# PUBLIC COMPLAINT SORTING USING BLOCKCHAIN

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# INTRODUCTION

- This Project is used to resolve problem in less time and to keep track on all process which will going on after registering particular complaints . Municipal authorities and users both will get notifications from each other . To develop this system , we use image processing .
- System is providing platform for citizens where they can report problems, share ideas and suggestions . It will be helpful to collect valuable source as feedback from citizens . It will be helpful to resolve posted problems in limited time .
- The main purpose of the system to resolve problem in less time and to keep track on all process which will going on after registering particular complaints . Municipal authorities and users both will get notifications from each other .

# MODULES

## 1. ADMIN

- Admin can view users .
- They can add & manage department .
- They can add & manage officers .
- They can view feedback given by the users .
- They can view department wise complaints given by the users but they can’t replay to the complaints .
- Taking actions against officers these who don’t respond the complaints .
- View officer rating .

# 2 . OFFICER

- The officer will be added directly by the admin .
- The officer who can view the complaints given by the users and can replay for the complaints .
- Officer can change their password also .
- Update info to block chain .
- View officer rating .

# 3. USER

- Users can register by themselves .
- They can send complaints & view the respective department .
- Send feedback .
- View complaints status .
- View officer rating .

# METHODOLOGY

## BLOCK CHAIN

Block chain is a system of recording information in a way that makes it difficult or impossible to change , hack or cheat he system . All the complaints and information is stored in block chain . Block chain is a record keeping technology designed to make it impossible to hack the system or forge the data stored on it , thereby making it secure and immutable .

# CONFIGURATION OF BLOCKCHAIN

- Truffle
- Truffle is the most developing tooling for Ethereum programmers . Easily deploy smart contracts and communicate with their underlying state without heavy client side programming . An especially useful library for the testing and iteration of Ethereum smart contracts .
- It is used to create configuration files and complete block chain .
- First install node to create files for block chain automatically . Through this create contract that contain sol files . Sol files contain the information that we want to pass into the block chain . This concept is called Smart Contracting .

- Ganache

  Ganache is a high-end development tool used to run your own local block chain . It act as a server to see the info that pass to the block chain .

## OPINION MINING

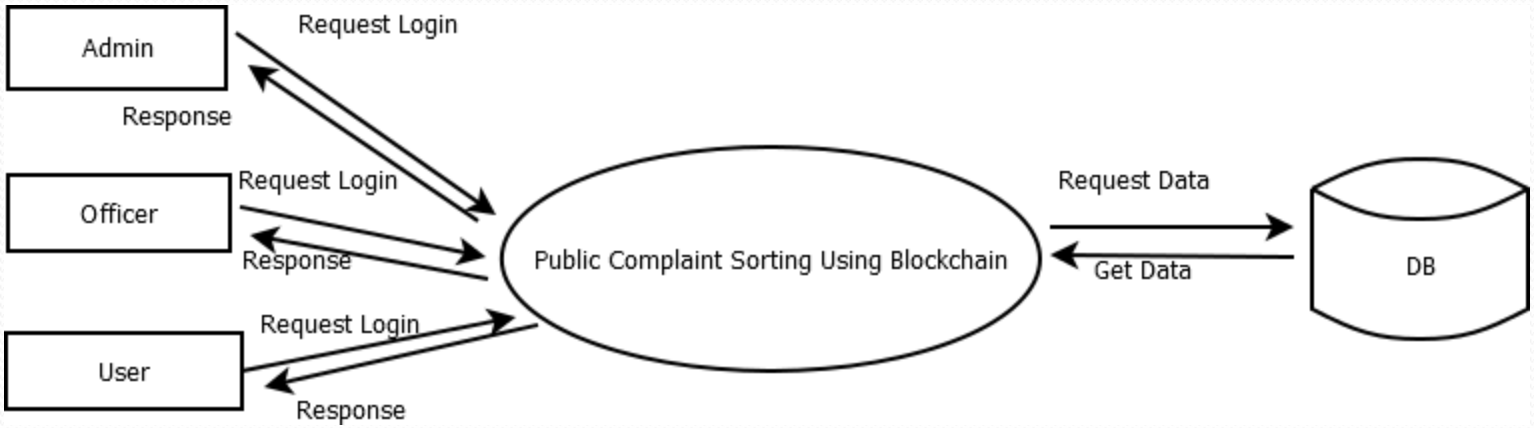
This is a popular way for organizations to determine and categorize opinions about a product , service ,or idea . It involves the use of data mining . In a way that identifies opinions about each department or staff become data mining included opinion mining .

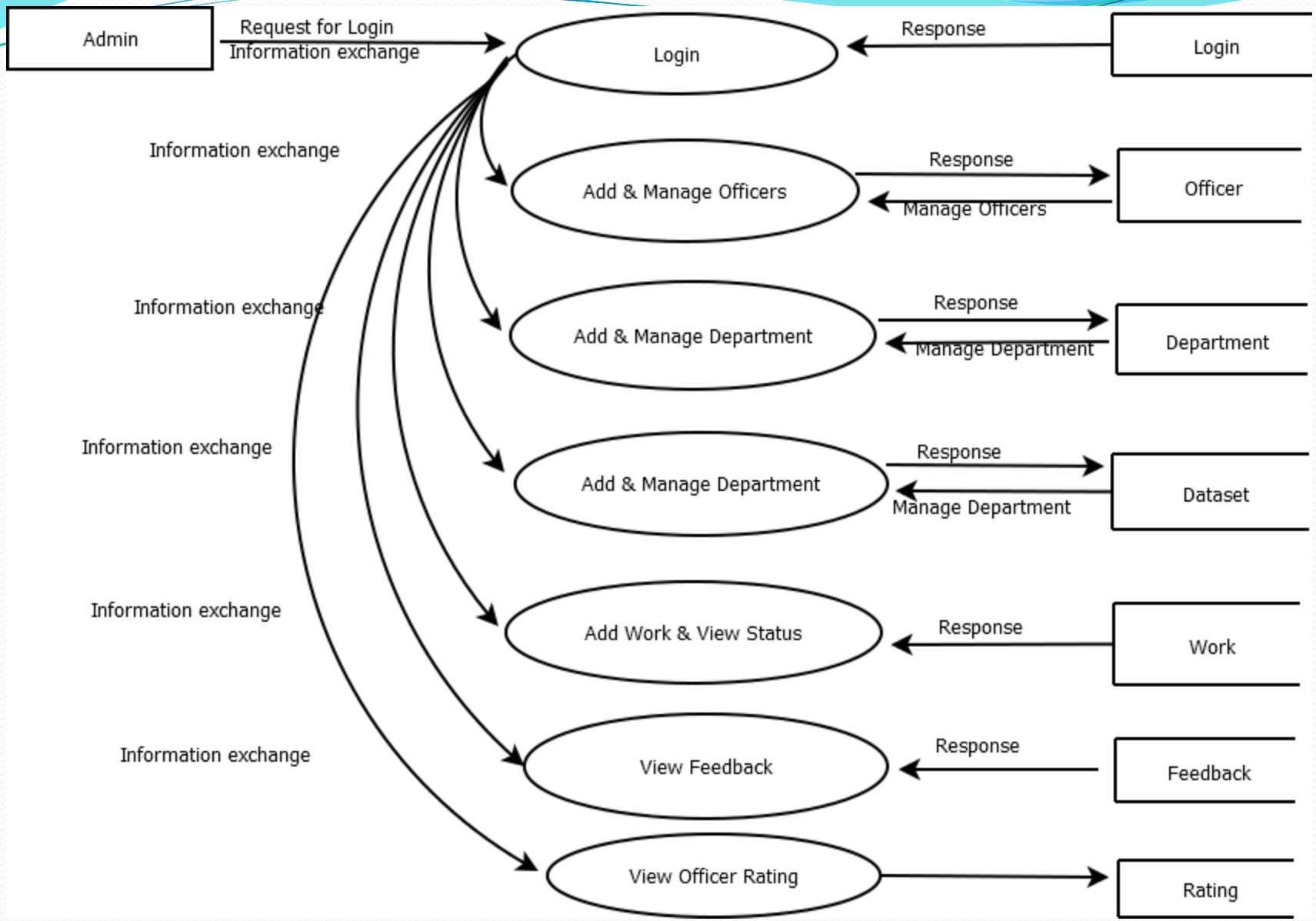
- SENTIMENT ANALYSIS

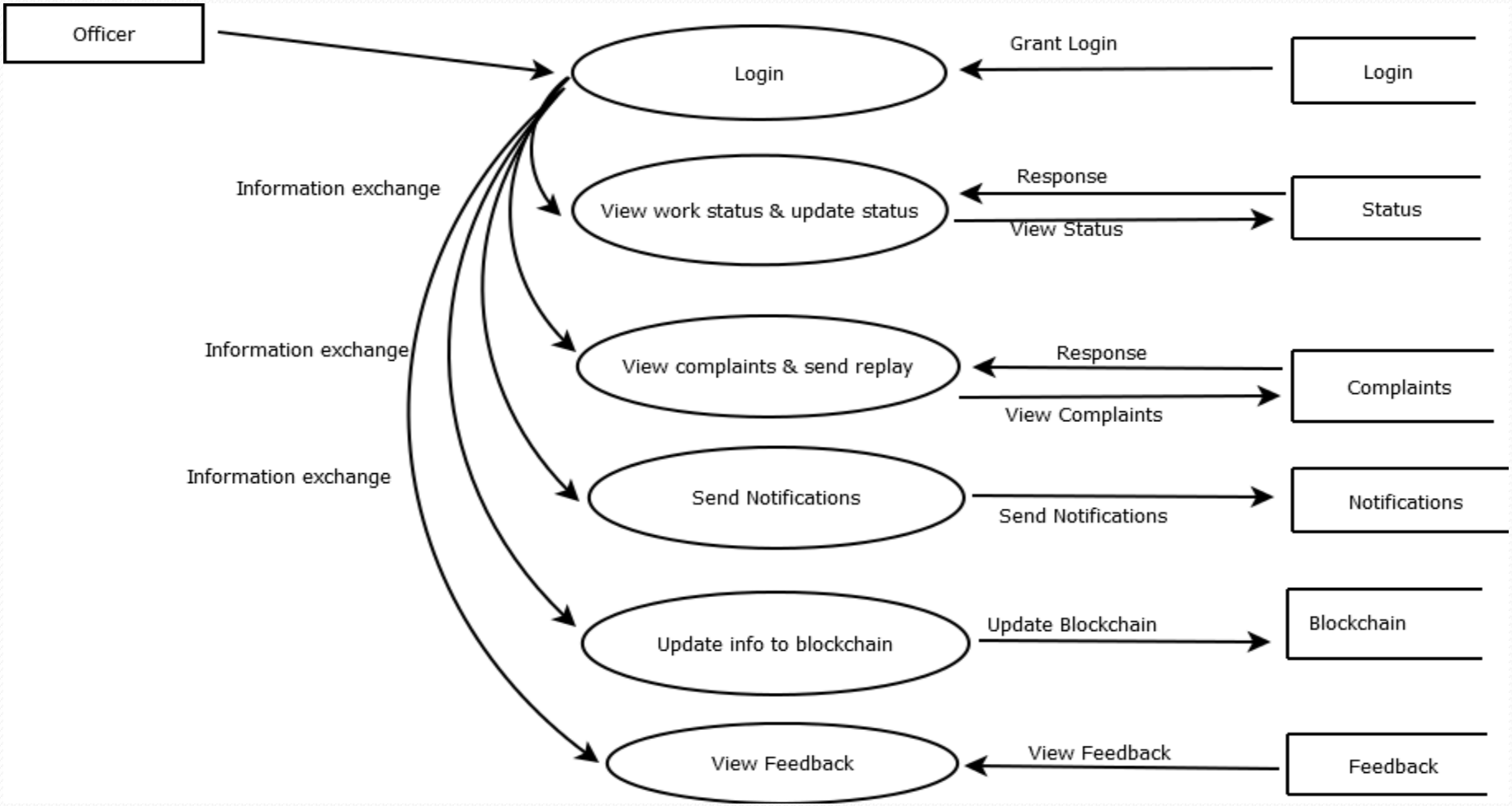
  Sentiment analysis is used to determine whether a given text contains negative , positive or neutral emotions . It’s a form of text analytics that uses natural language processing (NLP) and machine learning . Sentiment analysis also known as “Opinion mining” or “Emotion artificial intelligence” .

# DATA FLOW DIAGRAM

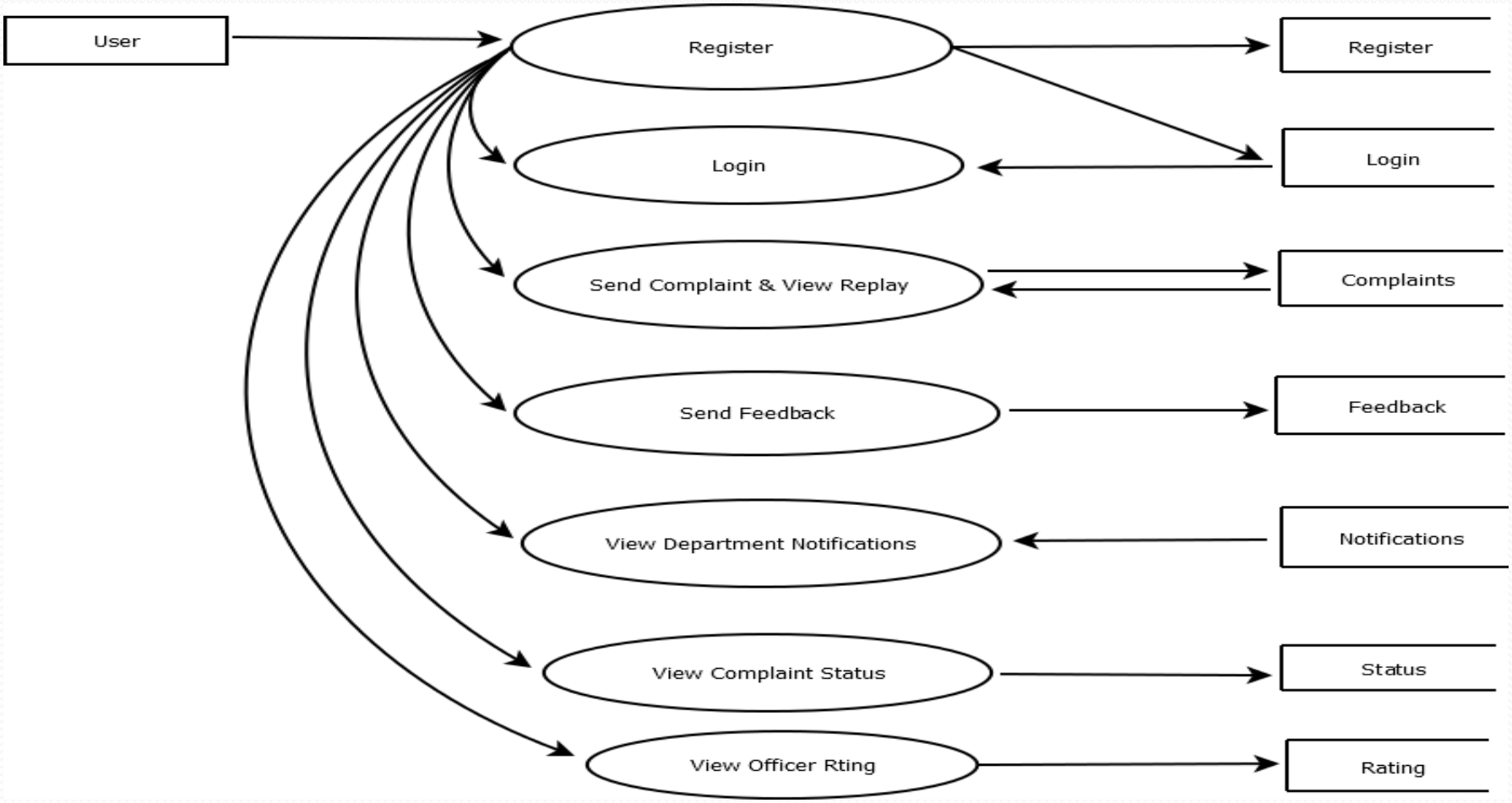
LEVEL 0




Admin
Request for Login
Information exchange
Login
Response
Login
Information exchange
Add & Manage Officers
Response
Manage Officers
Officer
Information exchange
Add & Manage Department
Response
Manage Department
Department
Information exchange
Add & Manage Department
Response
Manage Department
Dataset
Information exchange
Add Work & View Status
Response
Work
Information exchange
View Feedback
Response
Feedback
View Officer Rating
Rating

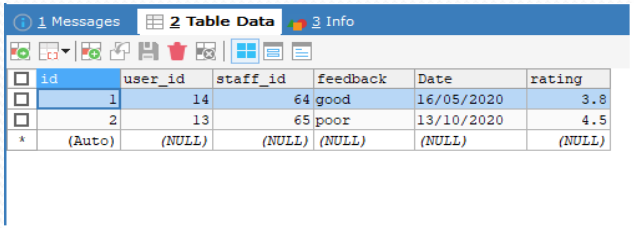

Officer
Login
Grant Login
Login
Information exchange
View work status & update status
Response
View Status
Status
Information exchange
View complaints & send replay
Response
View Complaints
Complaints
Information exchange
Send Notifications
Send Notifications
Notifications
Update info to blockchain
Update Blockchain
Blockchain
View Feedback
View Feedback
Feedback

# LEVEL 3


User
Register
Login
Send Complaint & View Replay
Send Feedback
View Department Notifications
View Complaint Status
View Officer Rting
Register
Login
Complaints
Feedback
Notifications
Status
Rating

# TABLE DESIGN

Staff_Feedback



1 Messages | 2 Table Data | 3 Info

| id | user_id | staff_id | feedback | Date | rating |
|---|---|---|---|---|---|
| 1 | 14 | 64 | good | 16/05/2020 | 3.8 |
| 2 | 13 | 65 | poor | 13/10/2020 | 4.5 |
| * | (Auto) | (NULL) | (NULL) | (NULL) | (NULL) | (NULL) |

# DEVELOPING ENVIORNMENT

## SOFTWARE REQUIRMENTS

- Operating System : WINDOWS 10
- Front end : HTML,CSS,JAVASCRIPT
- IDE Used : Jetbrains Pycharm , Android Studio
- Technology Used : Python Java
- Frame work used : Flask

# PRODUCT BACKLOG

| User Story ID | Priority (H/M/L) | Size(Hours) | **Sprint <#>** | **Status(planned/progress/ completed)** | Release Date | Release Goal |
|---|---|---|---|---|---|---|
| 1 | Medium | 8 | 1 | Completed | 1/5/22 | Staff feedbck table designing |
| 2 | High | 10 | 2 | Completed | 15/5/22 | Staff_feedback form designing |
| 3 | High | 6 | 3 | Completed | 28/5/22 | Blockchain management |
| 3 | Medium | 5 | 4 | Completed | 1/6/22 | Blockchain implementation |
| 4 | High | 5 | | | | |

# USER STORY

| User Story ID | As a <type of user> | I Want to | So that I can |
|---|---|---|---|
| 1 | Admin | Rating | View officer rating |
| 2 | Officer | Feedback | View feedback |
| | | Block chain | Update info to bock chain |
| 3 | Users | Status | View complaint status |
| | | Rating | View officer rating |

# PROJECT PLAN

| User story ID | Task Name | Start Date | End Date | Days | Status |
|---|---|---|---|---|---|
| 1 | Sprint 1 | 20/04/2022 | 1/05/2022 | 18 | Completed |
| 2 | | 4/05/2022 | 15/05/2022 | 18 | Completed |
| 3 | Sprint 2 | 17/05/2022 | 28/05/2022 | 11 | Completed |
| 4 | | 29/05/2022 | 1/06/2022 | 11 | Completed |
| 5 | Sprint 3 | 2/06/2022 | 5/06/2022 | 5 | Completed |
| 6 | Sprint 4 | | | | In progress |
| 7 | Sprint 5 | | | | Planned |

# SPRINT BACKLOG

| Back log item | Status & completion Date | Original Estimation Hours | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| User Story #1,#2 | | | Hrs | Hrs | Hrs | Hrs | Hrs | Hrs | Hrs | Hrs | Hrs | Hrs | Hrs | Hrs |
| Table Design | 1/05/22 | 8 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Form Design | 15/05/22 | 9 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| Basic Coding | 15/5/22 | 10 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 0 |
| User story #3,#4 | | | | | | | | | | | | | | |
| Block chain mana | 28/5/22 | 6 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

# SPRINT ACTUAL

| Back log item | Status & completion Date | Original Estimation Hours | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 | Day 6 | Day 7 | Day 8 | Day 9 | Day 10 | Day 11 | Day 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| User Story #1,#2 | | | | | | | | | | | | | | |
| Table Design | 1/5/22 | 9 | 1 | 1 | 1 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 |
| Form Design | 15/5/22 | 9 | 1 | 1 | 2 | o | o | 1 | 2 | 0 | 0 | 0 | 0 | 0 |
| Basic Coding | 15/5/22 | 10 | 1 | 3 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 0 |
| User story #3,#4 | | | | | | | | | | | | | | |
| Block chaim Mana | 28/5/22 | 6 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

# THANK YOU……