review
Sampurna Bhattacharya	Live meeting	Web-Design	Positive	Front end developer
Dhruva Bhattacharya	Live meeting	Logical and algorithm design	Positive	Algorithm developer

SUITABLE MODEL FOR OUR PROJECT-

The process model which is best for us is **Agile –Extreme Programming.**
Since, our project is based on user's requirements Agile(XP) will be best suited for it. XP planning is based on creation of user stories that describes required output, features and functionality for software to be built.
Agile XP encourages pair programming, so that communication is easier.Since, its approach is adaptive, management style is decentralized and people oriented.
Agile (XP) consists of-

1. Simple design – our project should be easy to understand and user friendly.
2. .Testing- Codes should be tested before using so that errors can be avoided.
3. Code review – Code will be review by the experts.
4. Feedback – We will try to take maximum feedbacks from people possible.

SESSION -3 SYSTEM REQUIREMENTS

System Requirements –

1. Domain for site.
2. Server hosting site and database.

User requirement-

1. System with working internet connection(Ethernet/WIFI)
2. Any Browser would work(Firefox, Google Chrome, Opera)
3. Windows OS(Windows 7 and above)
4. Mac OS
5. Smart Phone

FUCTIONAL REQUIREMENTS –

1. The site serves as a medium for accessing and editing the centralized database.
2. Displaying information to the users.
3. Provides different options for reporting.
4. Shows progress on reports/ongoing reports.
5. Notify user's about completion of reports.
6. Sends the results of the report to the particular destination.
7. Easy to use UI for accessing site.
8. Continuously update information through any method by authorized user.
9. Display information in easy to read format.
10. Can be accessed anywhere through smartphone browser.
11. Show data of report to the user.
12. Show date's of submission of report to users.
13. Priorities report according to report of user.
14. The details of the report can be accessed only by the authorized user only.
15. Users can edit, create or delete reports with ease.

NON FUNCTIONAL RQUIREMENTS-

1. **Security –**

- Due to nature of application , data and workings of the program are secretive and need to have limited access .
- Only authorised users in authorized system can access the site.
- Physical storage locations of server and database need to be secure.
- Our website will protect the personnel data of the users.

2. **Portability-**

- Our website can be accessed with the help of any browser like Opera, Firefox, Chrome, Microsoft edge etc.
- Our website is compatible with any browser and any system , whether it is Windows, Linux or Mac OS.

3. **Performance-**

- Our website responds smoothly to users actions.
- Our website is scalable , can be used under higher workload of systems.

4. **Reliability-**

- Our website would run without a failure for a given time , under certain conditions.

5. **Maintainability-**

- Our website will be maintained , fixed to increased performance.

6. **Availability –**

- Our website will be available 24/7 and the user can access it anytime.

7. **Flexibility-**

- Our website will be flexible to any change.

SESSION -4 PROJECT PLAN, ESTIMATIONS & JOB RESPONSIBILITIES

PROJECT MANAGEMENT PLAN–

Integration Management-

Governance Framework:

Project governance provides direction and defines decision making procedures and matrices for validating impacts to the project

Project Team Structure:

Team consists of 2 members

Roles & Responsibilities of Team:

Frontend & Backend-Sampurna

Coding UI/UX-Dhruva

Change Management:

For this project we have been given 3 months but we will try to complete it by the changing the codes if the deadline is near.

Project Closure:

At least I will check that no bugs are present and we will also verify our codes with the project manager for approval.

Cost Management-
Estimate Effort :10 HRS

Assign Team: Dhruva & Sampurna

Budget Control: 1000 RS

Resource Management-
Estimate and manage the need

People: People & Skills Required:

A small team consisting of 2 people with skills of frontend and backend and UI/UX.

Finance: Budget Required: Zero budget Project

ESTIMATION
EFFORT AND COST ESTIMATION–

Cocomo (Constructive Cost Model) is a regression model based on LOC, i.e number of Lines of Code. It is a procedural cost estimate model for software projects and is often used as a process of reliably predicting the various parameters associated with making a project. It was proposed by Barry Boehm in 1981.

BASIC MODEL:
1. Effort=E=a*(KLOC)^b 2. Development Time= c*(Effort)^d
3. Person Required= Effort / Time

Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
Design the user screen	E1R1A1T1 (Effort-Requirement-Activity-Task)	User enter his/her details to create their account.	1	500
	E1R1A1T2	Registered people can enter it.	1	500
	E1R1A1T3	We will create a login page.	2	1000
	E1R1A1T4	Taking the data from the user.	3	1500
Identify Data Source for displaying units of Energy Consumption		Technical support	5	2500
		Evaluation and testing	5	2500
			17	8500

INFRASTRUCTURE OR RESOURCE COST–

Infrastructure Requirement	Qty	Cost per qty	Cost per item
Software	3	3000	9000
Storage	1	5000	5000
Advertising	4	4000	16000

IDENTIFICATION OF TEAM MEMBERS—

Name	Role	Responsibilities
Dr.N. Arivazhagan	Project Manager	Manage the project
Dhruva	Technical Lead	Design the end-to-end architecture
Sampurna	UX Designer	Design the user experience
Dhruva	Frontend Developer	Develop user interface
Dhruva	Backend Developer	Design, Develop and Unit Test Services/API/DB
Sampurna	Tester	Define Test Cases and Perform Testing

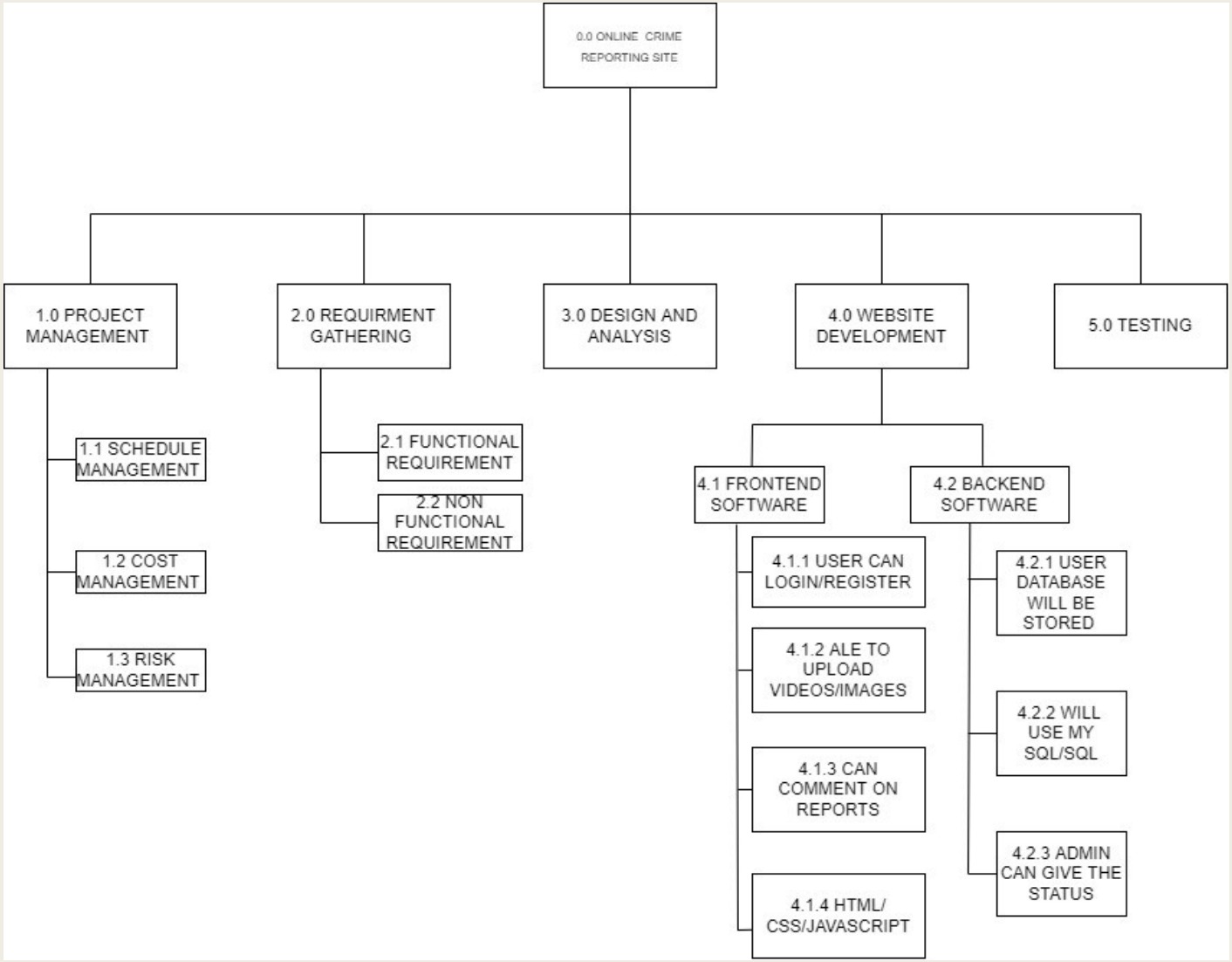
RESPONSIBILITY ASSIGNMENT MATRIX-

RACI Matrix	Team Members			
Activity	**DHRUVA(BA)**	**DHRUVA(Developer)**	**SAMPURNA (Project Manager)**	**SAMPURNA (Key Business User)**
User Requirement Documentation	A	A	C	C
Research	C	I	R	I
Coding	A	A	C	C
Design	A	A	A	R
Collection of data	R	R	I	C
Funding	I	I	R	R
User Friendly	R	R	R	R

A	Accountable
R	Responsible
C	Consult
I	Inform

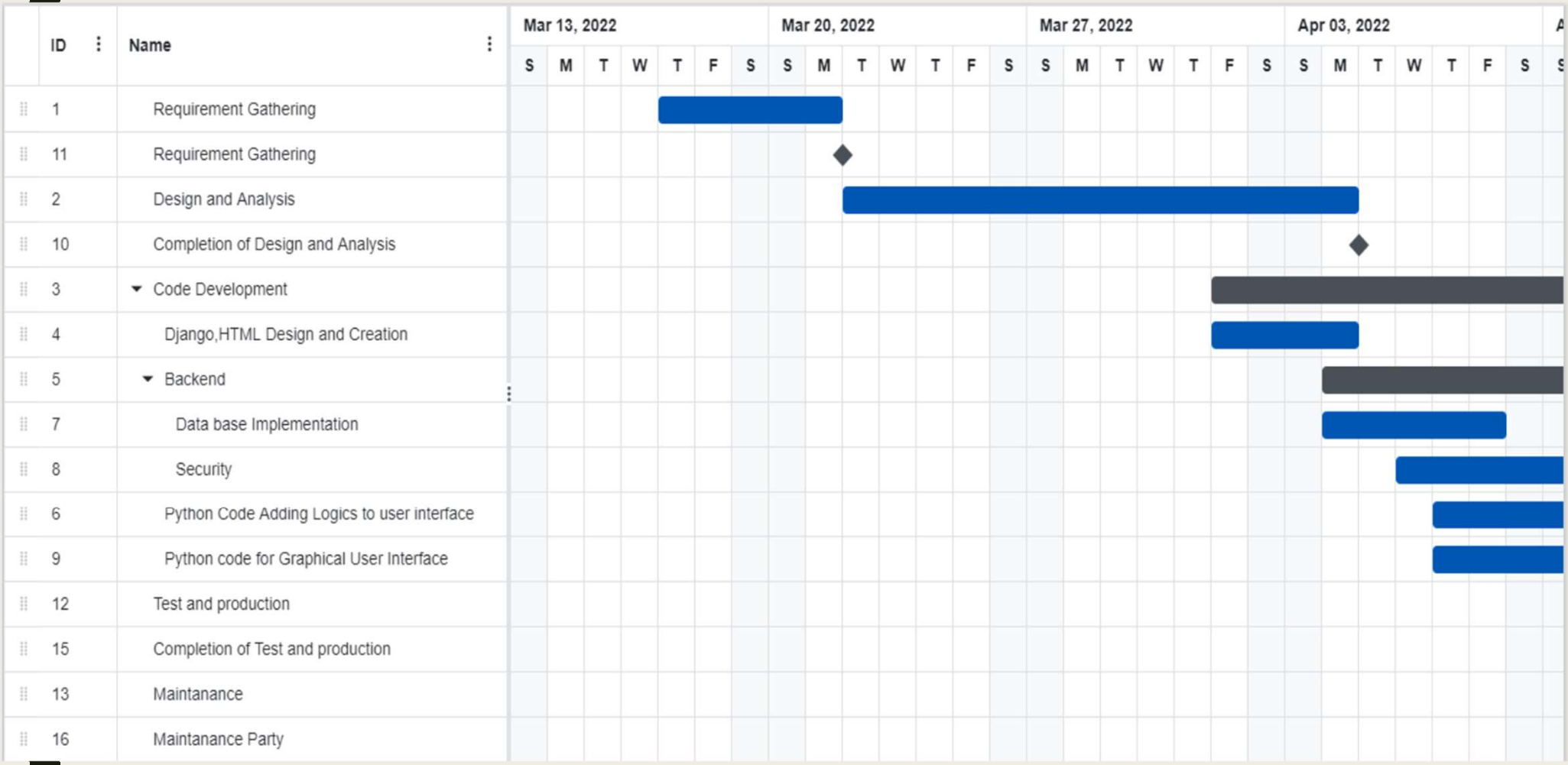
SESSION -5 WBS, GANTT CHART AND RISK ANALYSIS

WORK BREAKDOWN STRUCTURE -

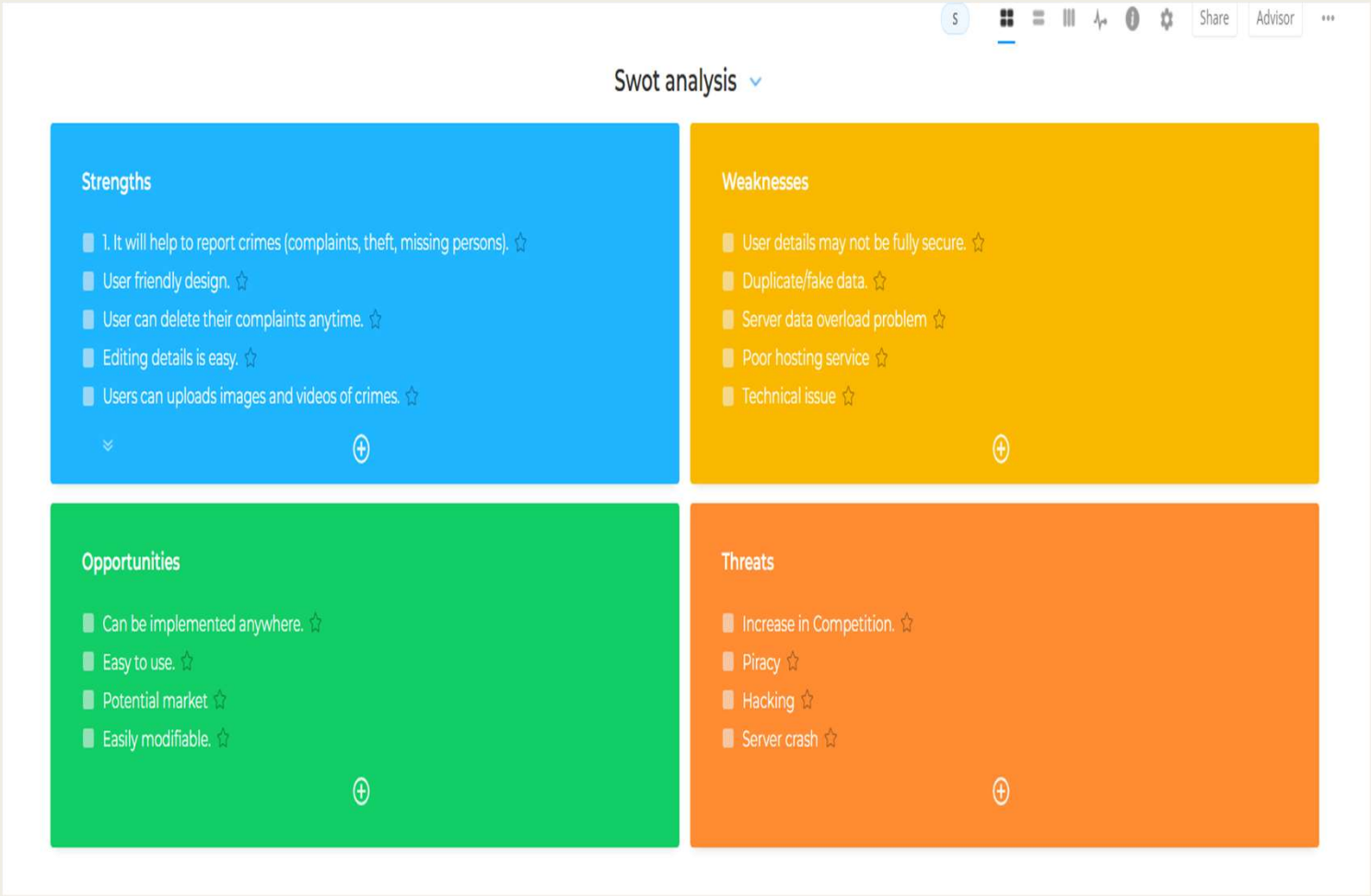


- 0.0 Online Crime Reporting Website
- 1.0 Project Management
  - 1.1 Schedule Management
  - 1.2 Cost Management
  - 1.3 Risk Management
- 2.0 Requirement Gathering
  - 2.1 Functional Requirement
  - 2.2 Non-Functional Requirement
- 3.0 Analysis & Design
- 4.0 Website Development
  - 4.1 HTML Design and Creation
    - 4.1.1 Database Implementation
    - 4.1.2 Graphic User interface
  - 4.2 Backend Software
    - 4.2.1 Database Implementation
    - 4.2.2 Middleware Development
    - 4.2.3 Security Subsystems
    - 4.2.4 Catalog Engine
    - 4.2.5 Transaction Processing

TIMELINE GANTT CHART-



SWOT ANALYSIS-



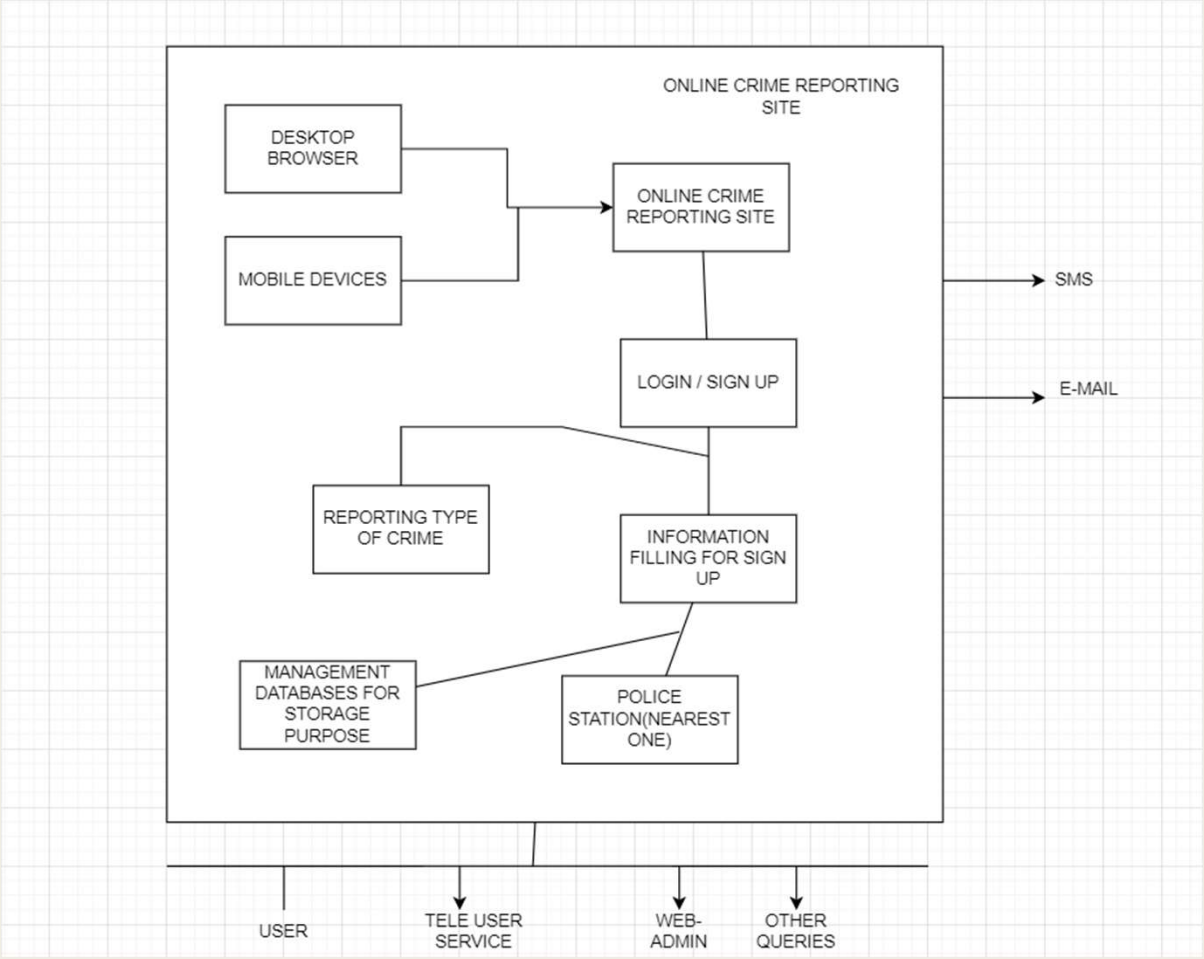
RISK MANAGEMENT AND MITIGATION-

RESPONSE	RISK FREQUENCY	RISK DESCRIPTION
Requirements	Frequency	If we need any new software while developing.
Schedule Risk	Likely	If the decided plan or goal is not completed on time.
Users	Occasionally	Occurs due to addition of fake details.
Technical Risk	Frequently	Incomplete requirement specification
Data Risk	Likely	Occurs due to lack of proper information.

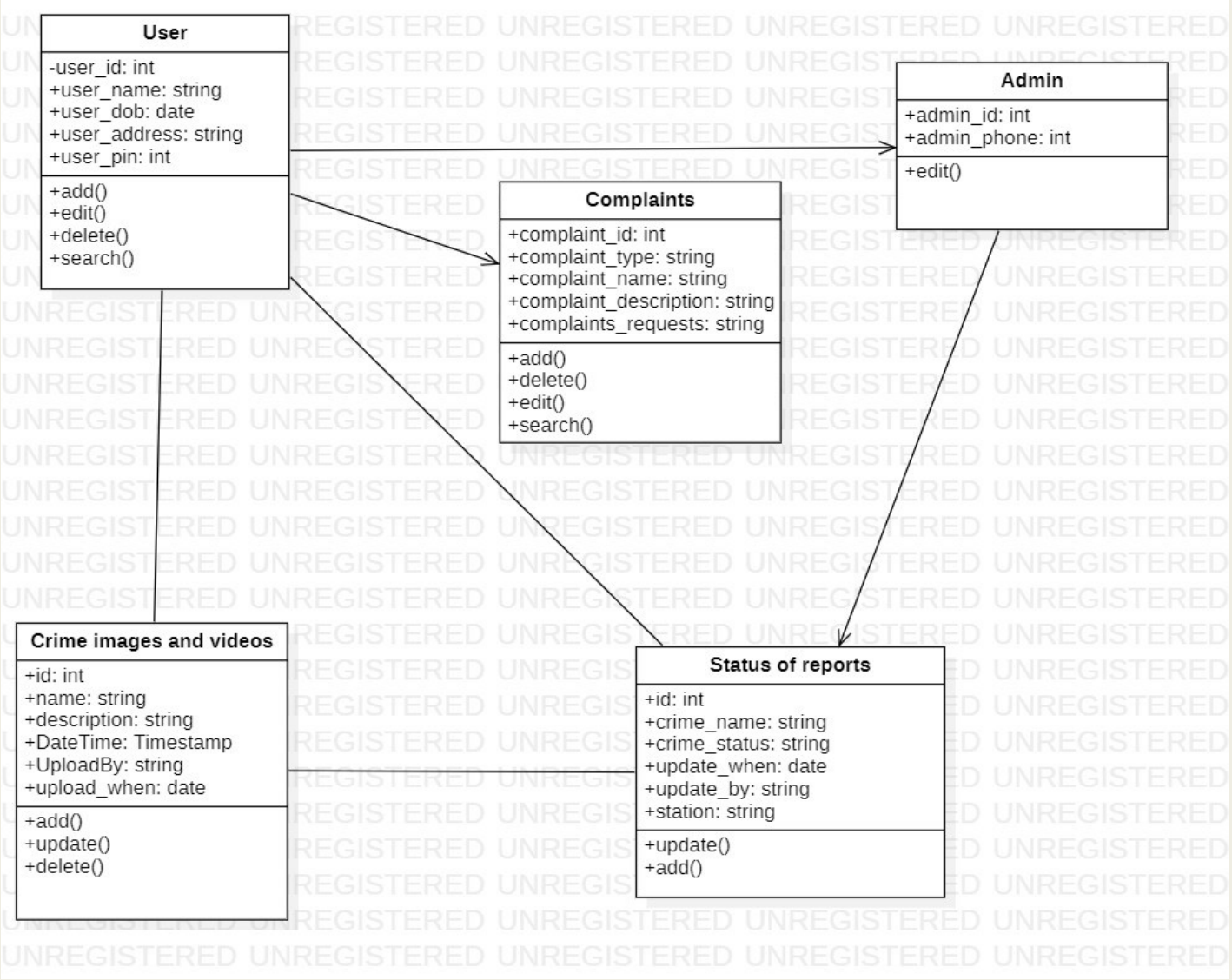
SESSION -6

SYSTEM ARCHITECTURE-

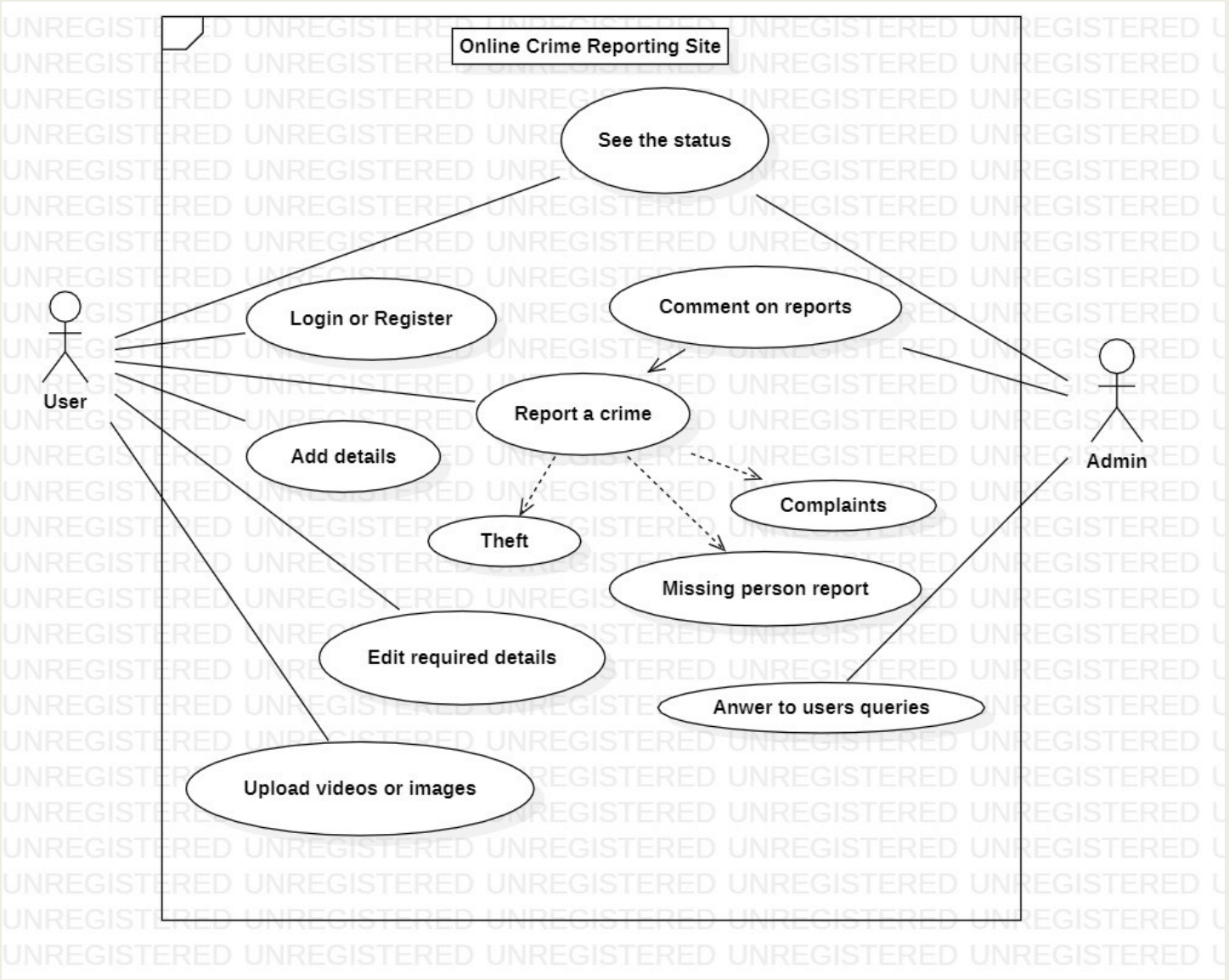
It's a detailed structure and behaviour of the system. We are using **SERVICE ARCHITECTURE DESIGN.**



CLASS DIAGRAM-

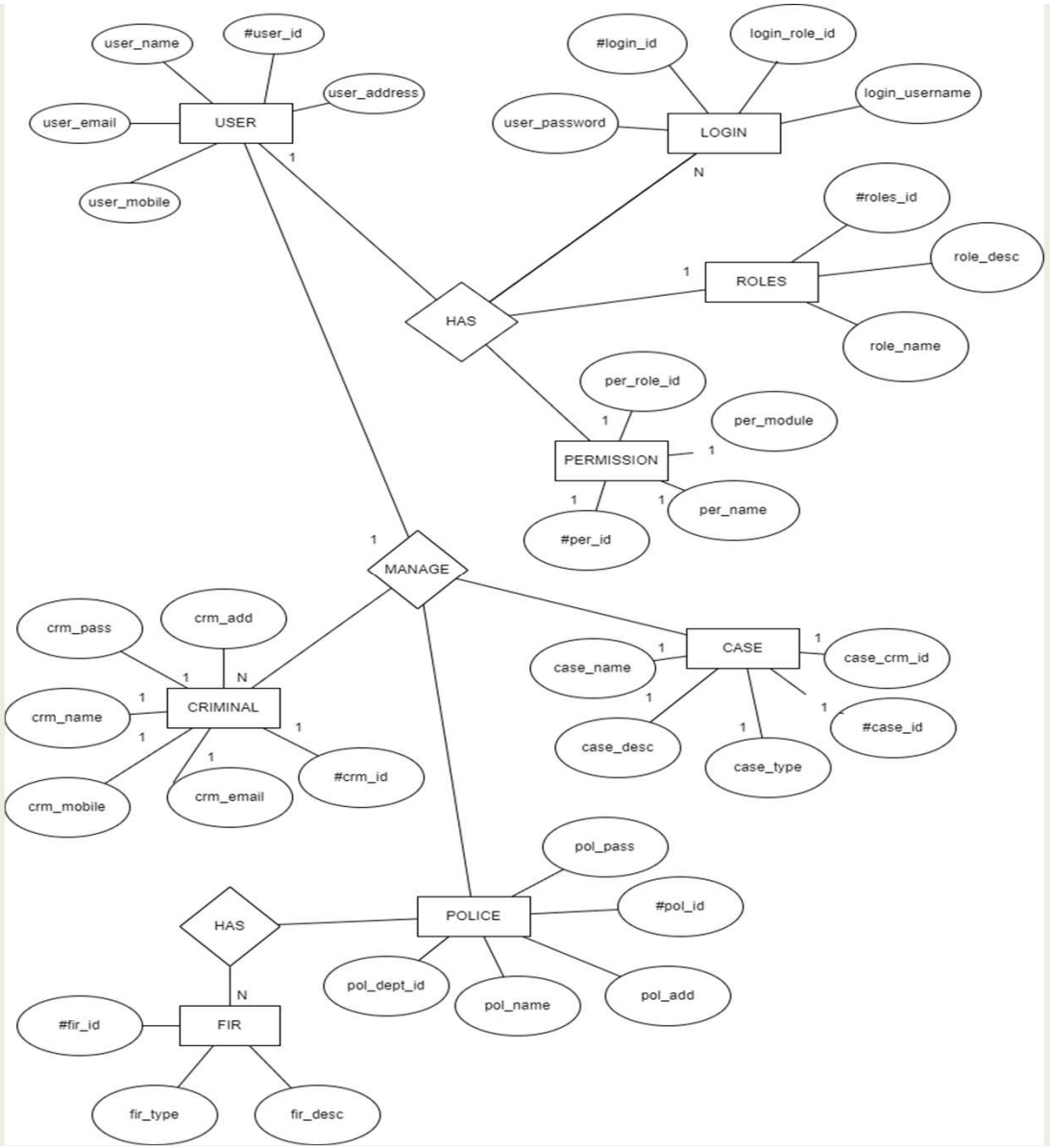


USE CASE DIAGRAM-



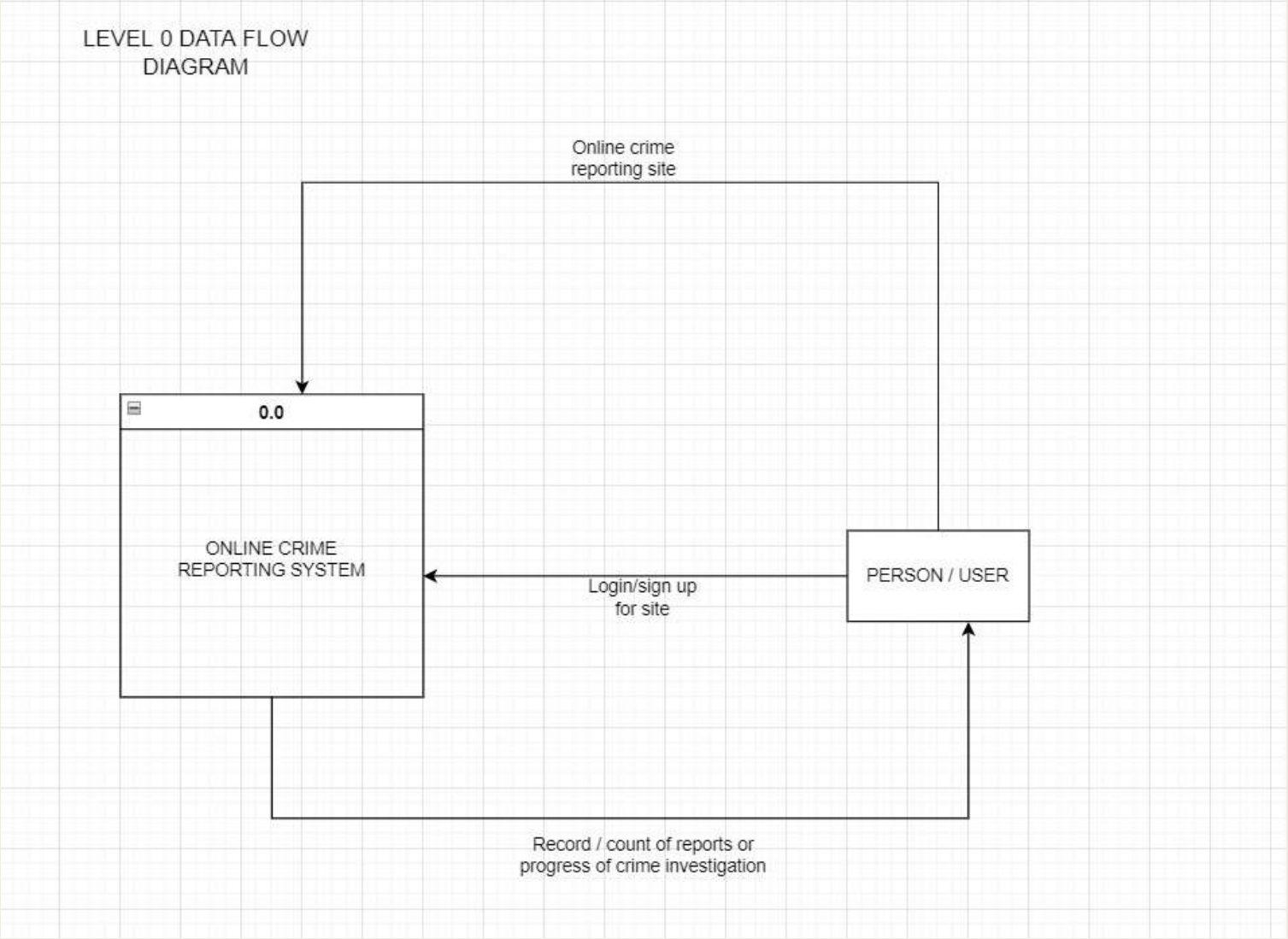
SESSION -7

ENTITY-RELATIONSHIP DIAGRAM

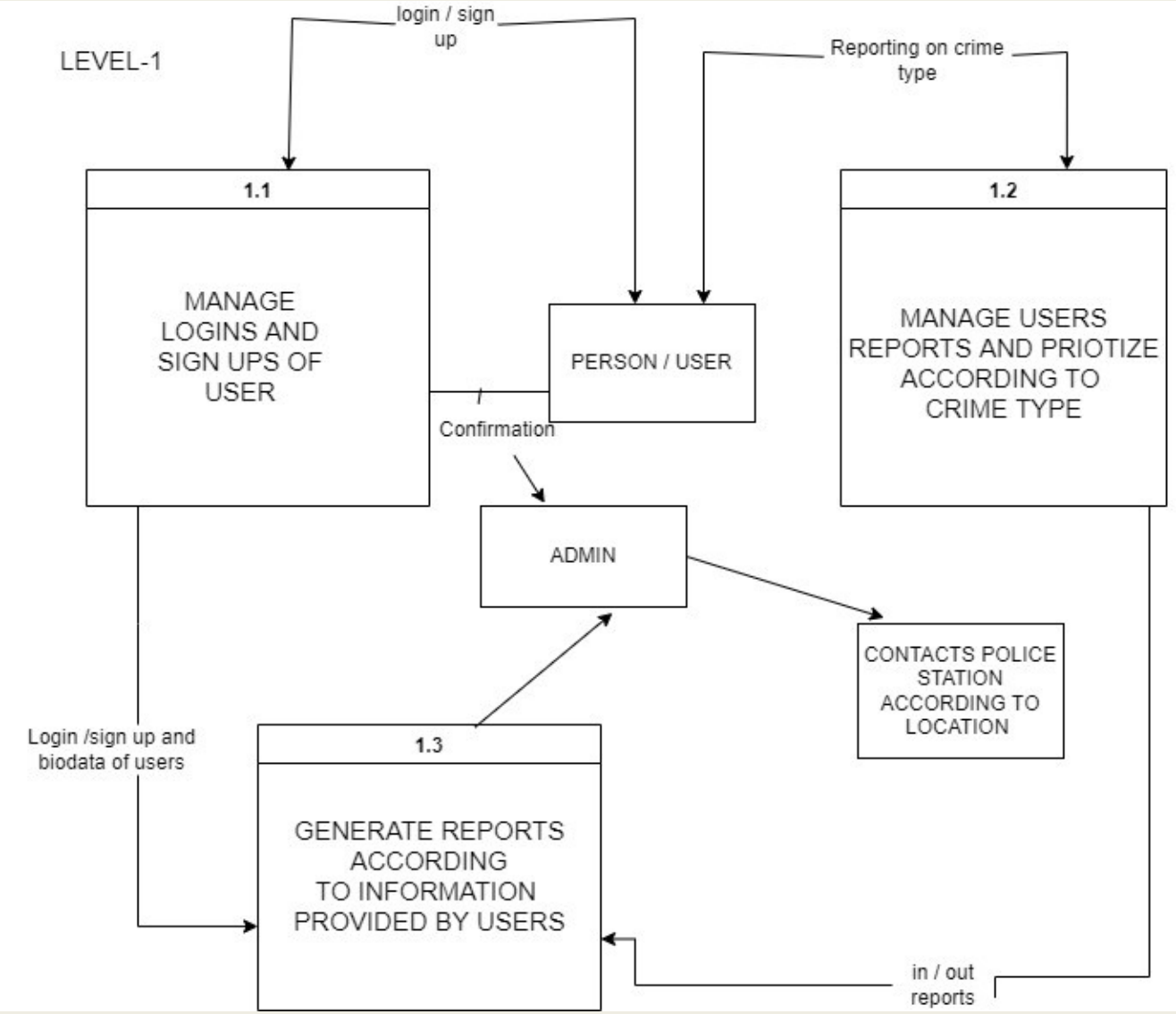


SESSION-8 DATA FLOW DIAGRAM

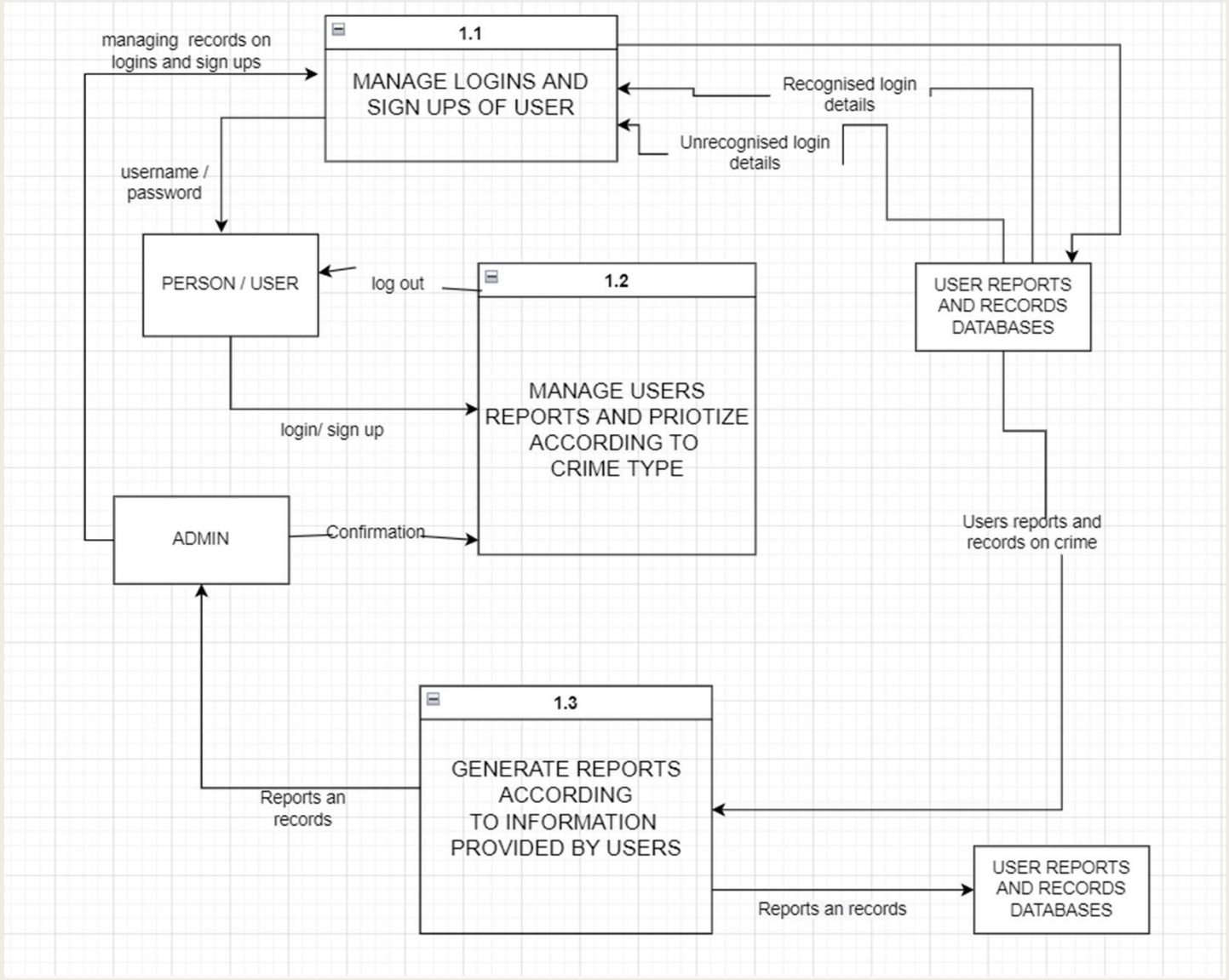
LEVEL-0 DIAGRAM-



LEVEL-1
DIAGRAM-

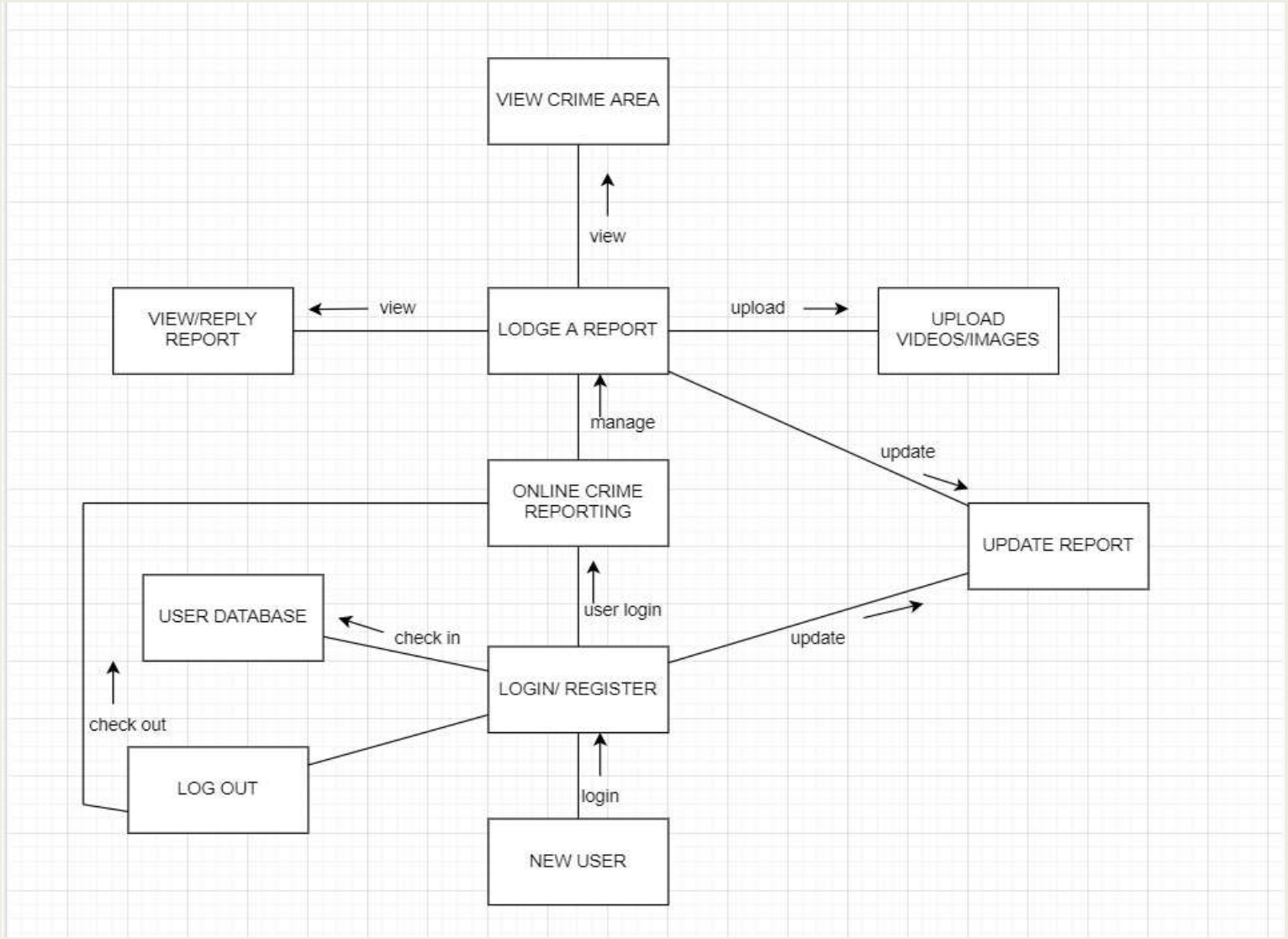


LEVEL-2 DIAGRAM-

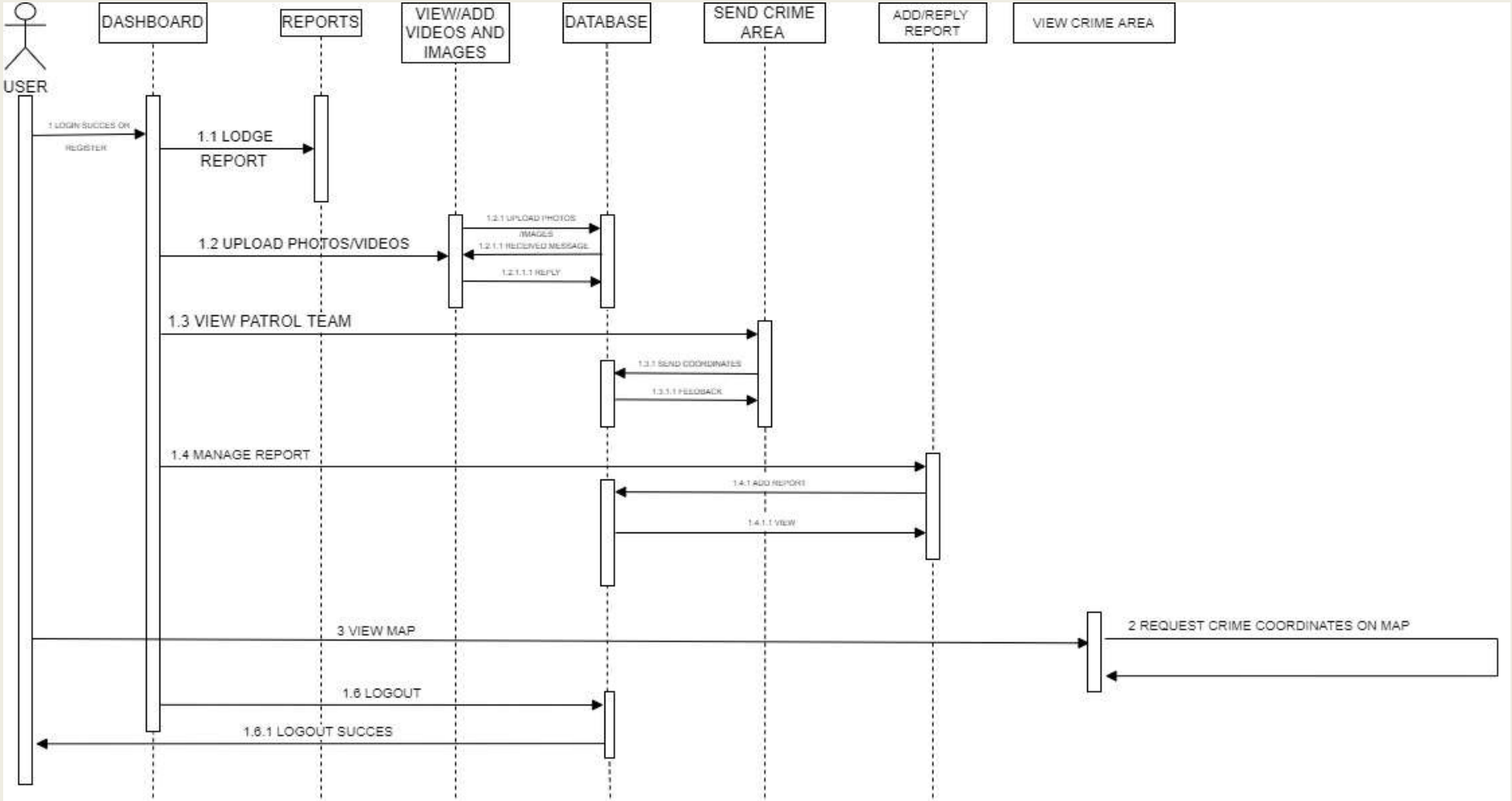


SESSION-9 COLLABORATION AND SEQUENCE DIAGRAM

COLLABORATION DIAGRAM-



SEQUENCE DIAGRAM-



SESSION-10 DEVELOP A TESTING FRAMEWORK/USER INTERFACE

EXECUTIVE SUMMARY-

Our project is crime reporting site where an user can report crimes and can upload videos and photos for the same. The scope of the project is high since its simple and done in an easy format.

Website is attractive and easy to use. Our site consists of login page, registration page and a home page for uploading all the documents.

TEST PLAN-

SCOPE OF TESTING

The test plan can start with the :

1. GUI Testing
2. Complexity testing
3. Storage testing
4. Data Flow test

FUNCTIONAL :

1. Accuracy
2. Format
3. Analyse
4. Storage

NON FUNCTIONAL :

1. Security
2. Maintainability
3. User accessibility
4. Availability

TYPES OF TESTING, METHODOLOGY, TOOLS -

Category	Methodology	Tools Required
Functional Requirements	Manual	Unit testing tool, android testing tool, test management tool
Non-functional Requirements	Agile	GUI testing tool, security testing tool, performance testing tool

SESSION-11
TEST CASES

FUNCTIONAL TEST CASES -

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1.	Accuracy	Check the accuracy of the model trained.	1. Training the model 2. Testing 3. Deploying	The website should work properly	Website is working properly	Pass	success
2.	Verify if the code is getting formatted	Write the source code file	1.Commit code to GitHub repo. 2.Run prolifier actions.	1.Github bot is a king commit into repo after formatting the code.	GitHub bot making commit into repo after formatting the code.	pass	success
3.	Analyse	Analyse the working of the website	1.Check the code. 2.Execute it. 3.Analyse if it's working properly or not.	1.Code should run properly. 2. Users should be satisfied.	Code is properly analysed and its running successfully.	pass	success
4.	Storage	Check the storage of the device.	Check the storage of the device	Storage is present in the respected device.	Storage check done successfully.	pass	success

NON- FUNCTIONAL TEST CASES -

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
1.	Security	Database security and maintability.	Users details must be encrypted so that hackers can't access.	The information must not be accessed by unknowns.	The information is secure.	pass	success
2.	Maintability	Maintenance of data.	User details should be maintained properly.	The details of the user who reported about should be identified.	The details of the users who lodge crime should be maintained properly.	pass	Success
3.	User accessibility	Easy formatting of the code.	1.Commit code. 2.Run action 3.Pull formatted code.	User should be able to get formatted code with ease.	User should be able to get formatted code with ease.	pass	Success
4.	Availability	Available on any browser.	1.Open any browser. 2.Type site address on bar. 3.Open the site.	User should be able to open site on any browser on any device.	User should be able to open site on any browser on any device.	pass	success

SESSION-12 MANUAL TEST CASE REPORTING

CURRENT STATE OF TESTING -

After the development, serve of tests were conducted on the performance of the algorithm. The test conducted were both functional and non-functional. Functional test includes testing of Database Storing, Front-end, Back-End, Site Login and Reporting and repository code file.

Nonfunctional requirements like performance testing, speed and efficiency were also conducted.

PRESENT OBSTACLES-

Current obstacles include:

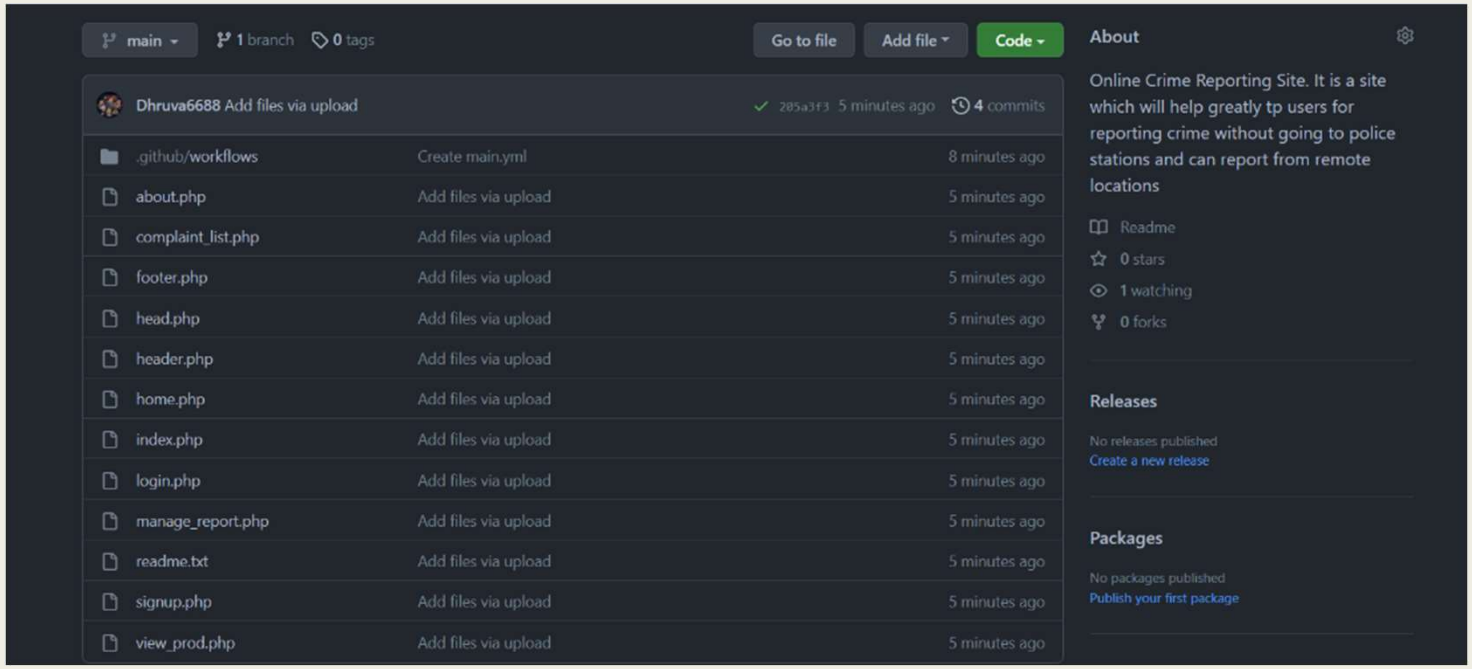
- Increasing the code efficiency of the algorithm.
- Increasing the speed of the algorithm.

Category	Progress Against Plan	Status
Functional Testing	Green / Amber / Red	Not-Started / In-Progress / Completed
1) Database Storing	green	completed
2) Front-End	green	completed
3) Back-End	green	completed
4) Site Login and Reporting	green	completed
Non-Functional Testing		
1) Performance	green	completed
2) speed	green	completed

Functional	Test Case Coverage (%)	Status
Module ID	30%	Not-Started / In-Progress / Completed
Module 1(UGrl shortner)	100%	completed
Module 2(Harvi)	100%	completed

SESSION – 13 Provide the details of Architecture Design/Framework/Implementation

Folder Architecture:



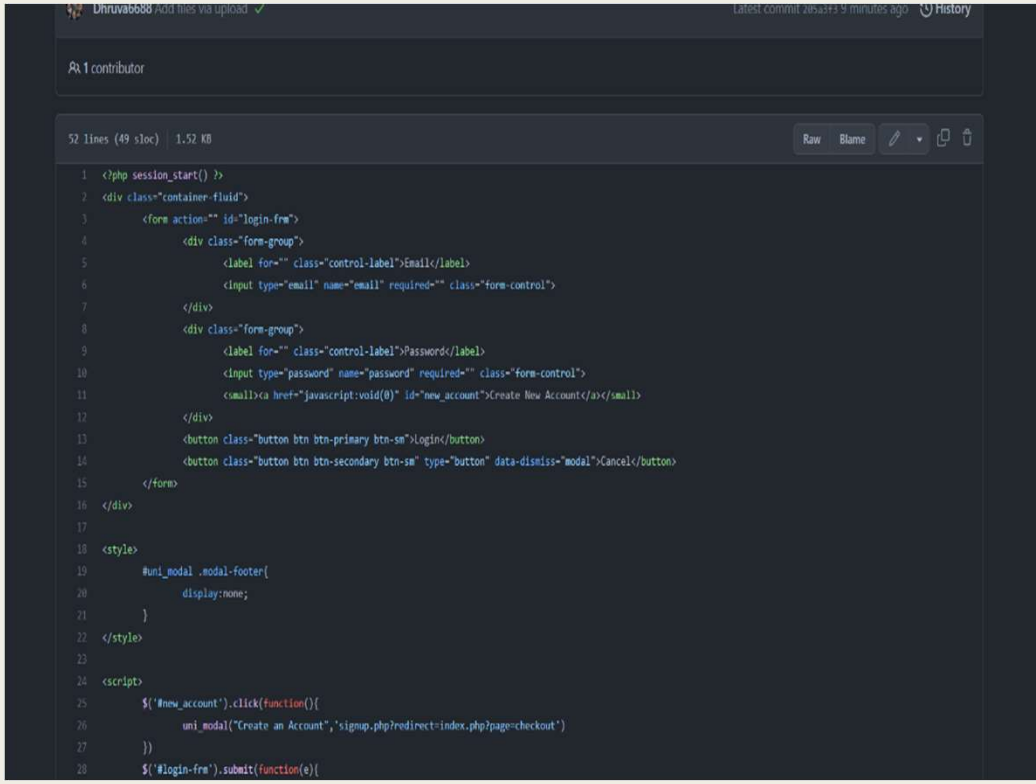
Source code:

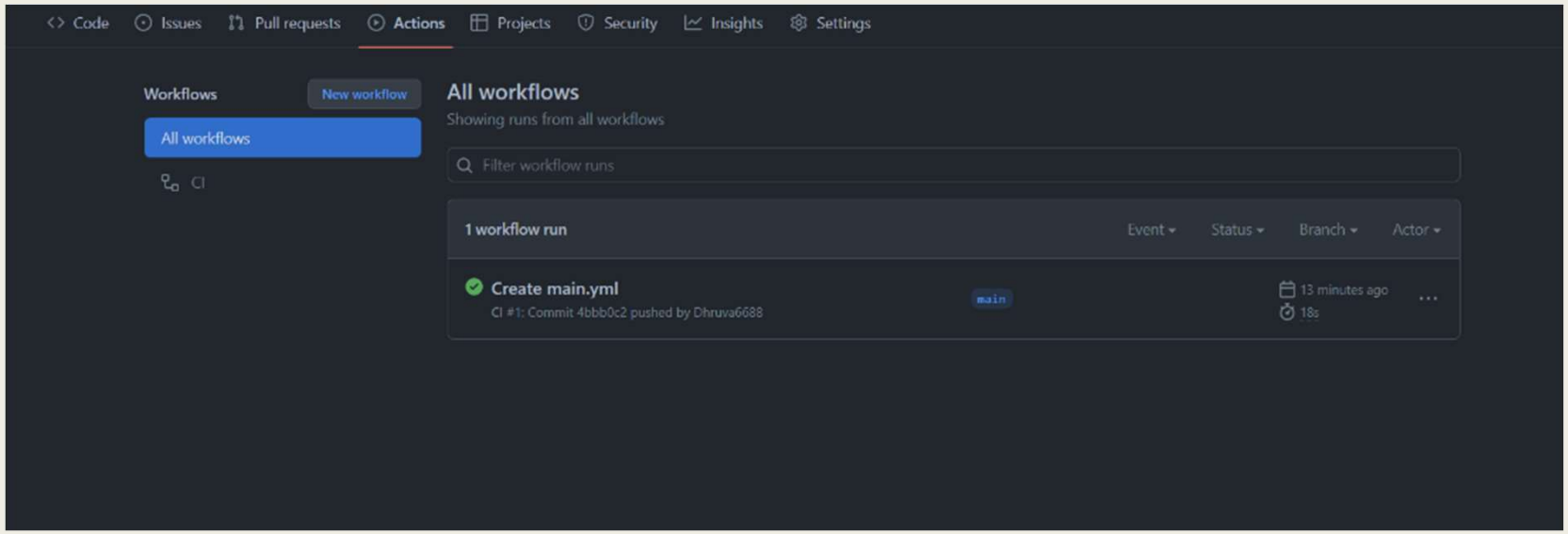
For Database:

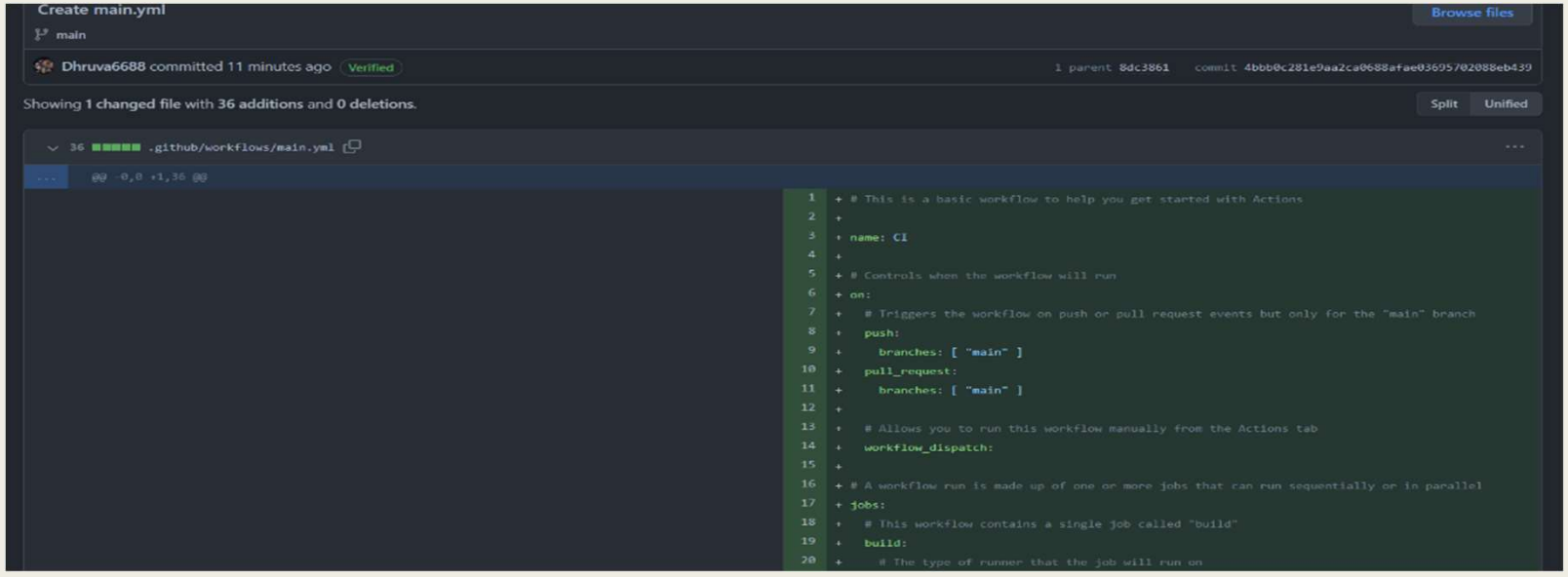
```
-- phpMyAdmin SQL Dump
-- version 5.0.1
-- https://www.phpmyadmin.net/
--
-- Host: 127.0.0.1
-- Generation Time: Oct 30, 2020 at 12:36 PM
-- Server version: 10.4.11-MariaDB
-- PHP Version: 7.2.28

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: `crms_db`
--

-- --------------------------------------------------------

--
-- Table structure for table `complainants`
--

CREATE TABLE `complainants` (
  `id` int(30) NOT NULL,
  `name` varchar(200) NOT NULL,
  `address` text NOT NULL,
  `contact` varchar(100) NOT NULL,
  `status` tinyint(1) NOT NULL DEFAULT 0 COMMENT '0=unverified,1=verified',
  `email` varchar(200) NOT NULL,
  `password` text NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4;

--
```

For Site Making:

```php
<?php session_start() ?>
<div class="container-fluid">
    <form action="" id="login-frm">
        <div class="form-group">
            <label for="" class="control-label">Email</label>
            <input type="email" name="email" required="" class="form-control">
        </div>
        <div class="form-group">
            <label for="" class="control-label">Password</label>
            <input type="password" name="password" required="" class="form-control">
            <small><a href="javascript:void(0)" id="new_account">Create New Account</a></small>
        </div>
        <button class="button btn btn-primary btn-sm">Login</button>
        <button class="button btn btn-secondary btn-sm" type="button" data-dismiss="modal">Cancel</button>
    </form>
</div>

<style>
    #uni_modal .modal-footer{
        display:none;
    }
</style>

<script>
    $('#new_account').click(function(){
        uni_modal("Create an Account",'signup.php?redirect=index.php?page=checkout')
    })
    $('#login-frm').submit(function(e){
        e.preventDefault()
        start_load()
        if($(this).find('.alert-danger').length > 0 )
            $(this).find('.alert-danger').remove();
        $.ajax({
            url:'admin/ajax.php?action=login2',
            method:'POST',
            data:$(this).serialize(),
            error:err=>{
                console.log(err)
        end_load()

            },
```




Code
Issues
Pull requests
Actions
Projects
Security
Insights
Settings
Workflows
New workflow
All workflows
CI
All workflows
Showing runs from all workflows
Filter workflow runs
1 workflow run
Event
Status
Branch
Actor
Create main.yml
CI #1: Commit 4bbb0c2 pushed by Dhruva6688
main
13 minutes ago
18s


Create main.yml
main
Browse files
Dhruva6688 committed 11 minutes ago
Verified
1 parent 8dc3861
commit 4bbb0c281e9aa2ca0688afae036957020088eb439
Showing 1 changed file with 36 additions and 0 deletions.
Split
Unified
36 .github/workflows/main.yml
@@ -0,0 +1,36 @@
+ # This is a basic workflow to help you get started with Actions
+
+ name: CI
+
+ # Controls when the workflow will run
+ on:
+   # Triggers the workflow on push or pull request events but only for the "main" branch
+   push:
+   branches: ["main"]
+   pull_request:
+   branches: ["main"]
+
+   # Allows you to run this workflow manually from the Actions tab
+   workflow_dispatch:
+
+ # A workflow run is made up of one or more jobs that can run sequentially or in parallel
+ jobs:
+   # This workflow contains a single job called "build"
+   build:
+   # The type of runner that the job will run on

THANK YOU !