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**CEN302 – Software Engineering**

# **State Police System Requirements Specification**

**Version 3.0**

**June 07, 2019**

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# **1. Executive Summary**

## **1.1 Project Overview**

Nowadays, we are in the digitalization era. Everything is being processed online. It is faster, better and safer. Unfortunately for Albanian institutions which require a lot of paperwork, we are still behind in this process. The whole process of assigning tasks, searching information, keep tracking of user locations, checking reports and sending reports is done manually in one of the main institutions of our country, such as the State Police. Here comes into play the State Police System, the software we are providing that aims to ease the State Police daily tasks.

Since the State Police is a very important institution, this software will try to digitalize every step of the police work and implement some new features that will come to help.

## **1.2 Purpose and Scope of this Specification**

The purpose of this software is to create a system that will help the State Police in their daily work. In the current state, the State Police does most of their work using paperwork and there is not an existing and functional online system which helps them manage, update, upload and check this paperwork. Also, the existing online system needs several improvements, which will be implemented in our online system regarding the daily tasks and services. The main goal is to ease the processes and works of the state police in such a way that both the police employees and users(citizens) will solve their issues and problems without having to wait for a long time.

# **2. Product / Service Description**

Nowadays the police online system has some problems and missing services without whom the employees and citizens face difficulties during the processes. Also, the digitalization and development of technology is something that our country has been going through the past years and therefore everything should be done without difficulties online.

## **2.1 Product Context**

The context of this software is related to State Police of the government of Albania, even though our scope is to provide a solution for every law enforcing institution. This solution will be used by every employee of the police and by the internal affairs department in order to enhance their cooperation, make their jobs easier and make sure they make a full use of their time and energy, but also improve the efficiency, safety and correctness in work.

## 2.2 User Characteristics

There are five user groups that will take advantage and use the software:

- Normal citizen
  - Police Employee
  - Police Officer
  - Police Chief
  - Internal Affair Officer
- a) Normal citizen

These users will not be logged in. They can access the client-side part of the web application. They can file a complaint, find the nearest police patrol, use the police services and read about the police latest news. They don't have an impact on the internal system, but their complaints and requests will be handled by the State Police System.

- b) Police Employee

These users are the majority of system. They can login in the State Police website with their email.

They will have their own dashboard where they can take tasks such as investigations, duties, filing reports and sending reports to prosecutors. They will be the ones to accomplish the tasks. They can take part in an investigation, file a report, search in the

database, update the profile of a convicted person, add new tickets, handle complaints and report to their leader.

c) Police Officer

These users will have a higher responsibility than the previous ones. They will have a different dashboard than the police employees since they have the ability to access every police section and tasks. They will assign tasks, approve reports, take decisions and create cases. They can open an investigation, see old cases, open the archive and send their closed investigation to the prosecutor. They will be able to keep track of their case with checkpoints. They can put people involved in a case, download the files.

d) Chief Police Officer

These are the leaders of the police structure. They have access over all the precincts of one city. They can take every decision. A chief police officer can review every police officer, he can investigate cases. He will give the approval for the critical cases. The chief police officer will see the performance of all the team. He will see the best employee and also, he can message them directly. He can see their cases and how the work has been handled.

e) Internal Affair Officer

This is the section which manages and controls every documentation, process and work inside the police system. The main purpose of this section is to check for irregularities, corruption and problems among the police employees. They receive complaints from citizens and make sure to check whether this complaint is correct or not and if so, they take measures to legally start a procedure for the police employees (of all ranks) and send them to the prosecutors.

### **2.3 Assumptions**

It is assumed that State Police has the right to go through all the data generated from every other police precinct according to law.

It is assumed that the data generated from the system will be fully confidential and only available to the police and/or higher state institutions such as Prosecution Institution of Albania.

It is assumed that the Police has all the information for every individual of Albania and can see their profile and every penal case.

It is assumed that every police has a computer at their work and internet so they can access the website.

It is assumed further that the police employees are able to use internet and especially the State Police System effectively and efficiently.

It is assumed that every police officer should be limited to watching only tasks assigned to his precinct and not interfere with other precincts.

It is assumed that office employees have a web browser and an active internet connection.

It is assumed that every completed task needs to be stored in the system for documentation and research purposes.

## **2.4 Constraints**

This system will be potentially constrained by:

- There are a lot of files to be digitalized
- The server might be overloaded
- The need of a fast internet connection and working computers
- Having every police employee understand the way the system works and making sure they do not make mistakes
- Cars should have GPS technology

## **2.5 Dependencies**

- Tasks and cases are assigned by the police officer to regular police employees. Although, the tasks need to be added. So, police officers will add new cases in the system and then assign them to employees.
- After a police employee finishes a job and wants to send a report, he has to wait for the approval of his police officer.
- In cases which are labelled confidential and critical, the approval of the Chief Police Officer is required, so all the employees working on that job need to wait to do their investigation.
- The performance evaluation by the officers cannot be done if police employees have not been able to complete any task by using the system. Evaluation will be more realistic and helpful if there are lots of tasks completed.

### **3.Requirements**

#### **3.1 Functional Requirements**

Req#	Requirement	Comments	Priority	Date	SME Reviewed / Approved
BR_01	The system should have a web application which will be used by administrators.	This web application will be the main platform.	3	29/03/19	Orges Balla/ Kristian Sota
BR_02	The system should have a client – side interface.	This will allow citizens to be informed and use the police services	3	29/03/19	Orges Balla/ Kristian Sota
BR_03	The police employees must use the data from the database only for work purposes	This will ensure the law is enforced for Data Protection.	1	29/03/19	Orges Balla/ Kristian Sota
BR_04	The Police Officer will have a dashboard where he can manage all his tasks, but also his employees.	Police Officers are responsible for their precinct and also for their respective police employees.	3	29/03/19	Orges Balla/ Kristian Sota
BR_05	Archives data are very important for every police staff. They need to be able to fetch information easily.	Data about old cases or information about citizen are important in the daily work of a police employee.	3	29/03/19	Orges Balla/ Kristian Sota

BR_06	The system should provide officers and chiefs with the ability to assign jobs/cases/filings/investigations to their employees.	Very important aspect since this will make the work flow.	3	29/03/19	Orges Balla/ Kristian Sota
BR_07	Police Officer should be able to distribute works and tasks to employees.	This will be accomplished automatically.	3	29/03/19	Orges Balla/ Kristian Sota
BR_08	The Police Employee should be able to file a report.	This will be accomplished on the dashboard.	3	29/03/19	Orges Balla/ Kristian Sota
BR_09	The reports or cases filed should be approved by the Police Officer.	Every cop should have his boss approval.	3	29/03/19	Orges Balla/ Kristian Sota
BR_10	In very important and critical cases, the approval of the major Chief Police Officer should be given.	The operations cannot be undertaken without the approval of Chief Police Officer in case of confidential cases.	3	29/03/19	Orges Balla/ Kristian Sota
BR_11	When creating reports, a format will be provided so the employees can fill the fields and the format is maintained.	This will be accomplished by having a button that will trigger an action and will store it in the database. If names are provided, the employees will be informed.	3	29/03/19	Orges Balla/ Kristian Sota
BR_12	The Officers should be able to watch the current progress in an investigation and the names of each employee involved.	This will be done in the Officer's dashboard where he can open his investigations.	2	29/03/19	Orges Balla/ Kristian Sota
BR_13	The ability to search for any citizen on the database is something that should be provided.	Each employee will have a search bar where he can search for a citizen.	2	29/03/19	Orges Balla/ Kristian Sota
BR_14	Every employee should be able to access the archive where they can get more information.	There will be an interface where they can search the archive with keywords.	3	29/03/19	Orges Balla/ Kristian Sota
BR_15	The Chief Police Officer can check all the employees	There will be several Chief Police Officers that can	2	29/03/19	Orges Balla/ Kristian Sota
BR_16	The State Police will have a lot of employees. In this case the tabular view of employees should not overflow. Pagination will help officers to slide through employees with ease.	Pagination will be implemented in case of need.	3	29/03/19	Orges Balla/ Kristian Sota

BR_17	The Chief Police Officer can check the employee's performance.	The performance is evaluated on cases or tasks completed.	3	29/03/19	Orges Balla/ Kristian Sota
BR_18	The Police Officer should be able to receive messages in the platform.	There should be a section that he can receive alerts/ messages/ notifications about the progress.	3	29/03/19	Orges Balla/ Kristian Sota
BR_19	The police employee can add new tickets for citizens.	The citizens will be fined and these tickets can be added to the system.	2	29/03/19	Orges Balla/ Kristian Sota
BR_20	Citizen should view their tickets.	Every citizen with a car should be able to check their tickets. The system should offer this feature.	3	29/03/19	Orges Balla/ Kristian Sota
BR_21	An officer should only see his cases and his tasks.	Access should be given only in cases they own.	3	29/03/19	Orges Balla/ Kristian Sota
BR_22	The web application should be responsive.	The users should be able to access this web application from many devices.	3	29/03/19	Orges Balla/ Kristian Sota
BR_23	The Chief Police Officer should be able to message his employee.	A message will appear on his dashboard.	3	29/03/19	Orges Balla/ Kristian Sota
BR_24	The citizen should handle the complaints.	He can either reply to the citizen or report to supervisor.	3	29/03/19	Orges Balla/ Kristian Sota
BR_25	The internal affairs officer will see the complaints on employees.	That will be provided in his dashboard	3	29/03/19	Orges Balla/ Kristian Sota
BR_26	Each user should be able to change the password.	This basic functionality should be implemented for every user.	3	29/03/19	Orges Balla/ Kristian Sota
BR_27	The employee should be able to upload file reports.	After finishing his task, he should upload the file report.	3	29/03/19	Orges Balla/ Kristian Sota

## **3.2 Non-Functional Requirements**

### **3.2.1 User Interface Requirements**

The system shall be a web application, which can be seen either with Mozilla, Chrome or Safari. The application will have a user interface that will be for the citizens. It will have some sections and services.

On the navigation bar there will be a login button. The Login button will redirect to a simple login interface, where it will ask the user for Email and Password. The user will gain access to the system, in case of proven authenticity otherwise, an error message of invalid credentials will be displayed.

As part of the structure of the system, there will be 4 different dashboards that will make possible to ease paperwork, increase work productivity and efficiency.

The user interfaces will be:

#### **-Regular Employee Interface:**

It will contain:

- Employee's dashboard. It will consist of several menus related to the work.
- "Profile" Menu – In this menu the employee can see his/her profile.
- "Tasks" Menu – This is where the police employee checks all the assigned tasks from his superiors. If there are no tasks assigned, "You have no tasks" message is shown.
- The "Change Password" menu will display a simple form which contains fields, and a button. When that button is pressed the system checks if the current password matches, then checks if the new password is the same in the both fields and validates the password format (for example: only alphanumeric characters at least one number and one uppercase). If all the validations are correct it displays a message that says "Password was changed successfully!", otherwise displays a message with the respective error.

- “Citizens Lookup” Menu - In this menu, the police employee only has to enter a name of the citizen he/she is looking for and the result from the database will pop up immediately. Then the employee can open the profile of the citizen and check all the data registered, including the cases that this citizen has been involved to before.
- The “Log out” will terminate the current session and will resent the user to the main page.

### -Police Officer Interface

The police officer interface will contain:

- A dashboard a little more different than the regular employee. In this dashboard, the Police Officer will have the “Cases” Menu. In this menu, he/she can check all the cases and add new cases.
- “Tasks” Menu. In this menu, the police officer can assign tasks to the police employees and also check for every notification or message coming from the employees. He/she can approve requests coming from the employees.
- “Citizens Lookup” Menu - In this menu, the police employee only has to enter a name of the citizen he/she is looking for and the result from the database will pop up immediately. Then the employee can open the profile of the citizen and check all the data registered, including the cases that this citizen has been involved to before.
- “Complaints” Menu – In this menu, the police employee can see all the complaints that are sent to the systems by citizens. He can choose whether to mark these as answered by replying and leaving a comment. After this action, the police officer can send the report to his superior (the Chief Police Officer).
- The “Change Password” menu will display a simple form which contains fields, and a button. When that button is pressed the system checks if the current password matches, then checks if the

new password is the same in the both fields and validates the password format (for example: only alphanumeric characters at least one number and one uppercase). If all the validations are correct it displays a message that says “Password was changed successfully!”, otherwise displays a message with the respective error.

- The “Log out” will terminate the current session and will resent the user to the main page.

#### -Chief Police Officer Interface

This interface will contain:

- “Citizens Lookup” Menu - In this menu, the police employee only has to enter a name of the citizen he/she is looking for and the result from the database will pop up immediately. Then the employee can open the profile of the citizen and check all the data registered, including the cases that this citizen has been involved to before.
- “Complaints” Menu – In this menu, the police employee can see all the complaints that are sent to the systems by citizens. He can choose whether to mark these as answered by replying and leaving a comment.
- Different from the Police Officer dashboard, the Chief Police Officer dashboard will contain the “Open New Investigations” menu where he/she can control the investigations and choose whether to open new ones.
- The “See performances” Menu, where the Chief Police Officer will have the opportunity to check the performance of each employee and see all the completed tasks/assignments by them.
- The “Change Password” menu will display a simple form which contains fields, and a button. When that button is pressed the system checks if the current password matches, then checks if the new password is the same in the both fields and validates the password format (for example: only alphanumeric characters at least one number and one uppercase). If all the validations are correct it displays a message that says “Password was changed successfully!”, otherwise displays a message

with the respective error.

- The “Log out” will terminate the current session and will resent the user to the main page.

**-Internal Affairs Interface:**

- The Internal Affairs Dashboard will consist of the “Citizens Lookup” Menu - In this menu, the internal affairs employee only has to enter a name of the citizen he/she is looking for and the result from the database will pop up immediately. Then the employee can open the profile of the citizen and check all the data registered, including the cases that this citizen has been involved to before.
- In addition to the other dashboards, the Internal Affairs Dashboard will have the “Employee Lookup” Menu, where he/she can enter the name/email>ID of an employee and open the profile of that employee. Furthermore, the IA can choose whether to open an investigation for this employee through the start investigation form. In this form, he/she can register the reason for opening this investigation and add other backup materials such as file documents or even multiple files.
  - “Investigations” Menu- In this menu, the Internal Affairs employee can see all the ongoing or closed investigations registered by him/her.
  - The “Change Password” menu will display a simple form which contains fields, and a button. When that button is pressed the system checks if the current password matches, then checks if the new password is the same in the both fields and validates the password format (for example: only alphanumeric characters at least one number and one uppercase). If all the validations are correct it displays a message that says, “Password was changed successfully!”, otherwise displays a message with the respective error.
  - The “Log out” will terminate the current session and will resent the user to the main page.

### **3.2.2 Learnability**

- The application is simple to use and understand.
- The web application will come together with a PDF manual, providing a step by step information on how to effectively use the system.
- Specific error messages will be displayed, by also identifying the specific action, that caused the error.
- The application is specified for certain users, thus the system will know, when a certain action is not allowed

### **3.2.3 Accessibility**

- Each user will be given his/her username and password as soon as they are considered registered in the page by the administrators.
- All the police workers separated into four users will have access to the system. These are: regular police employee, police officers, chief police officers and Internal Affairs Director.
- Citizens can access the system without having to log in. They can use the services interface in order to receive services from the system.
- These users can access the system at any time and any place

### **3.2.4 Efficiency**

- Each operation will be fast and in real time.
- Once the users have learned the system, they will be able to perform each operation within minutes.

### **3.2.5 Memorability**

- This software is built in such a way that each user will find no difficulties in memorizing the usage and its functions
- The system is intuitive, hence there is no problem if the users forget how to use it.
- There will be a PDF manual for the software, therefore in case of forgetting

something, the users will be able to look it up there and find it within minutes.

### **3.2.6 Errors**

- There is a very low error rate
- Once an error occurs, it can be edited and fixed right away.

### **3.2.7 Satisfaction**

The system is very satisfactory with a user-friendly interface and through its easy usage methods.

### **3.2.8 Capacity**

The application needs to be stored in a web server. The application itself will have a maximum size of 100 MB. The database will be complex and considerably large. Anyway, the application is expected to work just fine when every user will be logged on.

## **3.2.9 Organizational Requirements**

### **3.2.9.1 Availability**

- The web Application will be available for use 24/7.
- The Web Application will work in optimal manners during the working hours of the day.
- The application can be accessed and used in any geographical site area, as long as the user has an active internet connection.
- By creating separate user sessions, their overall work efficiency and productivity will not decrease by much, while using the application.
- Specific error messages will be provided, in case an action would cause system's fatal error.

### **3.2.9.2 Latency**

The latency of the web application will depend on:

- The internet connection bandwidth
- The efficiency of fetching data from the database
- The size of database.

Some functions such as searching for citizens might take longer.

### **3.2.9.3 Monitoring**

- The applications user interface will be easy, and it will not provide cases that would crash the system
- Necessary actions for any of error will be taken
- The login interface needs a (1) Email and (2) Password as input. These two-input data must be valid inputs.
- The user will log in the system, in case the user has entered valid credentials, otherwise an error message of “Invalid Credentials” will be displayed.

### **3.2.9.4 Maintenance**

- The system will be developed using MySQL for the database and APACHE server. Therefore, these two platforms will be used to maintain the application.
- The application will be developed in modules so it can be easily extended. New modules can be easily added to the application anytime
- In case the system crashes, the application is going to restart. During this process, the application will redirect the user to the dashboard, but the changes will be saved, and he will be asked to confirm them.
- If the problem persists, it is needed to contact the IT squad so a full restart of the server can happen.

### **3.2.9.5 Operations**

Some of the operations that can be taken by the users are:

- File a report
- Add a new case
- Open an on-going case
- Start an investigation on an employee
- Approve a request
- File a complaint
- Search for a citizen
- Report an injustice
- Assign someone to a task

- Search for the employees in the database
- Check your tasks
- Mark tasks as completed and upload reports
- Send email to the citizens
- Send email to Police Employees

### **3.2.9.6 Standards Compliance**

The application will be developed in such way that will follow and respect the rules and regulations determined by the State Police according with the law. There will be a whole section which will include the laws of State Police from our Constitution. This way, the users and visitors can check all the respective laws for this institution.

Everything included in this software will be fully done in compliance with the regulation and laws of the Inner Ministry, which is the Ministry that is in charge of this institution.

### **3.2.9.7 Portability**

- The system will be web-based; therefore, it will operate the same regardless of the operating system.
- The application can be accessed via a browser and an internet connection.

## **3.2.10 External Requirements**

### **3.2.10.1 Security**

*The information kept in the system's database is considered to be sensitive information. Therefore, we should make sure that the security of our system is high. According to the law No.9887, dated 10.03.2008, as amended with law No.48/2012, "On the Protection of Personal Data", the personal information of each user should be private and possible to be accessed only by the specified actors. Therefore, this information is secured with hashed passwords. Moreover, the users should be careful with the sensitive information that they enter in the system.*

### **3.2.10.2 Protection**

The application security is very important, since this is a highly confidential system. Protection is added in every form that will make sure that everything entered is correct such as a valid name, valid surname, valid email address and valid password.

- Encrypt the most sensitive information such as passwords using hashing

method to protect privacy.

- We will keep track of the activity of each user, such that in case of a problem the user will be held responsible.
- The employee is responsible for the personal data authenticity of the user he/she enters; hence the system is not responsible
- The system will validate each data for special characters and other specific conditions before inserting or updating in the database.
- Each user will see the data that he/she has entered in the system. Regarding the citizens, all users will have the possibility to see their general data.

### **3.2.10.3 Authorization and Authentication**

- Valid credentials are checked when users log in.
- Authorization will be based on the user type.
- Users will have access only to their information.
- Session to be used for the currently logged user.
- Using Cookies and PubCookie tool.

## **3.3 Domain Requirements**

This Web Application operates in the field of Albania's State Police. The main purpose is to digitalize and ease all the work of the police employees who have to do many things manually at this time. However, the most important thing in this Web Application is the security of data. Since it is sensitive information, it should be accessible only by the users that have an account on this software. This application is assumed to be used in the state police's network and it does not have to communicate with any other system.

## 4 Software Design / Diagrams

### 4.1 User Scenarios

Number	User Story Name	Description
1.	Web Successful Login	Web user successfully logs in with email and password
2.	Web Failed Login	Web user fails to login with his/her credentials
3.	Police Employee accepts a task	Employee from his dashboard accepts a task assigned to him
4.	Police Employee searches for a citizen	Employee on his dashboard can search for citizen information.
5.	Police Employee files a report	Police employee files a report on his report's dashboard
6.	Police Officer assigns an employee to a task	The officer assigns an available employee for this task.
7.	Police Officer opens the archive	On his dashboard, the officer opens the Archive Module where he can view old cases.
8.	Police Officer adds people to a case	The Officer can add people to the case and they become involved.
9.	Police Officer reads his messages	The officer will read his messages on his dashboard.

10.	Police Officer uploads file reports for his case.	The police officer can upload files for each of his cases.
11.	Police Officer can download and zip all files.	The police officer can zip the files and send to prosecution.
12.	Chief Police Officer checks confidential cases	The Chief Police Officer can check for confidential cases
13.	Chief Police Officer can check all the employees and officers.	In the dashboard he can view every employee and their performance.
14.	Chief Police Officer check the performance of the team.	He will see the performance and the employee of the month.
15.	Chief Police Officer can message his employees.	On the employee profile, he can direct message him.
16.	Police Officer deletes a report	The police officer can delete a report up to 30 days later.
17.	Internal Affairs opens an employee profile	Internal Affairs Officer selects the Employees Dashboard and views the profile.
18.	Internal Affairs Officer starts an investigation through his dashboard	The Internal Affairs Officer can put an employee under investigation.
19.	Internal Affairs Officer gets notified about complaints	The Internal Affairs Officer will be notified about employee's complaints.
20.	Internal Affairs Officer suspends an employee	On his employee list, the officer can decide to suspend an employee.

## 4.2 User Scenarios Extended

1. Web App Scenario – Successful Login
  - a. The user clicks on the navigation bar the Login button
  - b. The user is asked to enter his email address
  - c. The user is asked to enter his password
  - d. If the credentials are correct, he is logged in
  - e. He will be redirected to the interface of his dashboard
2. Web App Scenario – Failed Login
  - a. The user clicks on the navigation bar the Login button
  - b. The user is asked to enter his email address
  - c. The user is asked to enter his password
  - d. The credentials are wrong, a message is displayed.
  - e. He will try again.
3. Police Employee accepts a task
  - a. A police employee is logged in
  - b. He checks his dashboard for assign tasks.
  - c. He reads the task and the report.
  - d. He presses the Button 'Confirm'
  - e. He starts working on that case/task
4. Police Employee searches for a citizen
  - a. A police employee is logged in
  - b. He opens the Search Module
  - c. He enters the information for a specific search
  - d. If found, the information is fetched from database.
  - e. He can read about that citizen.
  - f. He can put him under investigation on a case.
  - g. He can close that profile and redirect back to the dashboard.
5. Police Employee files a report
  - a. On his dashboard he opens the module of Filing Reports.
  - b. He adds a new report by pressing Add a New Report button
  - c. He fills the information on the correct form.
  - d. He can choose the option to send to his chief or other institution such as prosecution.
  - e. He saves the report and has the opportunity to print it.
6. Police Officer assign an employee to a case
  - a. The officer opens his current cases.
  - b. He reads the cases.
  - c. He can select from available employees to assign the case
  - d. He sends the case to the employee
  - e. He waits for the result
7. Police Officer opens the archive
  - a. On his dashboard he selects Archive Module
  - b. He enters the keywords for searching a case
  - c. The cases related are shown.

- d. He can open each one of them and read in detail.
  - e. He closes the case.
  - f. He is redirected to the main dashboard.
- 8. Police Officer adds people to a case
  - a. He enters the dashboard.
  - b. He opens the cases.
  - c. He selects the case he wants to add people.
  - d. He searches for the citizen he wants to add to this case.
  - e. He selects the employee.
  - f. He adds it to the case.
- 9. Police Officer reads his messages
  - a. On his dashboard, he opens Cases Module
  - b. He can see the new messages.
  - c. He can open a message and reads it.
- 10. Police Officer uploads file reports
  - a. On his dashboard, he open Cases Module
  - b. He selects the case and opens the File Upload Module.
  - c. He reviews his already uploaded files and can delete those.
  - d. He uploads new files.
  - e. He is redirected to Cases Module.
- 11. Police Officer can download and zip all files.
  - a. He opens the Cases Module on his dashboard.
  - b. He opens a case that he wants to see all files.
  - c. He can see all files for that particular case.
  - d. He can zip and download them.
  - e. The officer can send the zipped files to other departments.
- 12. Chief Police Officer checks confidential cases
  - a. In the dashboard, he will get an alert that a confidential/ critical case is in process.
  - b. He opens the confidential case
  - c. Checks the important info
  - d. He can choose if he wants to inform the Supreme Chief Police Officer
  - e. He gives his approval and assigns officers for this task
  - f. He can choose the option of information sharing
  - g. He closes the report
- 13. Chief Police Officer checks all employees.
  - a. After login, on his dashboard the chief police officer can select the Employees module.
  - b. On the module he will see all his employees and their works.
- 14. Chief Police Officer checks the performance of the team
  - a. After login, on his dashboard the chief police officer can select the Employees module.
  - b. On the module he will see all his employees and their tasks completed.
  - c. A graph will show their performance.
  - d. On the right side he can view employee of the month.
- 15. Chief Police Officer message an officer
  - a. After login, he can open an officer's profile.
  - b. He can write a direct message to him.

- c. The message will be sent instantly.
  - d. He returns on his dashboard
16. Police Officer deletes a report
- a. He can open the report
  - b. He can report it as invalid
  - c. He deletes the report
  - d. The reports are saved for a period of 1 year even after deletion
  - e. Internal Affairs get notified when a report is deleted
17. Internal Affairs opens an employee profile
- a. He goes to his dashboard
  - b. He opens the employee profile
  - c. He can see all his cases and each particular one
  - d. He can see the overall review for that employee
18. Internal Affairs Officer starts an investigation through his dashboard
- a. He goes to his dashboard
  - b. He opens the module which writes 'Start an investigation'
  - c. He enters the information of the employee/s
  - d. The employees under investigation will be on watch
  - e. The officer can see his private messages
19. Internal Affairs Officer gets notified about complaints
- a. If there are many complaints about a police employee, the IA officer will get a notification on his dashboard.
  - b. He can read the complaints for that specific employee.
  - c. After reviewing, he can take action depending on the issue.
  - d. He will have several options valid so he can choose.
  - e. After choosing, he closes the dashboard.
20. Internal Affairs Officer suspends an employee
- a. He logs in the system
  - b. He opens the on-going cases/investigations
  - c. He opens an employee profile
  - d. He suspends the employee by checking the button
  - e. The employee and his officer are informed immediately by the system.

### 4.3 Use Cases

Name	User logs in
Summary	User enters personal information to access his account.
Actor	Employee / Officer / Chief Officer / Internal Affairs
Description	User gains access on his account after typing his correct email and password.
Precondition	The account should have been registered beforehand and the email should be of the domain policiashtetit.gov.al

Alternatives	Each user has its own account. They can own only one account.
Post Condition	User is logged on his account.

#### Use case 1 – User Scenario 1

Name	Use fails to login
Summary	User enters personal information to access his account.
Actor	Employee / Officer / Chief Officer / Internal Affairs
Description	User enters incorrect information 5 times. His account gets locked for security purposes.
Precondition	The account should have been registered beforehand and the email should be of the domain policiashtetit.gov.al
Alternatives	After 5 attempts, the account of that user will get locked. He can unlock the account by resetting his password through his email.
Post Condition	User is locked out for security purposes.

#### Use Case 2 – User Case 2

Name	Police Employee accepts a task
Summary	The employee accepts a task assigned to him by the Police Officer.
Actor	Employee
Description	When he opens his dashboard, he goes to the dashboard of new tasks. There he reads the task and its description.
Precondition	The task/job should have been assigned prior to the employee by the Police Officer.
Alternatives	The employee will confirm the task and immediately start working. If the employee leaves it on pending, the officer responsible will be informed.
Post Condition	The officer is informed for the confirmation.

#### Use case 3 – User Scenario 3

Name	Police Employee searches for a citizen
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Summary	The employee searches for a citizen in all citizen database.
Actor	Employee
Description	When he opens his dashboard, he navigates to the Search Module. Then he searches for a citizen.
Precondition	You should be logged in to use this feature.
Alternatives	Employees can either type the name, the surname, or both. If there is no patient found, an informative message will be shown.
Post Condition	If results were found, a table with all the results will be shown.

#### **Use Case 4 – User Scenario 4**

Name	Police Employee files a report
Summary	The employee files a new report.
Actor	Employee
Description	Employee will click on reports page. He will click “Add a new file report” and a form will be shown. The form will have the appropriate format
Precondition	The employee has access on his reports only. Only he can add a report.
Alternatives	The file report might be for different purposes. Several types will be provided to ease the work.
Post Condition	The report may be sent to different institutions based on the purpose of report.

#### **Use Case 5 – User Scenario 5**

Name	Police Officer assigns an employee to a case
Summary	Police Officer assigns an employee to a case that he can work on that investigation/issue.
Actor	Officer

Description	On his dashboard, he will open valid cases. On the cases he can see the employees working on it. He can assign a new employee for that case.
Precondition	Officer should be logged in. Only officers and chief officer have access to this section.
Alternatives	The officer will be able to see the work load of the employees and based on his judgement he will assign. The system will prevent overloading in work.
Post Condition	The cases employee list is updated, and the employee is informed.
Name	Police Officer opens the archive
Summary	Police Officer opens the archive to search for old cases and reports
Actor	Officer / Chief
Description	On his dashboard, he can open the Archive. On the archive, he can search for old cases. The case will contain every information for that case.
Precondition	Officer should be logged in. Only officers and chief officer have access to this section.
Alternatives	The officer will search by keyword. The cases will be shown. He can also search by date, month, year and the respective cases will be shown.
Post Condition	The officer gets the information about past cases.

#### Use Case 7 – User Scenario 7

Name	Police Officer adds people to case
Summary	Police Officer involves more citizens in a case.
Actor	Officer / Chief

Description	On his dashboard, he can open the Cases. He can select a case and search for the citizen. Selecting the citizen would imply him in this case.
Precondition	Officers should be logged in. They can do this action only for their cases.
Alternatives	He will have to search for the citizen before adding.
Post Condition	The citizen is put on this case.

#### **Use Case 8 – User Scenario 8**

Name	Police Officer reads his messages
Summary	He will read messages that were sent to him by other people or the system.
Actor	Officer
Description	On his dashboard, he will see Cases Module. After opening, on the right side he will see new messages.
Precondition	Officers should be logged in. They will only read their own messages. The system should auto-message them when tasks are completed.
Alternatives	He will read the message and he can go back.
Post Condition	The employee gets notified for the messages.

#### **Use Case 9 – User Scenario 9**

Name	Police Officer uploads file reports.
Summary	Officer will upload file reports for his case.
Actor	Officer

Description	On his dashboard, he will see Cases and all the actions he can take. He chooses upload file.
Precondition	Officers should be logged in. They can upload only in their case.
Alternatives	After opening the file upload, he will see all the previous files uploaded and also can upload a new one.
Post Condition	A new file is uploaded in the case.

#### **Use Case 10 – User Scenario 10**

Name	Police Officer zips and download all files
Summary	He can zip all files and download them.
Actor	Officer
Description	On his dashboard, he will see Cases and all the actions he can take. He opens the case and he can download all the files
Precondition	Officers should be logged in. The files shouldn't be empty.
Alternatives	After downloading, he can use it to send it to other departments.
Post Condition	The files are zipped and downloaded.

#### **Use Case 11 – User Scenario 11**

Name	Chief Police Officer checks confidential case
Summary	CPO will give his approval on confidential cases.
Actor	Chief Police Officer
Description	The Chief Police Officer will get informed about a critical case being on progress.

Precondition	Only CPO will have access for confidential cases.
Alternatives	After reading the case, he will assign officers to this task. He can decide what information and files they can see.
Post Condition	The case is on process and the officers are informed.

#### **Use Case 12 – User Scenario 12**

Name	Chief Police Officer checks all the employees
Summary	CPO will check all the employees and their job.
Actor	Chief Police Officer
Description	The Chief Police Officer will see their tasks and how much they have completed.
Precondition	Only CPO will have access for this feature.
Post Condition	The chief police officer is informed about the employees.

#### **Use Case 13 – User Scenario 13**

Name	Chief Police Officer checks the performance of the employees
Summary	CPO will check the employees and how well they have performed.
Actor	Chief Police Officer
Description	The Chief Police Officer will see their tasks and their score. The employee of the month will be named.
Precondition	Only CPO will have access for this feature.
Post Condition	The chief police officer is informed about the performance.

#### **Use Case 14 – User Scenario 14**

Name	Chief Police Officer messages an officer
Summary	CPO will message an officer directly in via his profile
Actor	Chief Police Officer
Description	When opening the profile of an officer, he has the opportunity to direct message the officer.
Precondition	Only CPO will have access for this feature.
Post Condition	The chief police officer messages the officer.

#### Use Case 15 – User Scenario 15

Name	Employee deletes a report
Summary	Employee deletes a report that he filed up to 30 days.
Actor	Employee/Officer
Description	The employee might want to delete a report that he has filed up to 30 days. He will be able to do that on the reports page.
Precondition	The employee should be logged in and he can only delete his files.
Alternatives	The files will still be stored for a year to ensure transparency.
Post Condition	The case is on process and the officers are informed.

### Use Case 16 – User Scenario 16

Name	Internal Affairs Officer opens the profile of the employee.
Summary	Internal Affairs Officer will open the profile of an employee.
Actor	Internal Affairs Officer
Description	On his web application, he can check the employees. On the employees list, he will select a specific employee by clicking on his profile.
Precondition	The Internal Affairs will have a special role so they can access the profiles. They must be logged in.
Alternatives	On the profile he will see all his information, cases, complaints, issues and everything that the employee has completed or been part in.
Post Condition	The information for the employee is shown to the Internal Affairs Officer.

### Use Case 17 – User Scenario 17

Name	Internal Affairs Officer starts an investigation
Summary	Internal Affairs Officer will start an investigation on an employee based on his profile
Actor	Internal Affairs Officer
Description	On his dashboard, he will go to investigations and there he can select one or several individuals that he wants to put under investigation.
Precondition	The IA officer should be logged in. Only Internal Affairs Officers have access in this section.
Alternatives	The investigation would have reasons and the severity level of the investigation. The officer will decide if he wants to inform the employee.

Post Condition	An investigation is started for the employee.
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#### **Use Case 18 – User Scenario 18**

Name	Internal Affairs Officer suspends an employee
Summary	Internal Affairs Officer will suspend an employee based on his information.
Actor	Internal Affairs Officer
Description	On his dashboard, he will go to investigations and there he can open ongoing investigations and decide to suspend an active employee.
Precondition	The IA officer should be logged in. To suspend an employee, an investigation must be going on.
Alternatives	The decision would be made in an on-going investigation. He will choose the amount of time that the employee should be suspended and what steps should be taken.
Post Condition	An employee is suspended by Internal Affairs.

#### **Use Case 19 – User Scenario 19**

Name	Citizen checks his tickets
Summary	The citizen will check the fines and ticket for his car.
Actor	Citizen
Description	On the homepage, the citizen can navigate to Services in NavBar. There he can select Car Fines.
Precondition	Everyone can access this section since it is public. No need for authentication. Anonymous.

Alternatives	He should enter his car license plate and his manufacturing number and search. The tickets will be shown. In case of failure, a message will be shown.
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### Use Case 20

Name	Citizen files a complaint
Summary	A citizen can file a complaint anonymous or with his personal information.
Actor	Citizen
Description	On the homepage, the citizen can navigate to Services in NavBar. There he can select Complaints. He will write a complaint.
Precondition	Everyone can access this section since it is public. No need for authentication. Anonymous or with personal information.
Alternatives	He can decide to be anonymous or enter his personal information such Name Surname Personal Number etc.
Post Condition	A complaint will be filed.

### Use Case 21

Name	View Profile
Summary	An employee views his profile.
Actor	Employee/Officer/Chief Police Officer/ Internal Affairs Officer
Description	On his dashboard, he will see an Icon Profile. On click, he will be redirected to his Profile. He can check every information about his profile.
Precondition	They need to be logged in. Regular Police, Officers, Chiefs and Internal Affairs can check their profiles.

Post Condition	The profile will be shown.
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### Use Case 22

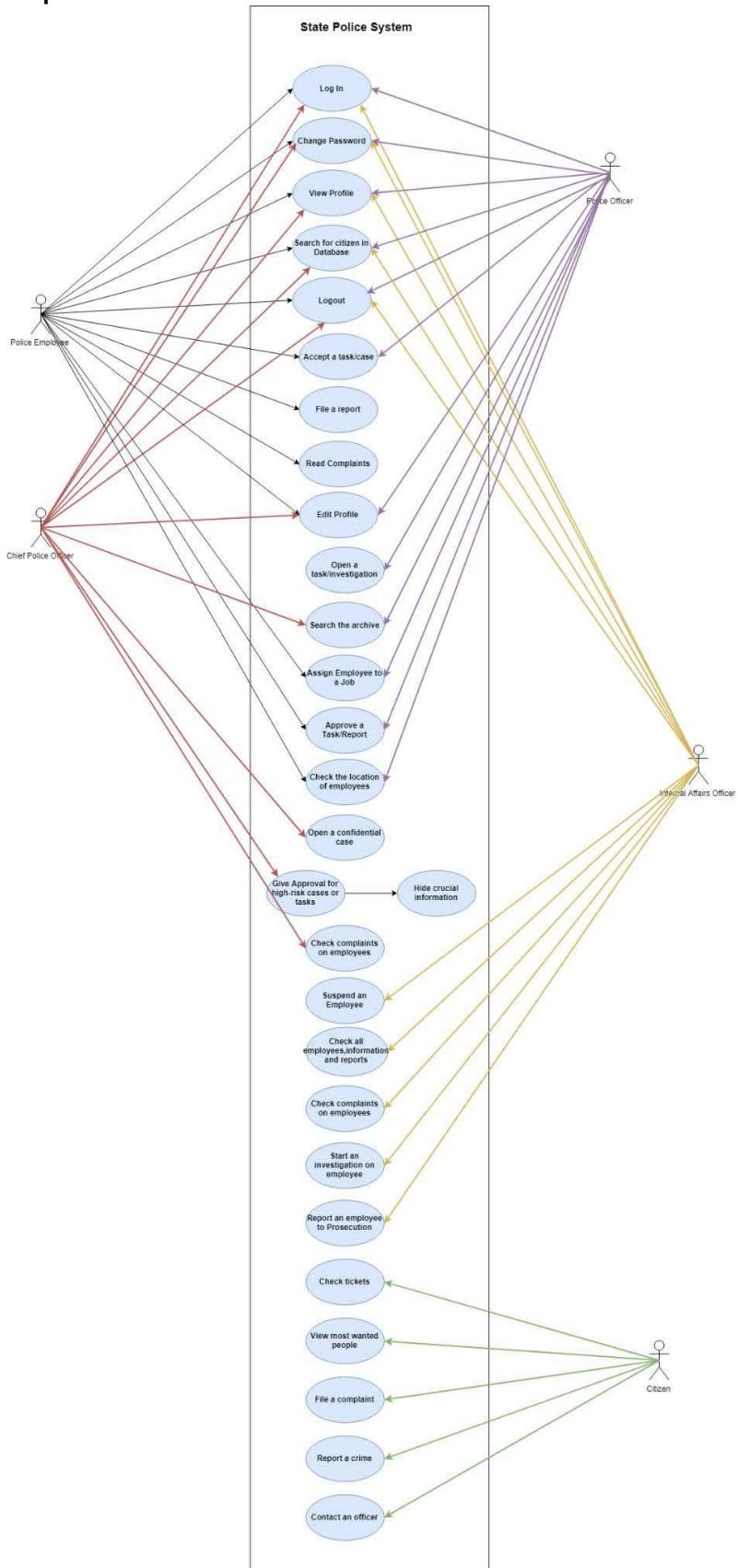
Name	Logout
Summary	Employees logout from the web application.
Actor	Regular Employee/ Police Officer / Chief Police Officer / Internal Affairs Officer
Description	The user logged in the system can log out by pressing under his profile Logout button.
Precondition	They should be logged in.
Alternatives	Since it is a high-level security system, a cookie will be used. The user would get logged out after 15 minutes of being inactive.
Post Condition	The user is logged out.

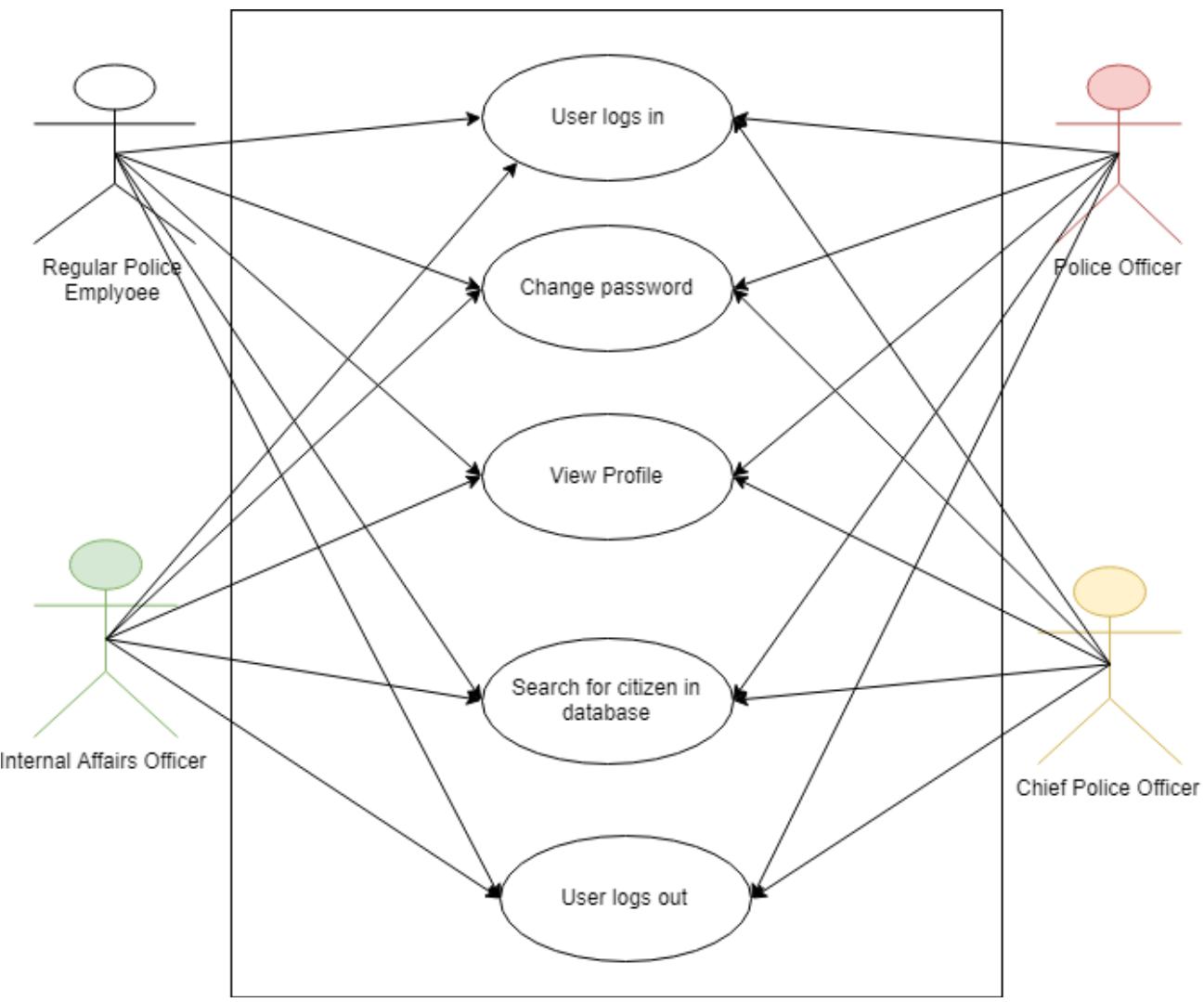
### Use Case 23

Name	Change password
Summary	Employees changes his password.
Actor	Regular Employee/ Police Officer / Chief Police Officer / Internal Affairs Officer
Description	The user logged in the system can change their password by clicking Change Password under their Profile section.
Precondition	They should be logged in.
Alternatives	They need to enter the old password and confirm the new password.
Post Condition	The password is changed.

## 4.4 Use Case Diagrams

### Complete Use Case





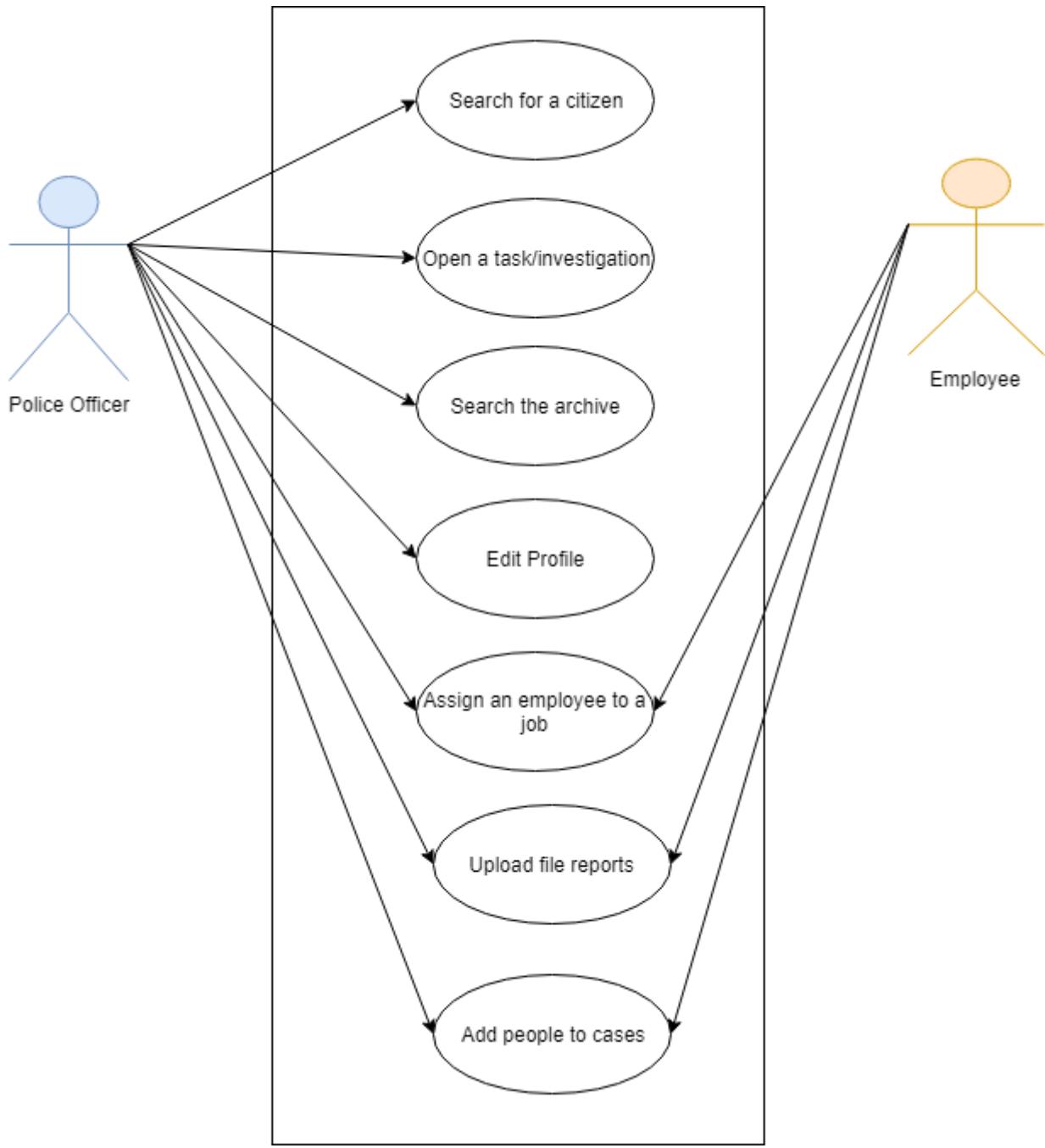
Use Case 1,2,21,22,23,24

### Regular Employee Use Case



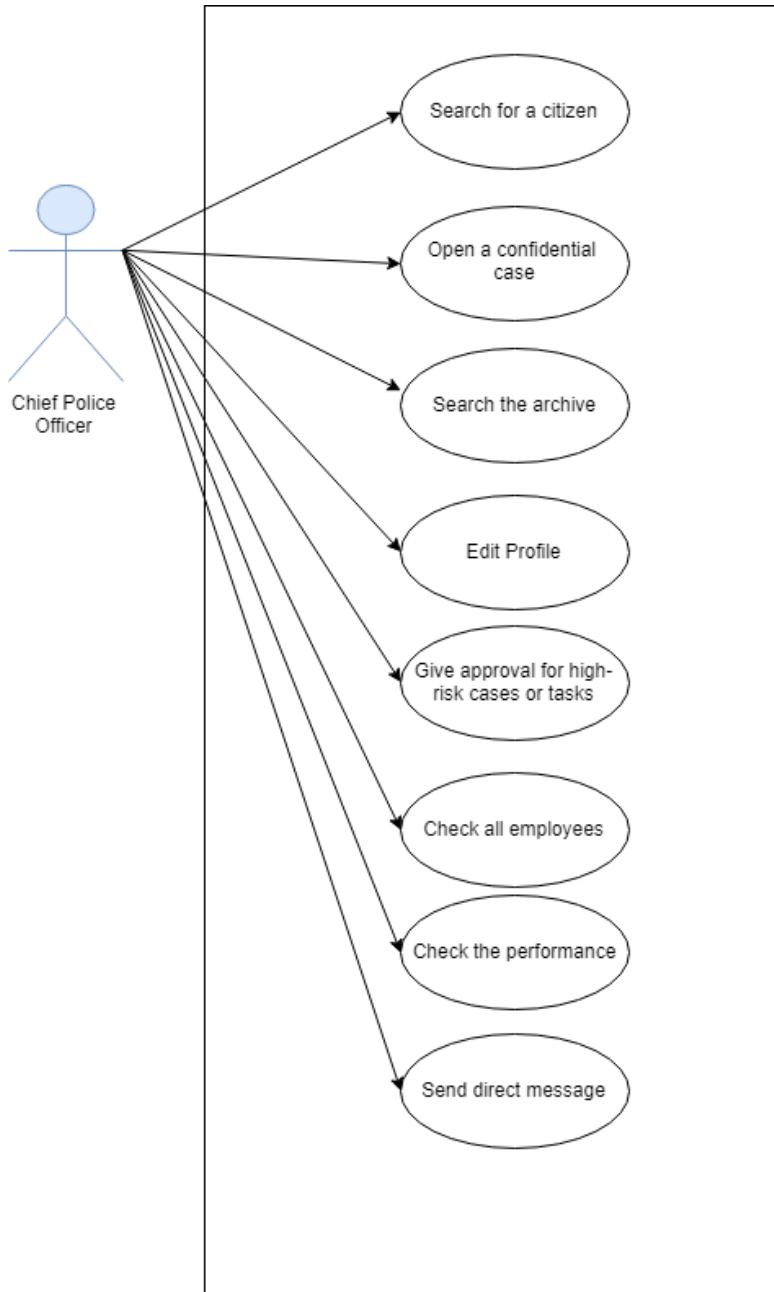
Use Case 3,4,5,22,20

### Police Officer Use Case



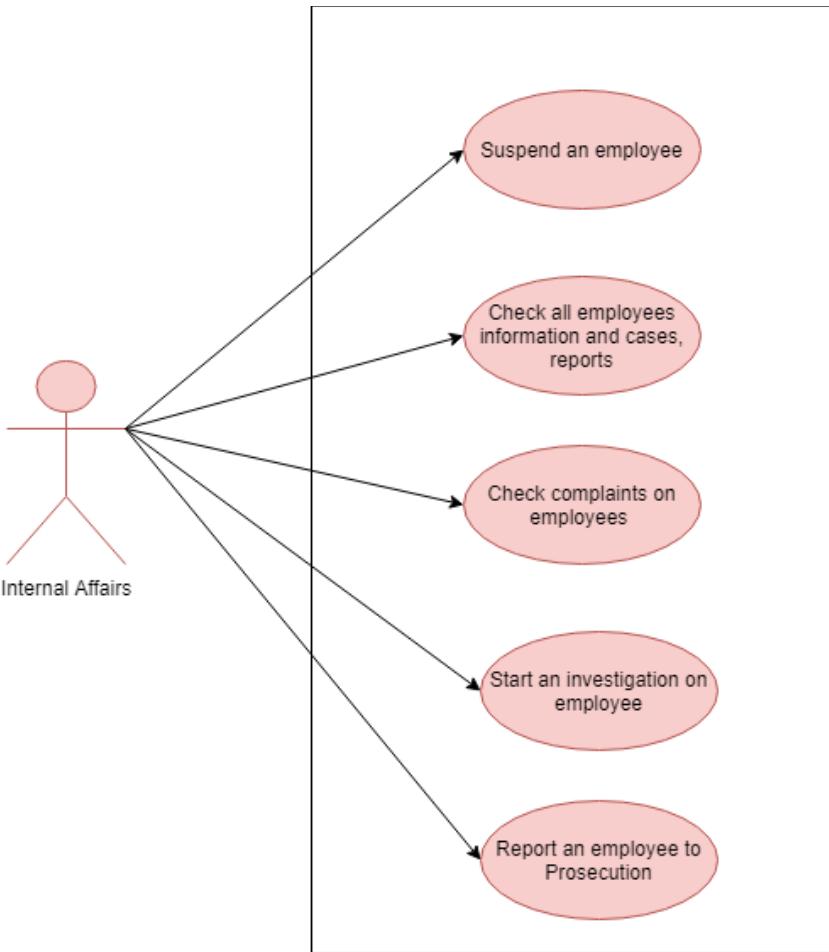
*Use Case 3,6,8,9,10,22*

#### **Chief Police Officer Use Case**



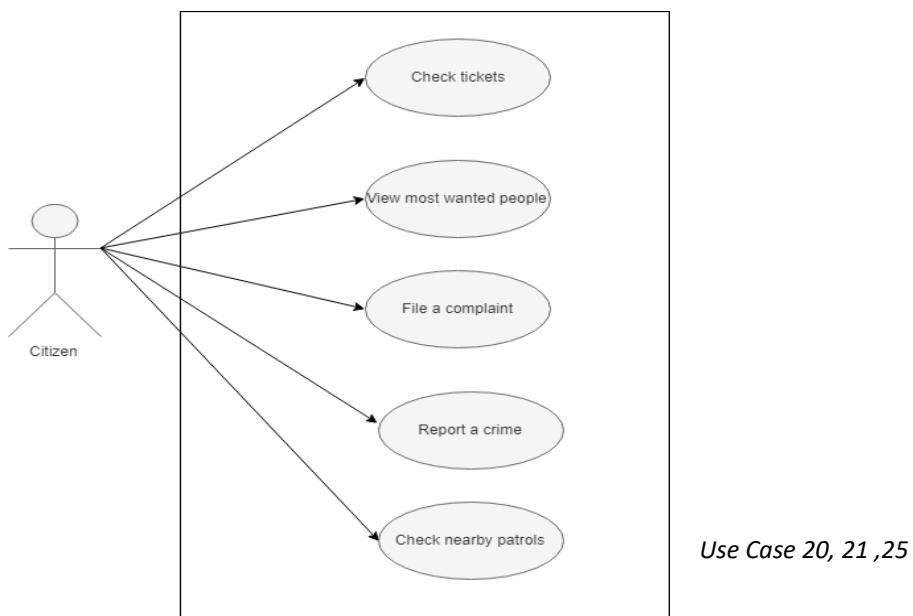
Use Case 3,7,13,14,15,22

### Internal Affairs Use Case



*Use Case 13,17,18,19,20*

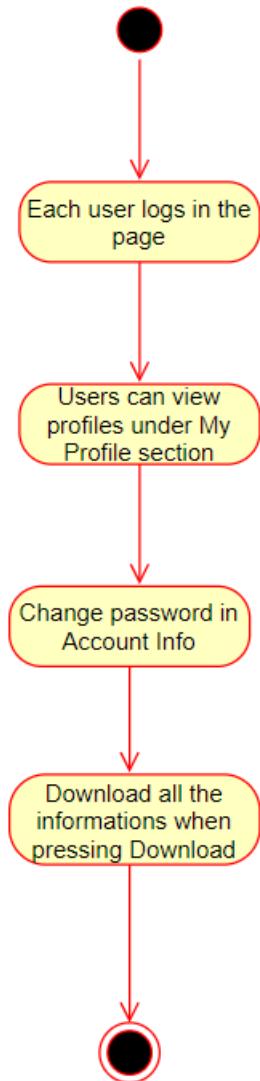
### Citizen Use Case



*Use Case 20, 21 ,25*

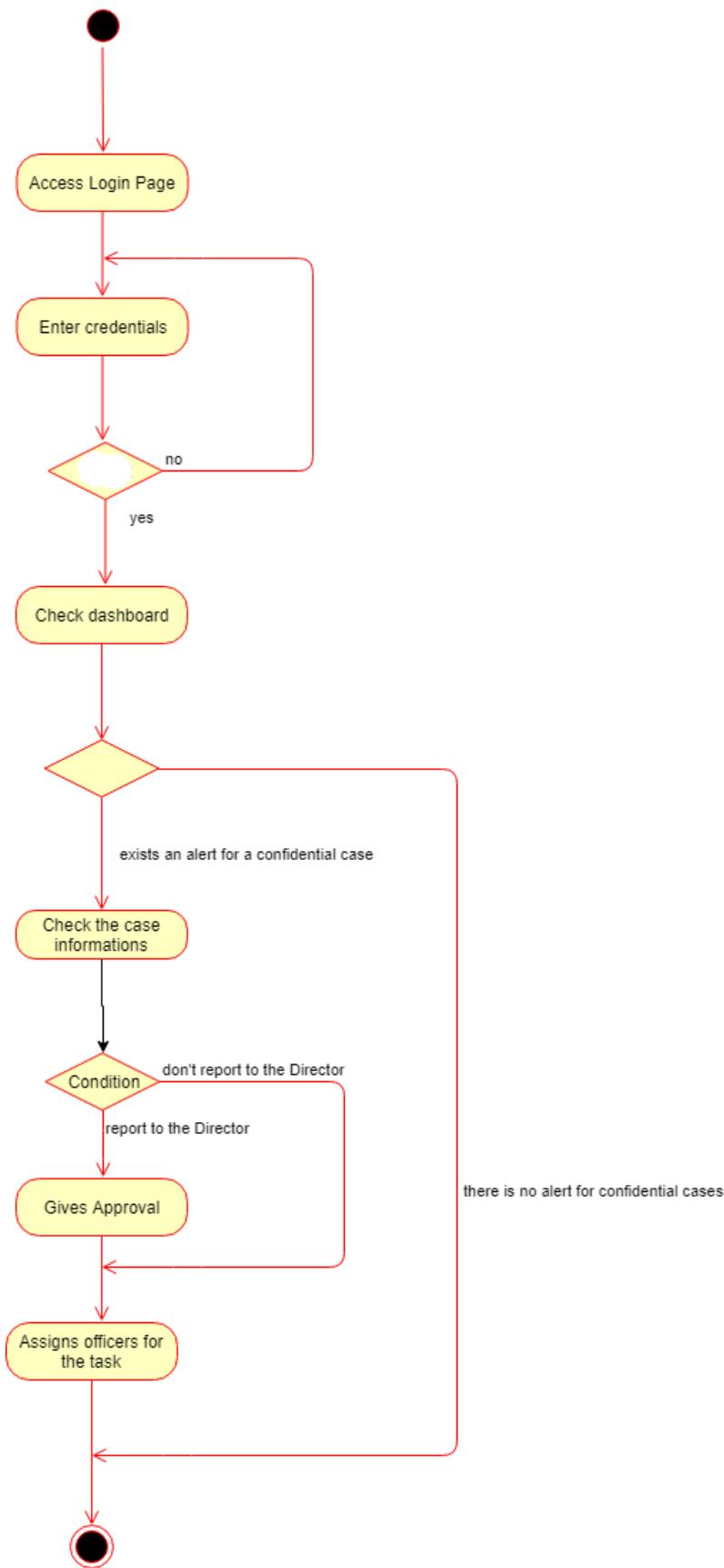
## 4.5 Activity Diagrams

### Users view profile Activity Diagram



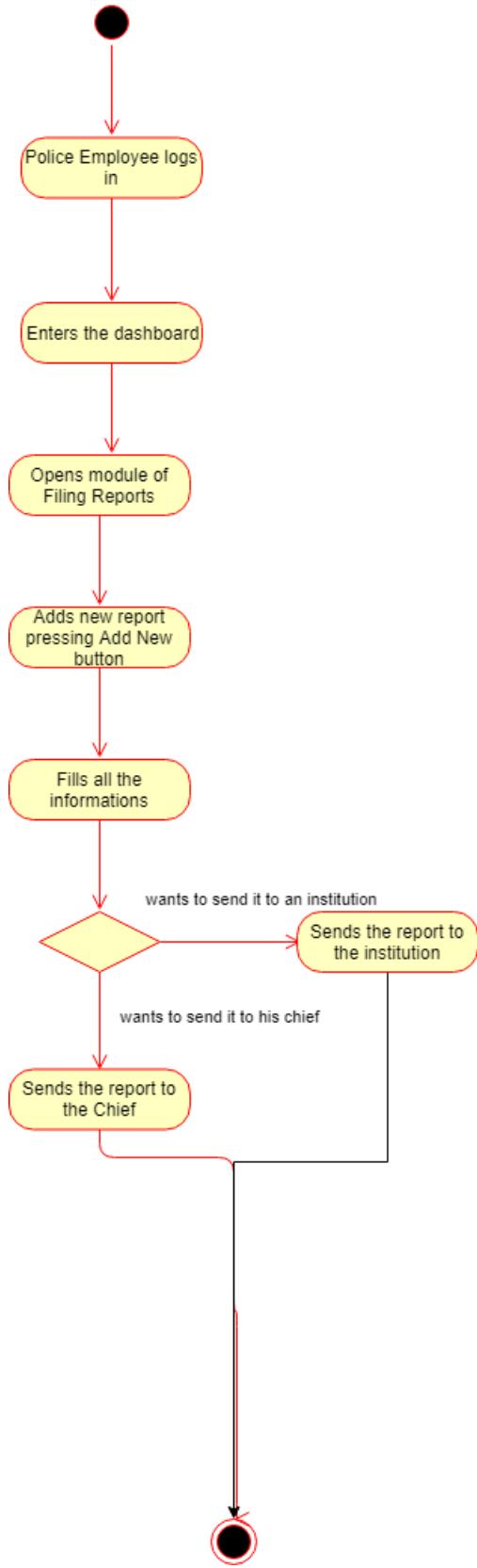
AD\_01 UC\_21, UC\_23

### Chief Police Officer Confidential Cases Activity Diagram



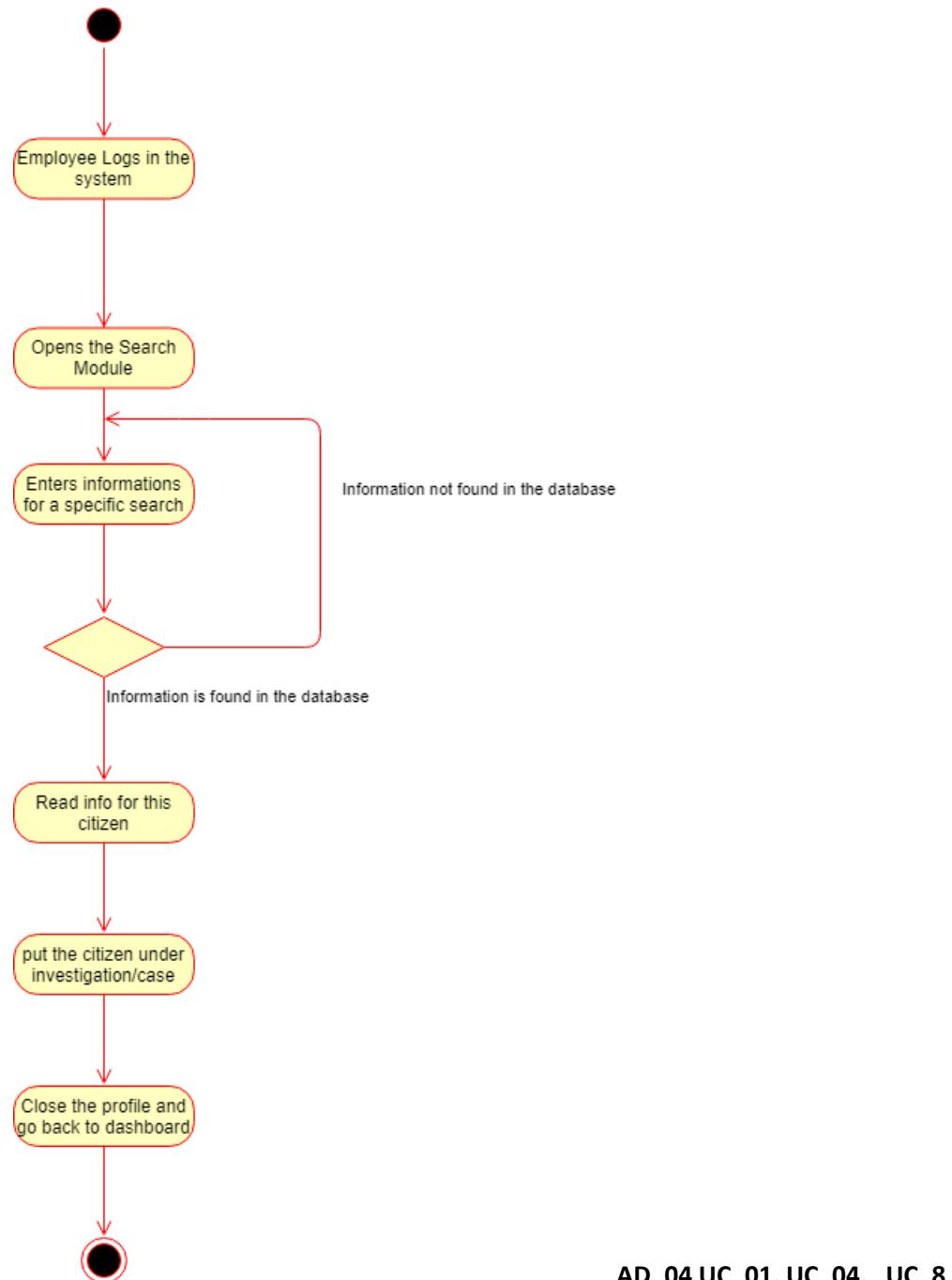
**AD\_02, UC\_01, UC\_11, UC\_6**

### Employee Add File Report Activity Diagram



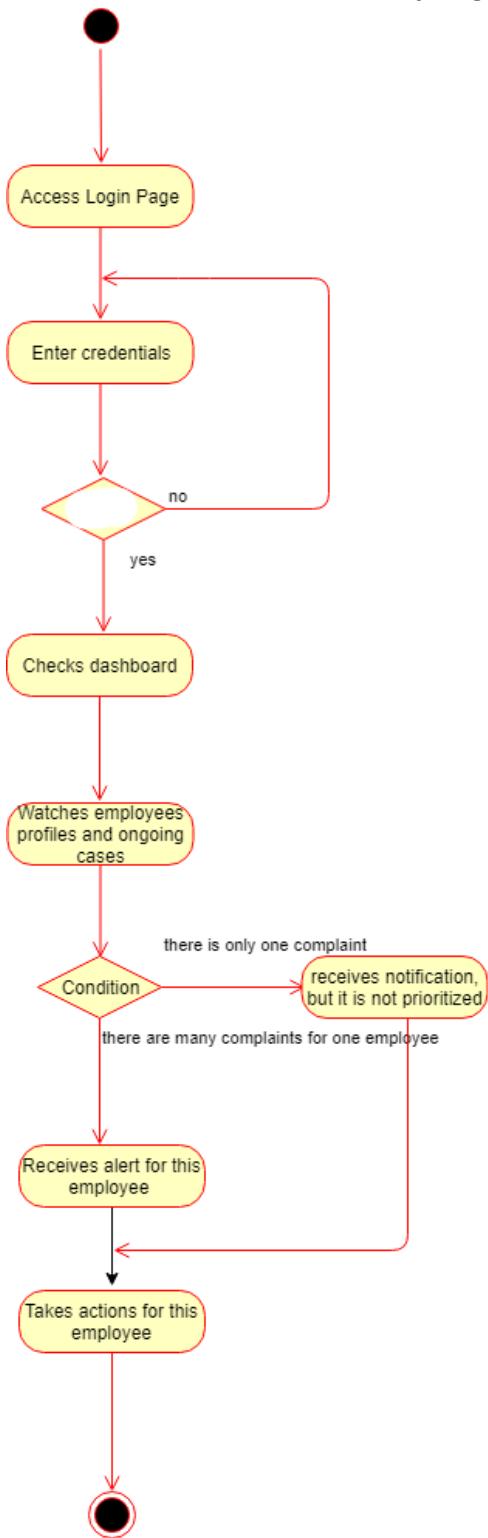
AD\_03, UC\_01, UC\_05

## Employee Search Citizen Activity Diagram



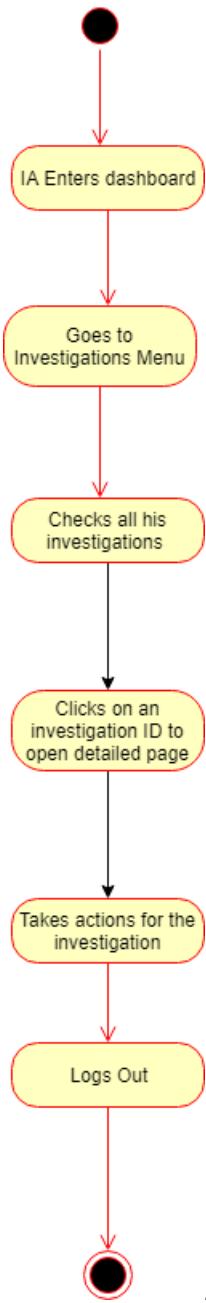
AD\_04 UC\_01, UC\_04, UC\_8

### Internal Affairs Dashboard Activity Diagram



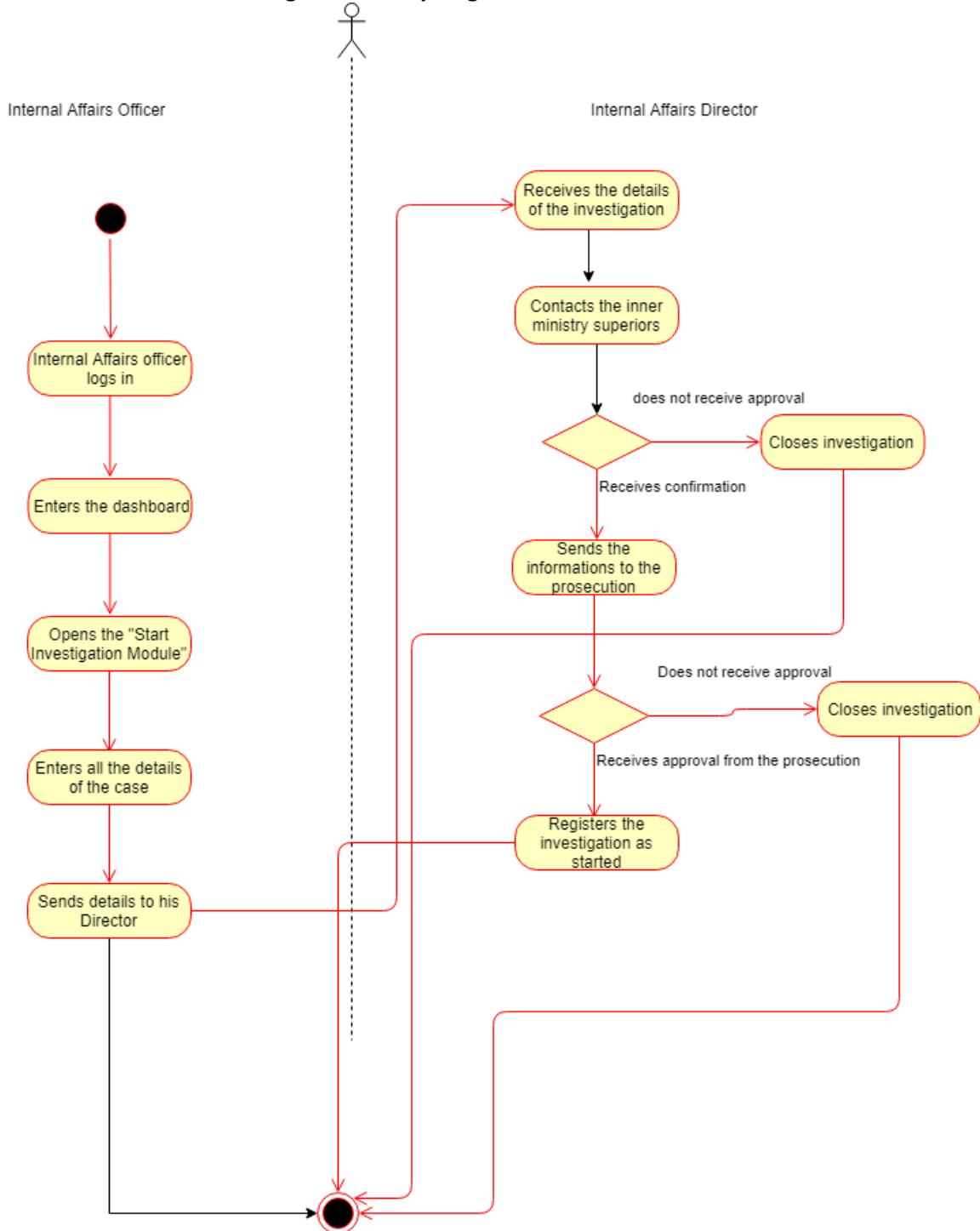
AD\_05, UC\_01, UC\_17, UC\_18

## Internal Affairs View All Investigations Activity Diagram



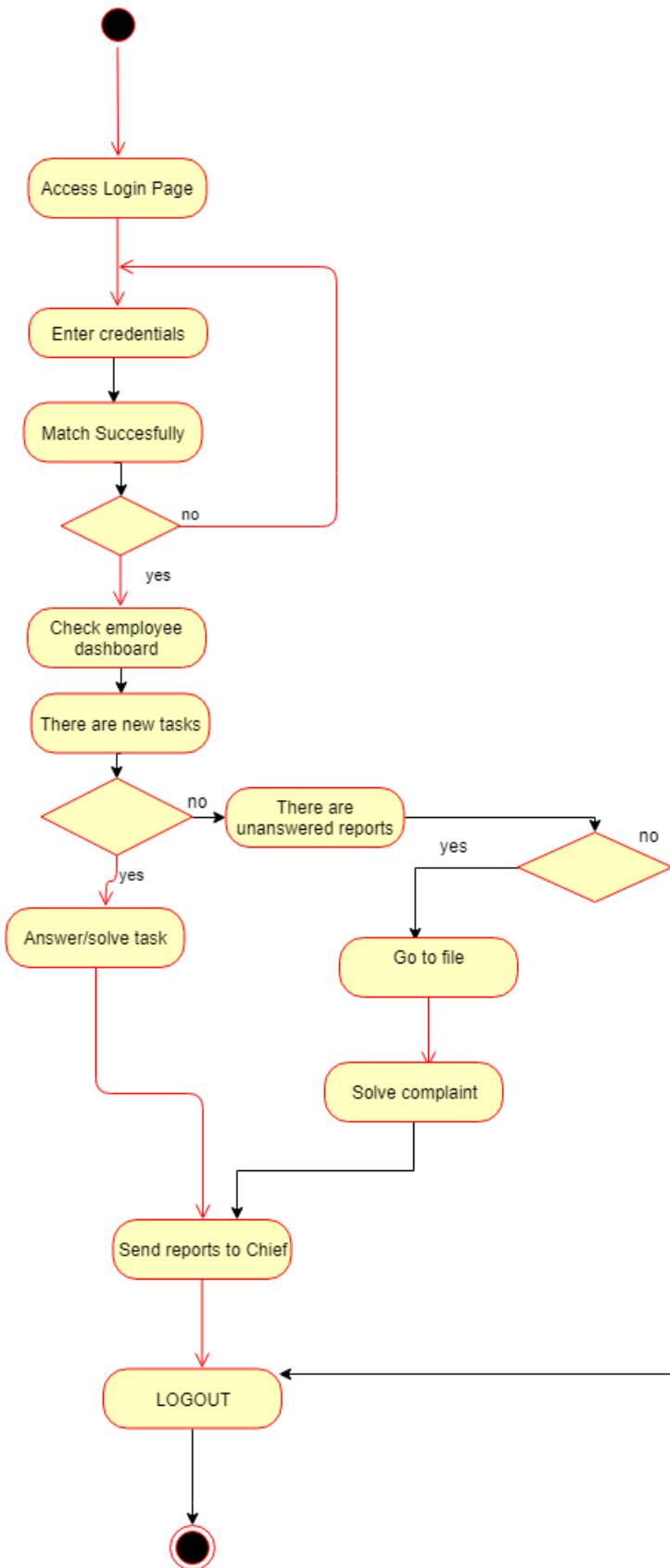
**AD\_06, UC\_16**

## Internal Affairs Start Investigation Activity Diagram



AD\_07, UC\_17

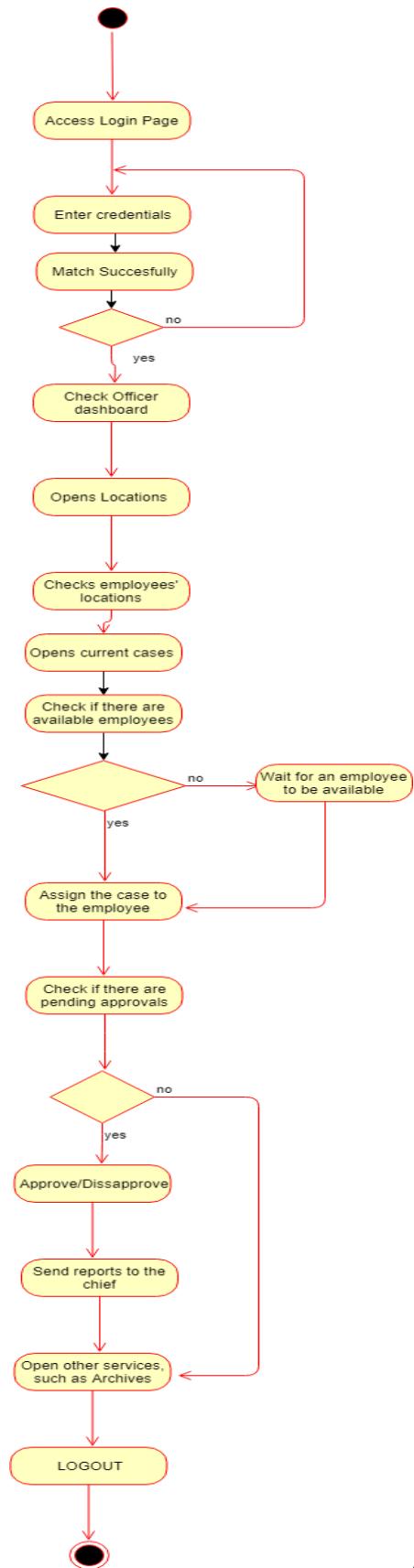
## Police Employee Login Activity Diagram



AD\_08, UC\_01, UC\_03, UC\_04, UC\_25

Page 50 of 120

## Police Officer Activity Diagram

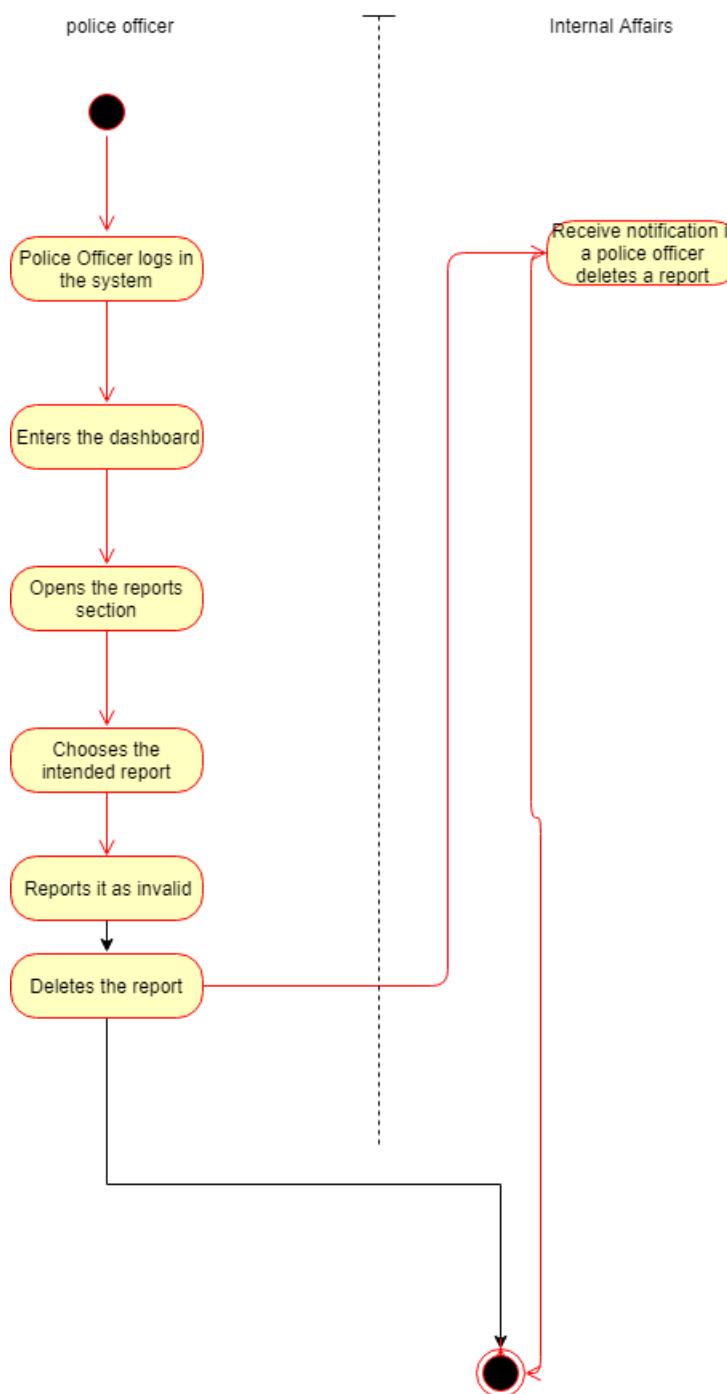


### **Internal Affairs Suspends Employee Activity Diagram**



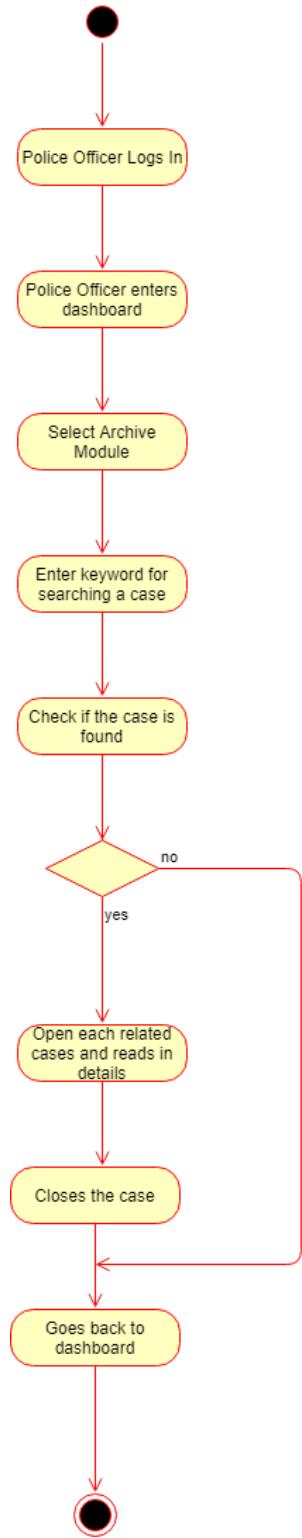
**AD\_10, UC\_18**

### **Police Officer Delete Report Activity Diagram**



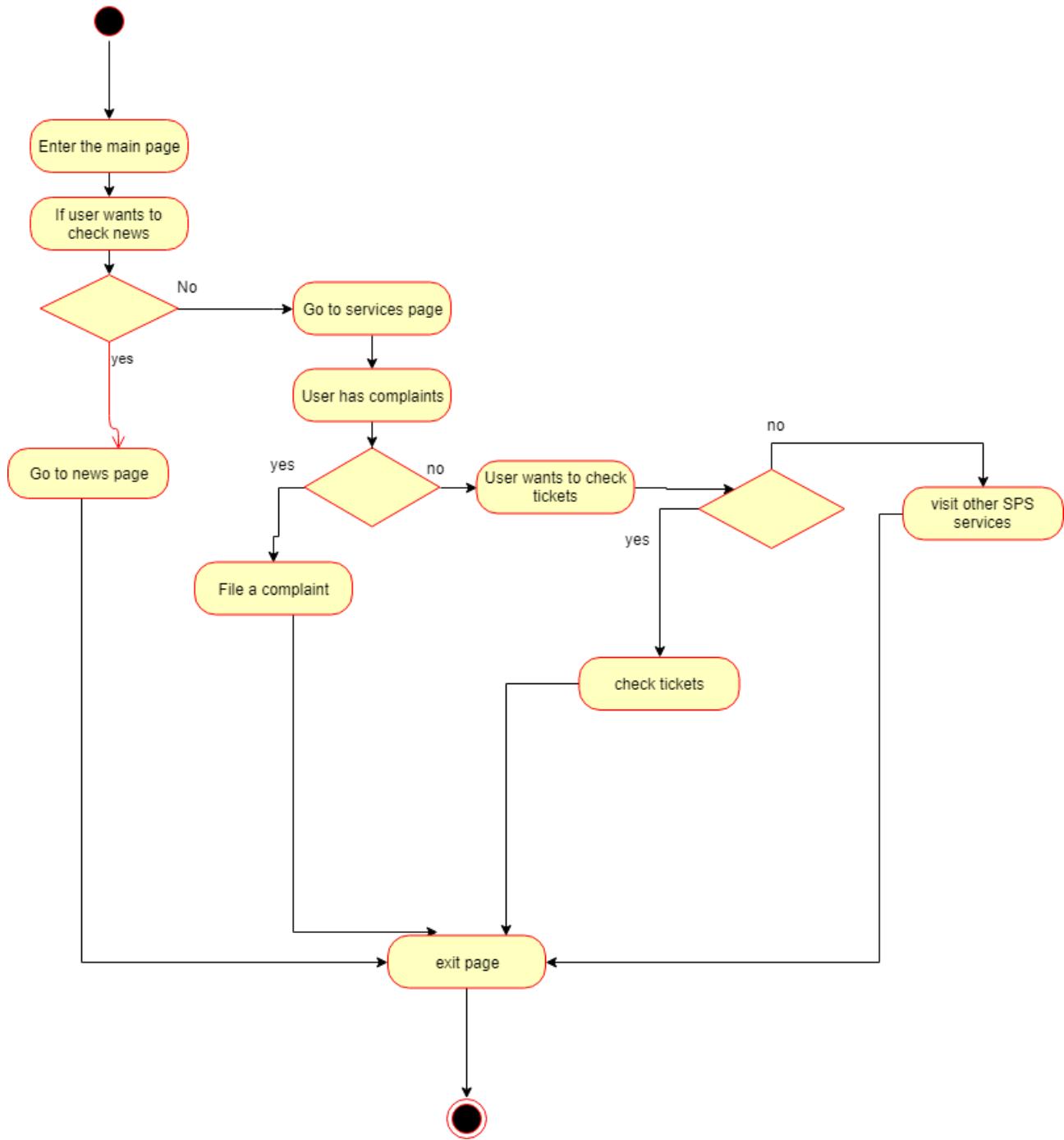
**AD\_11, UC\_16**

### Police Officer Opens Archive Activity Diagram



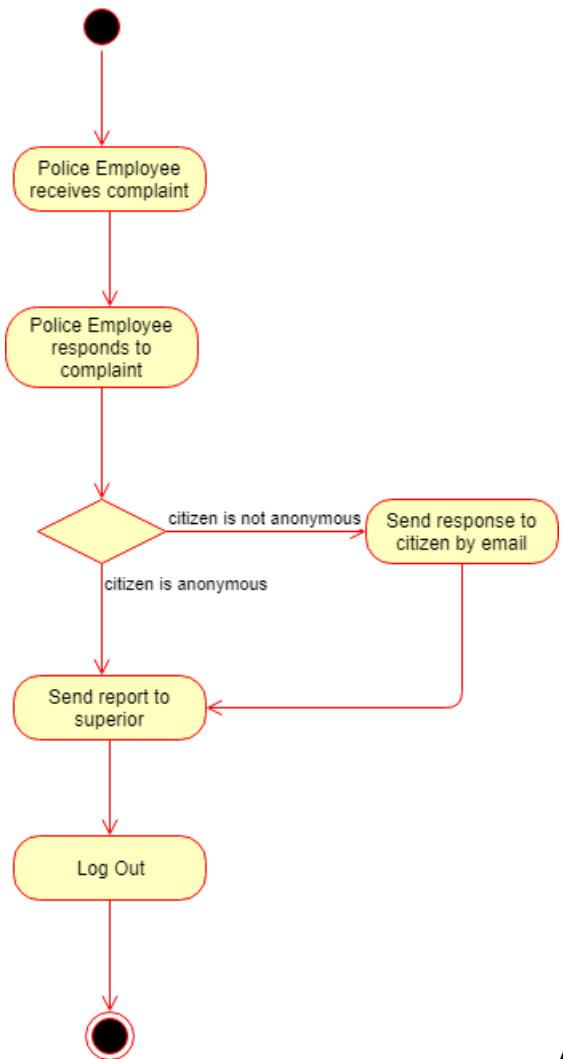
AD\_12, UC\_07

## User Interface Activity Diagram



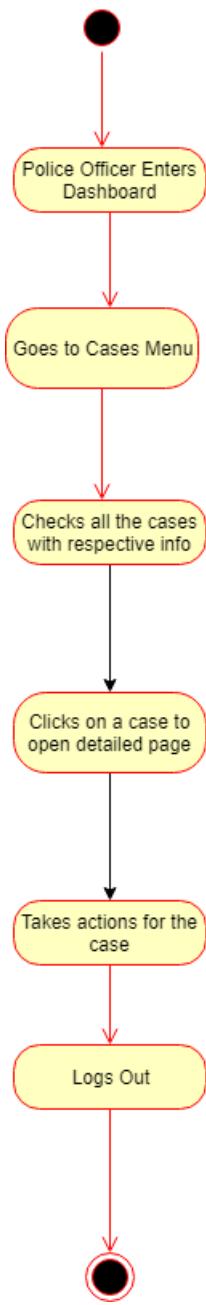
AD\_13, UC\_20, UC\_19, UC\_24

### **Police Employee Respond Complaints Activity Diagram:**



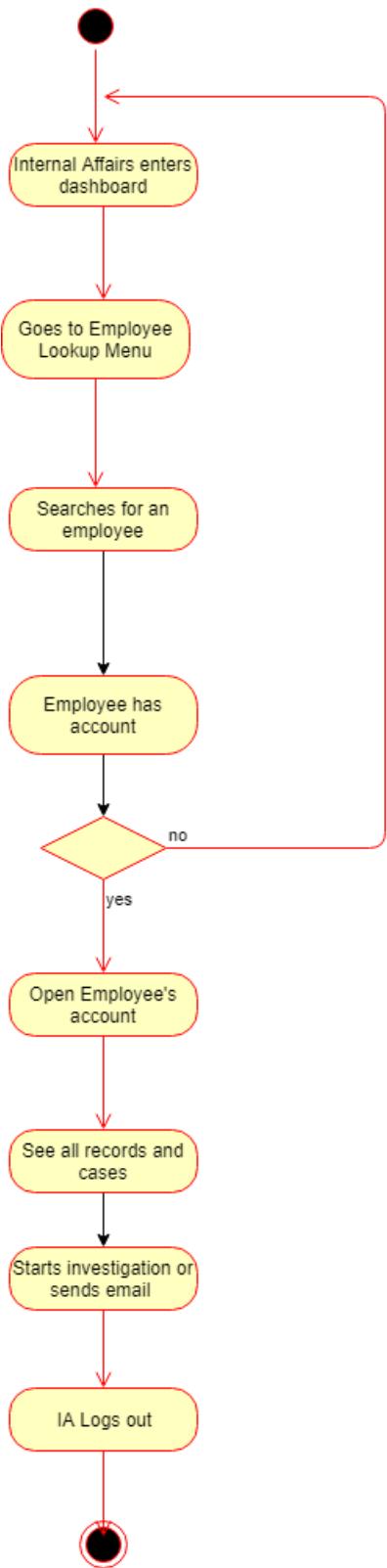
**AD\_14**

### **Police Officer View Cases Activity Diagram**



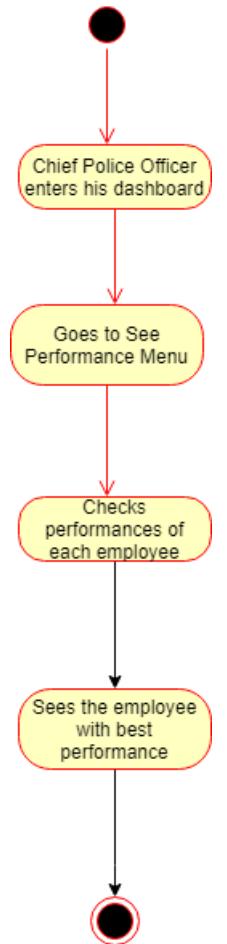
AD\_15

#### Internal Affairs Check Employees Activity Diagram:



AD\_16

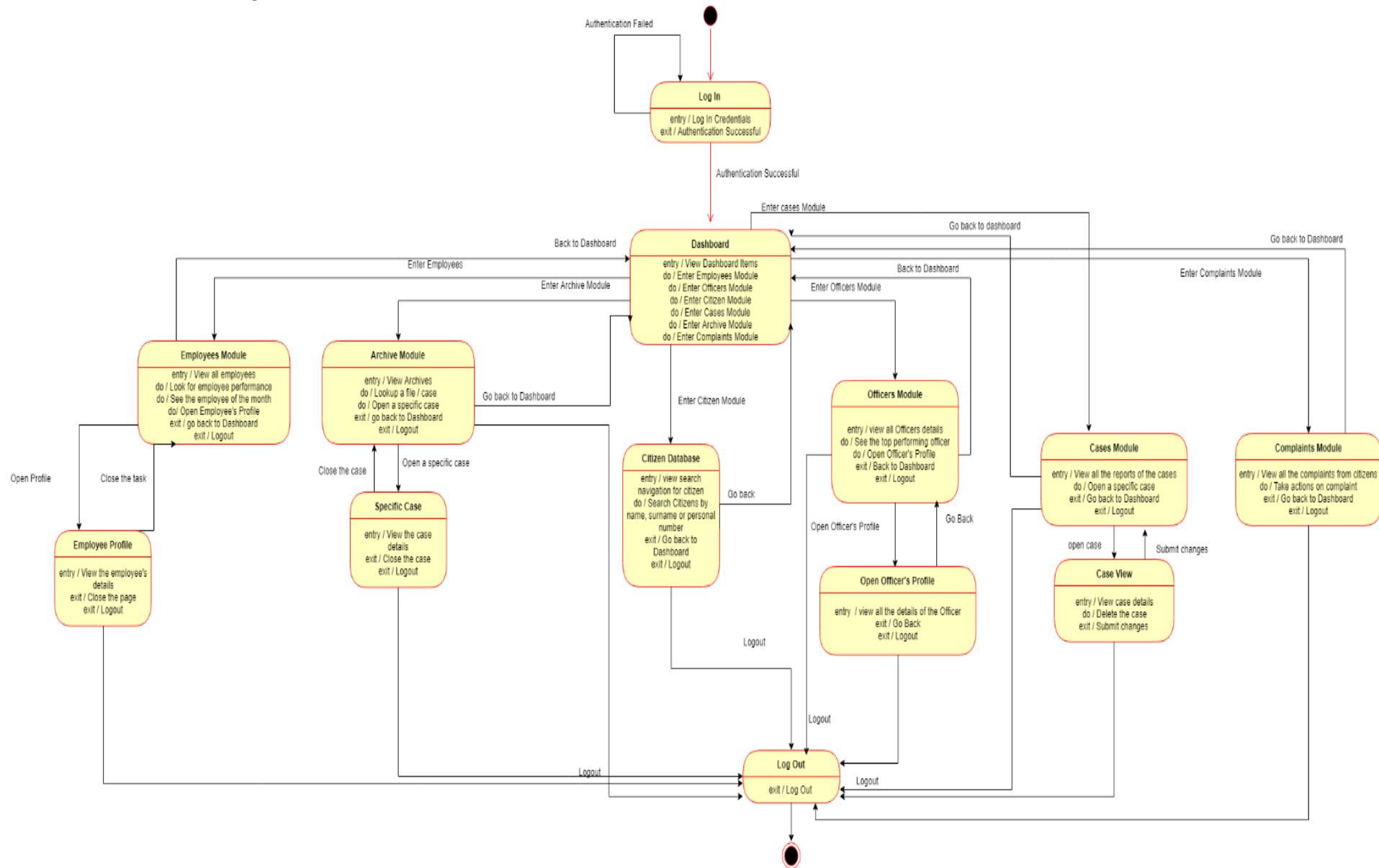
### Chief Police Officer Check Employee Performances Activity Diagram:



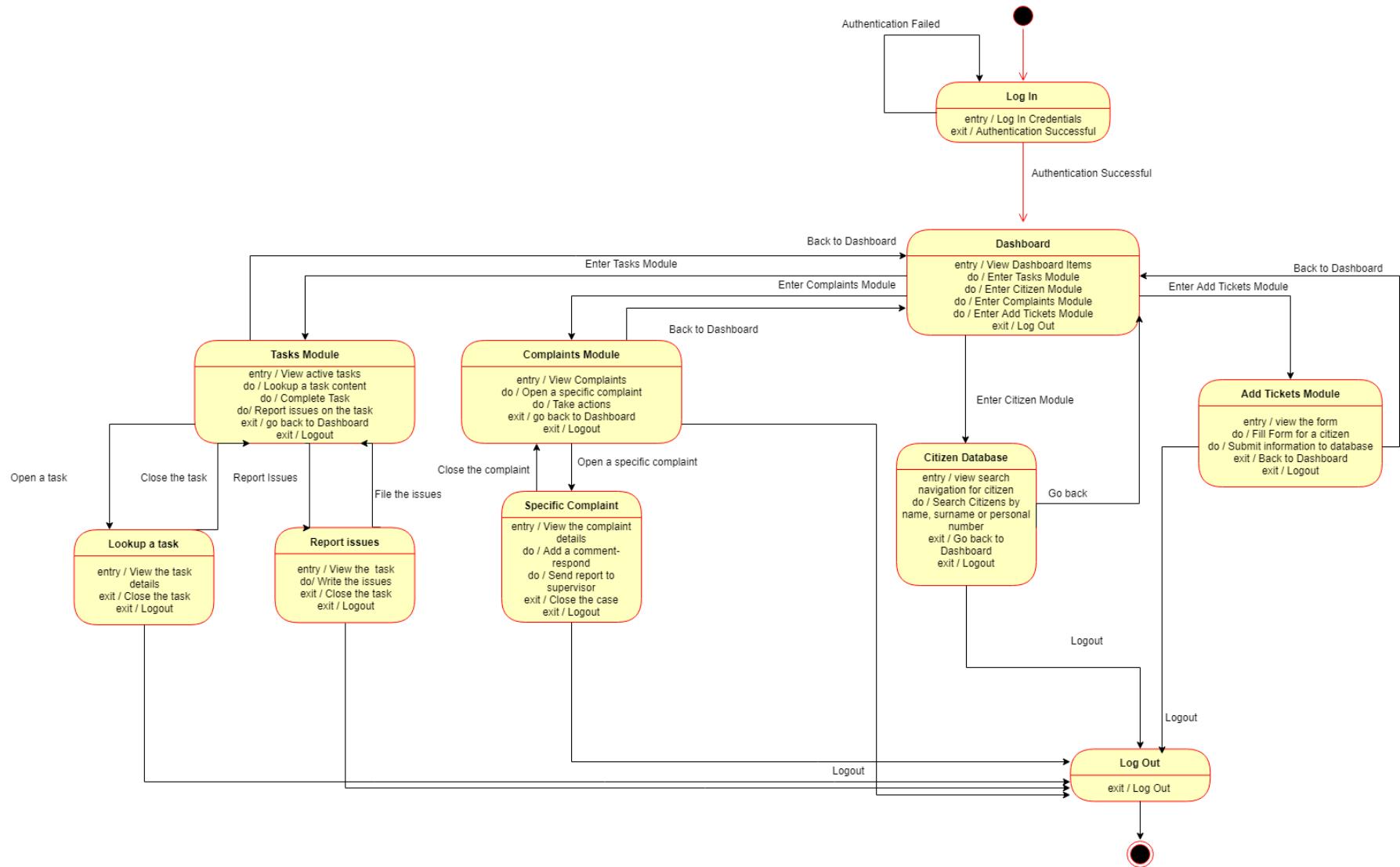
AD\_17

## 4.6 State Diagrams

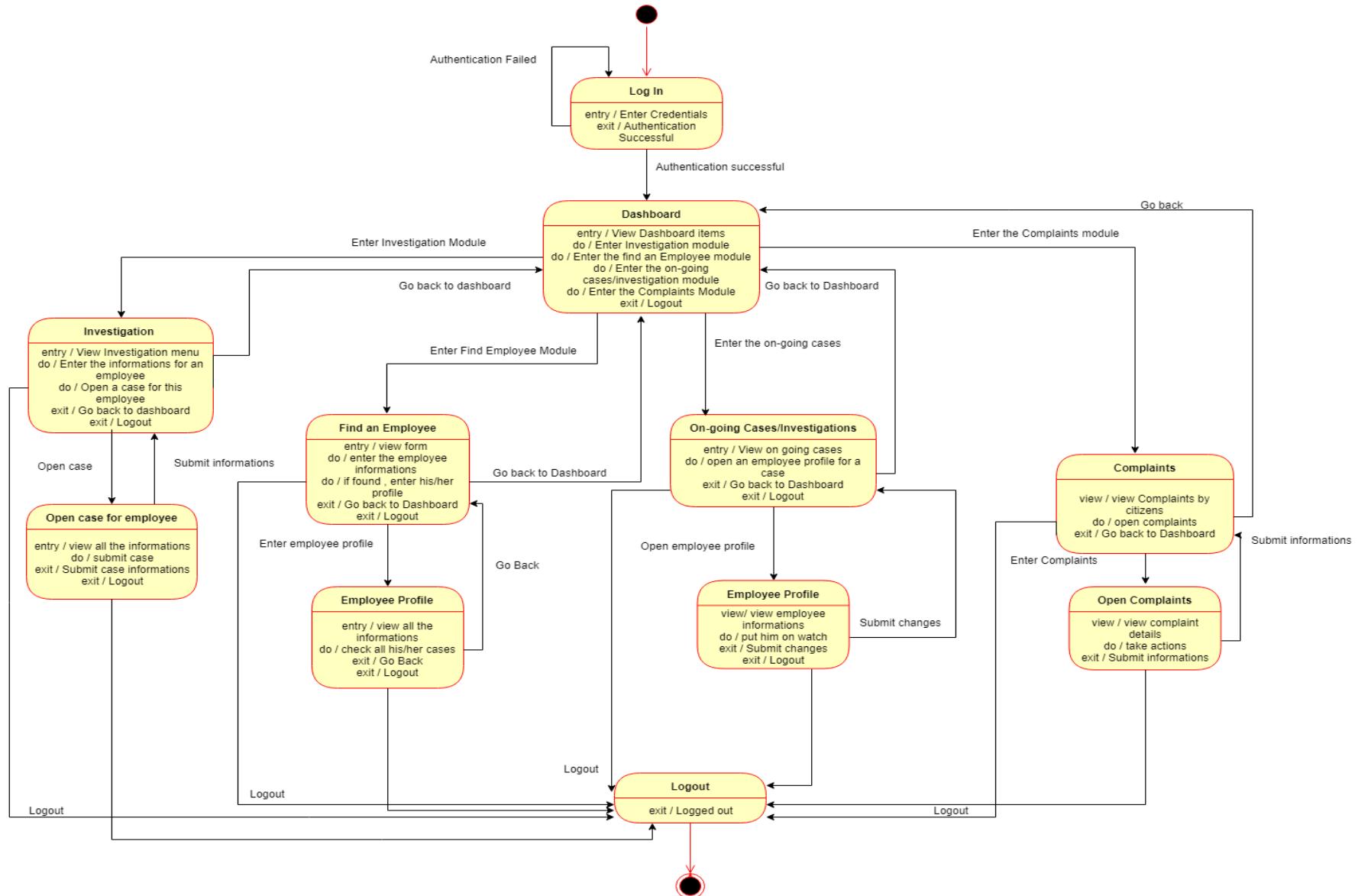
## Chief Police Officer State Diagram



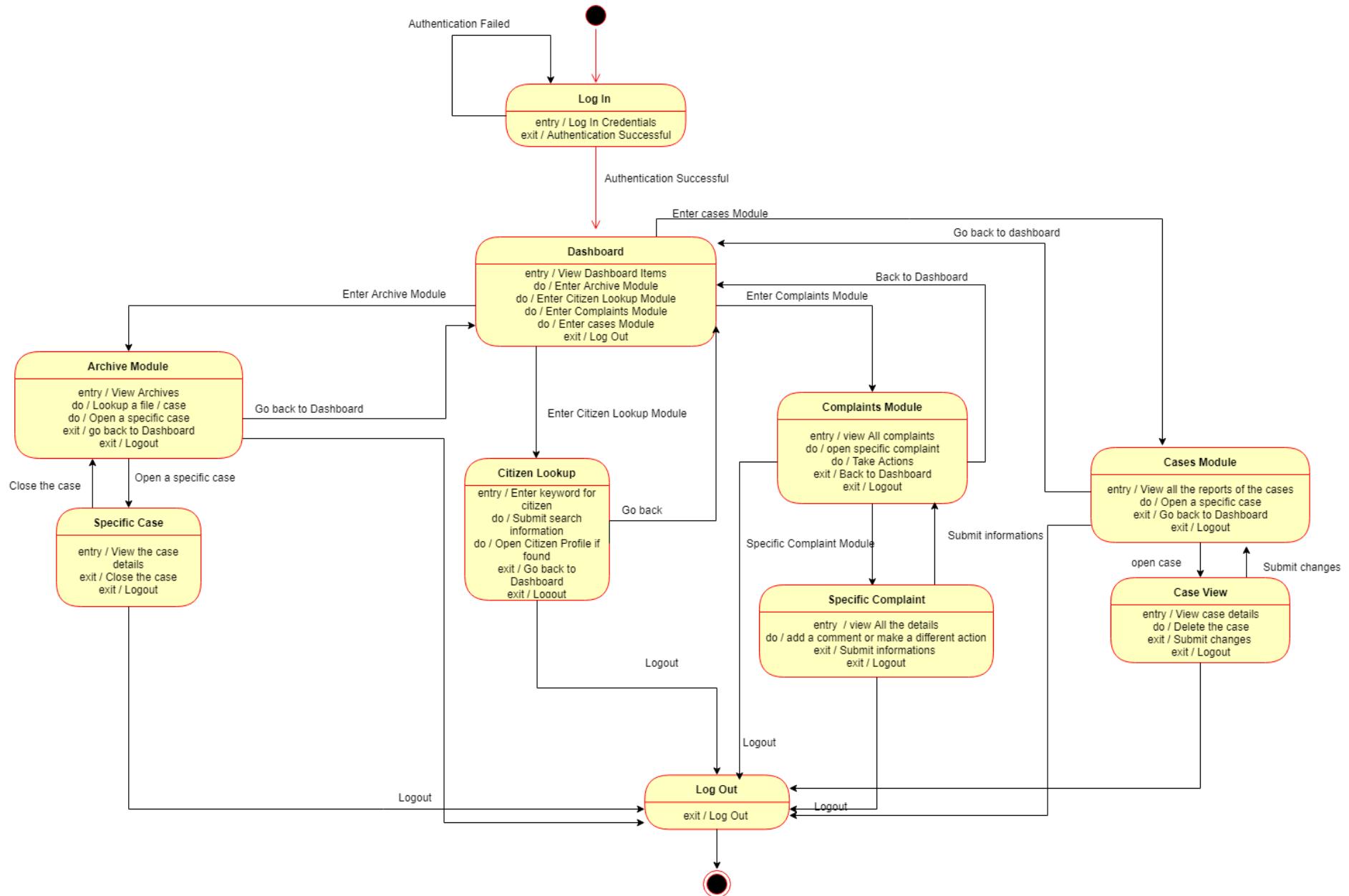
## Police Employee State Diagram



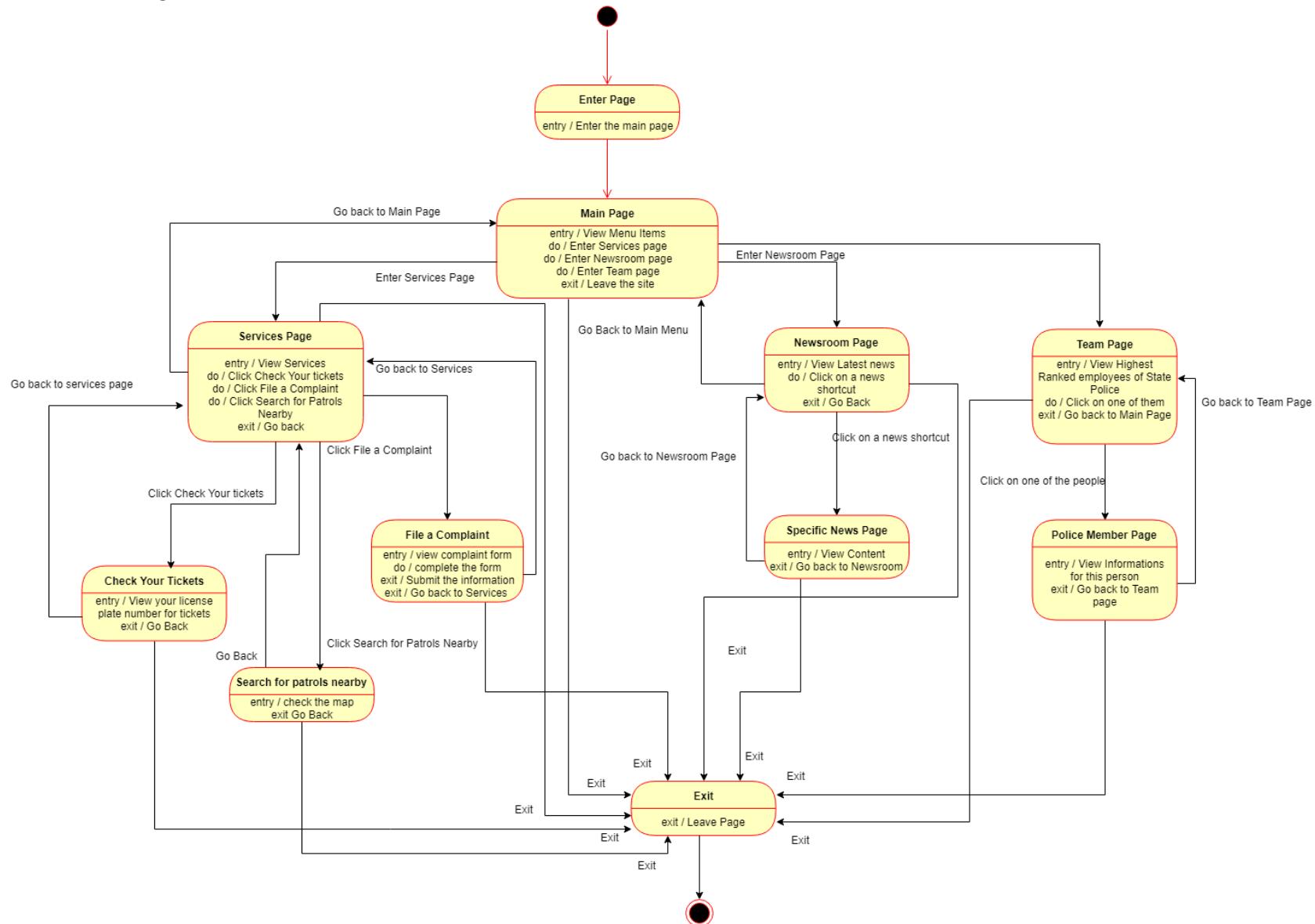
## Internal Affairs State Diagram



## Police Officer State Diagram

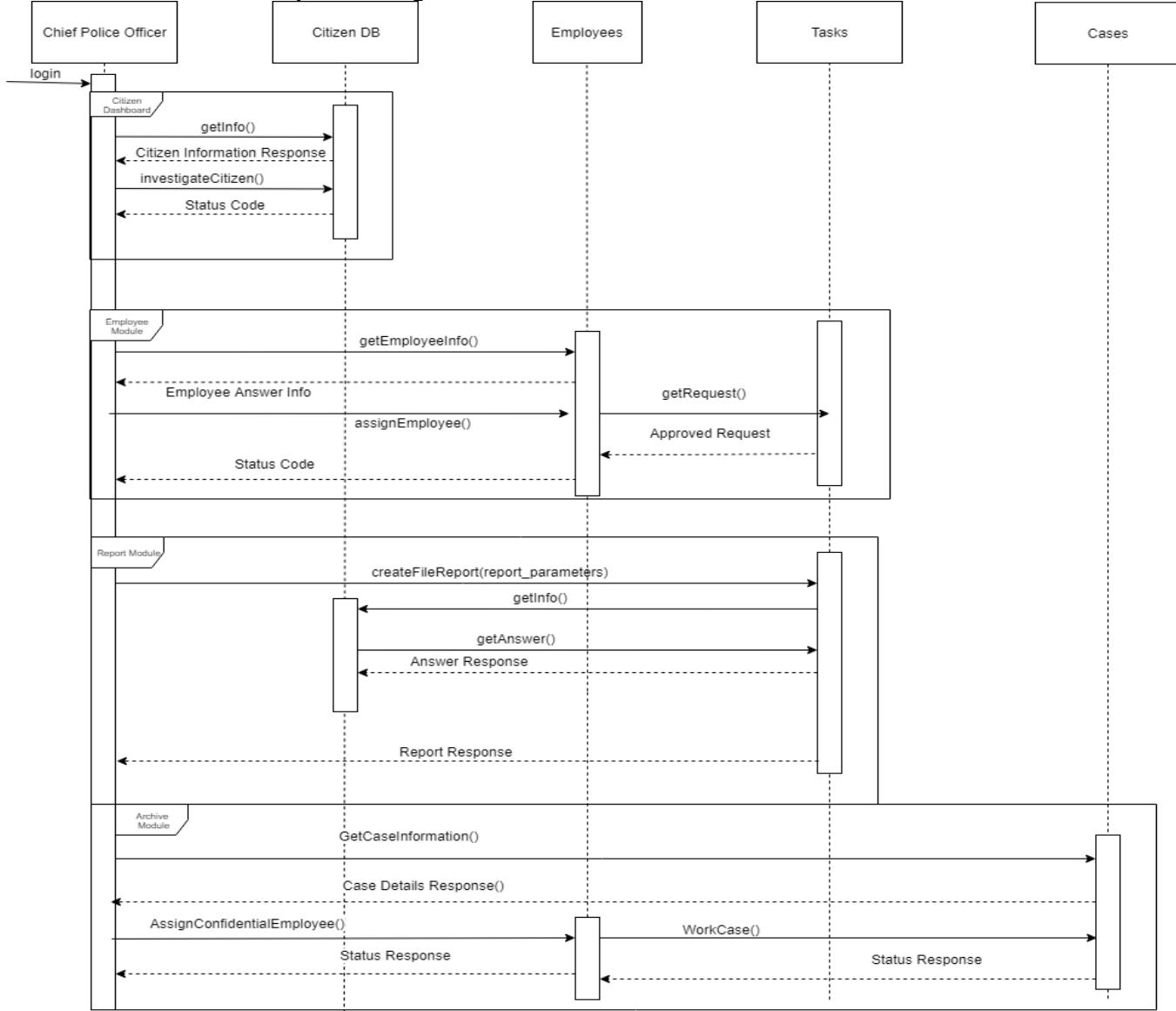


## Citizen State Diagram

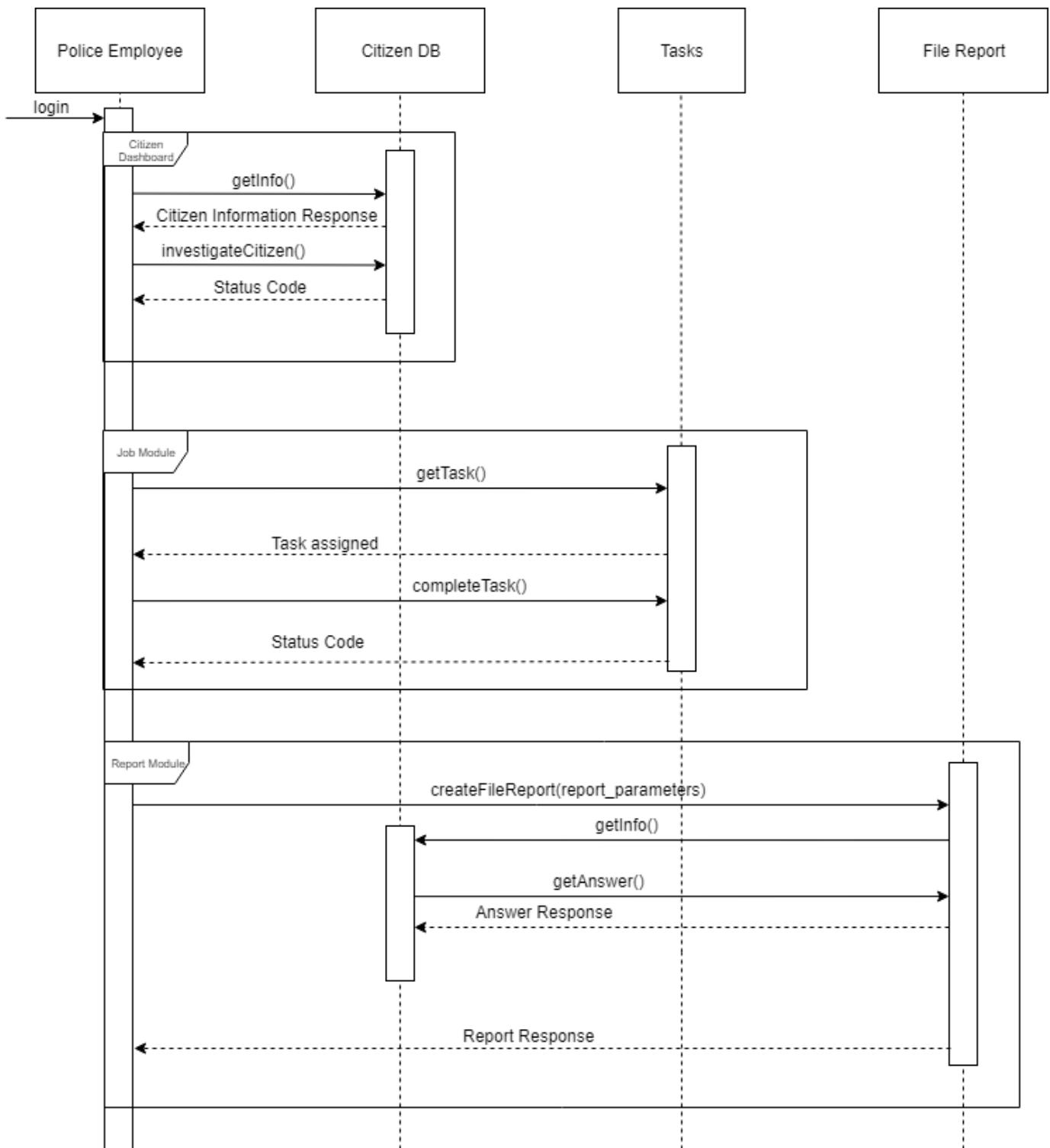


## 4.7 Sequence Diagrams

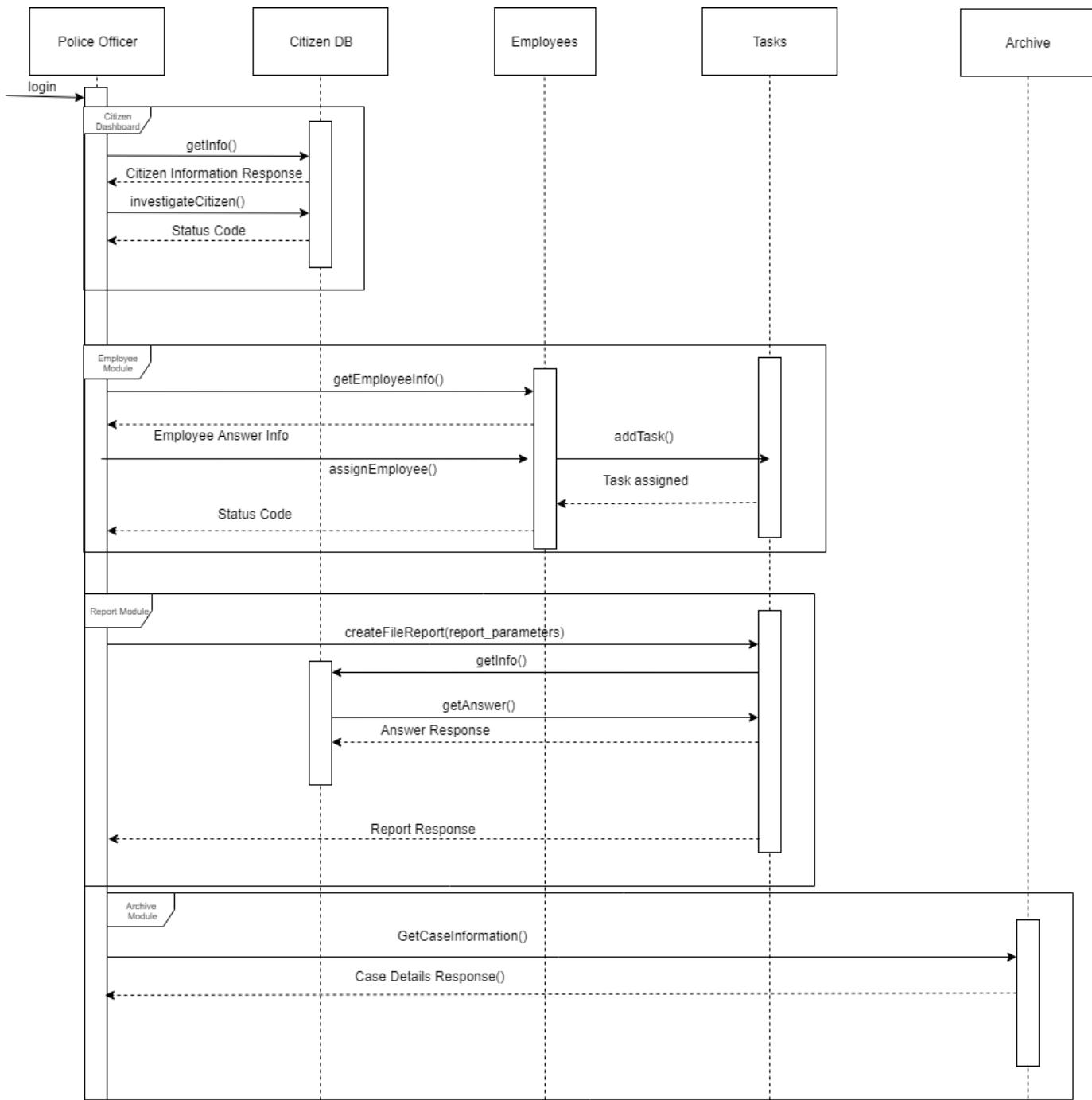
**Chief Police Officer Sequence Diagram SD\_01**



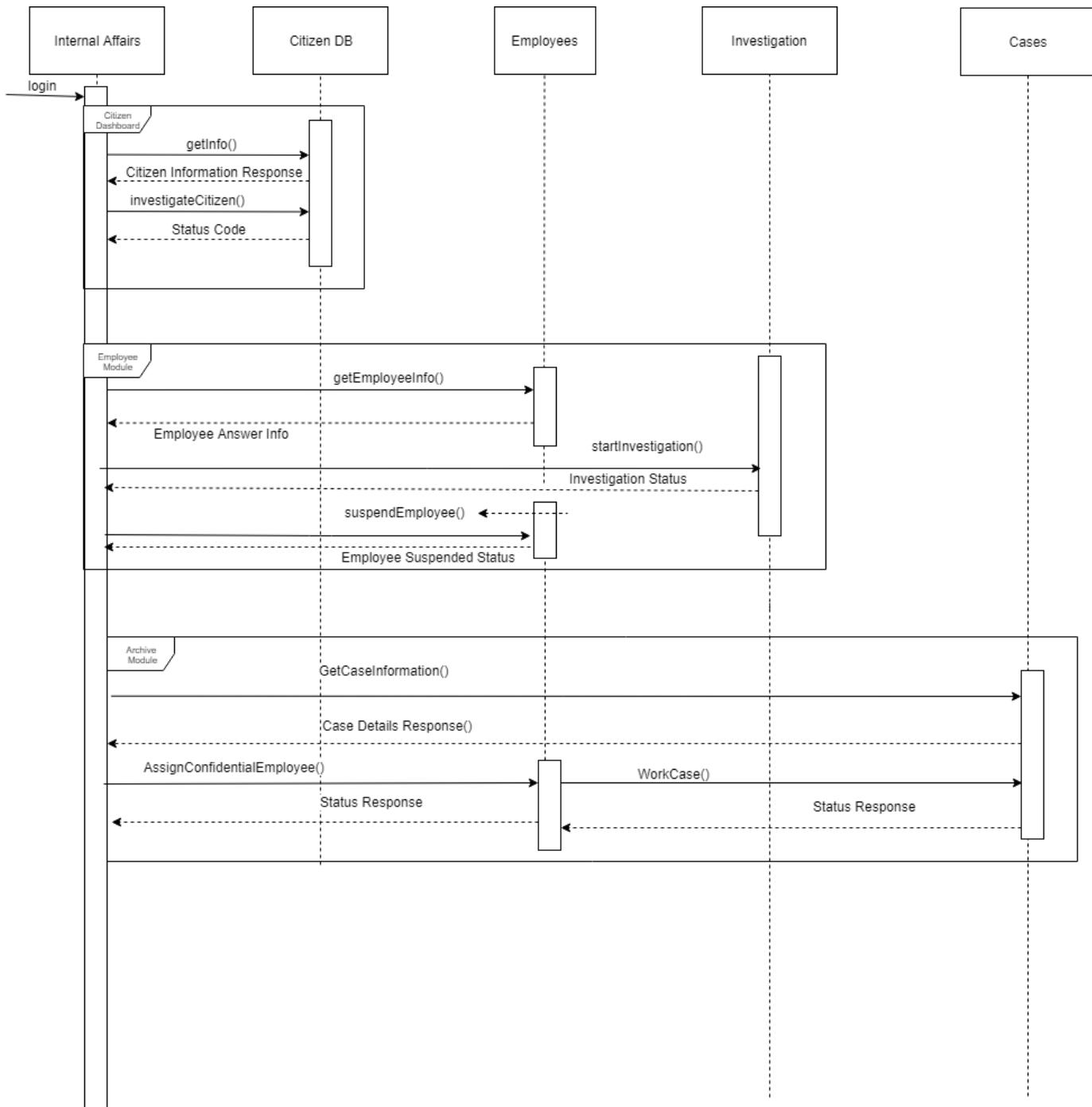
**Police Employee Sequence Diagram SD\_02**



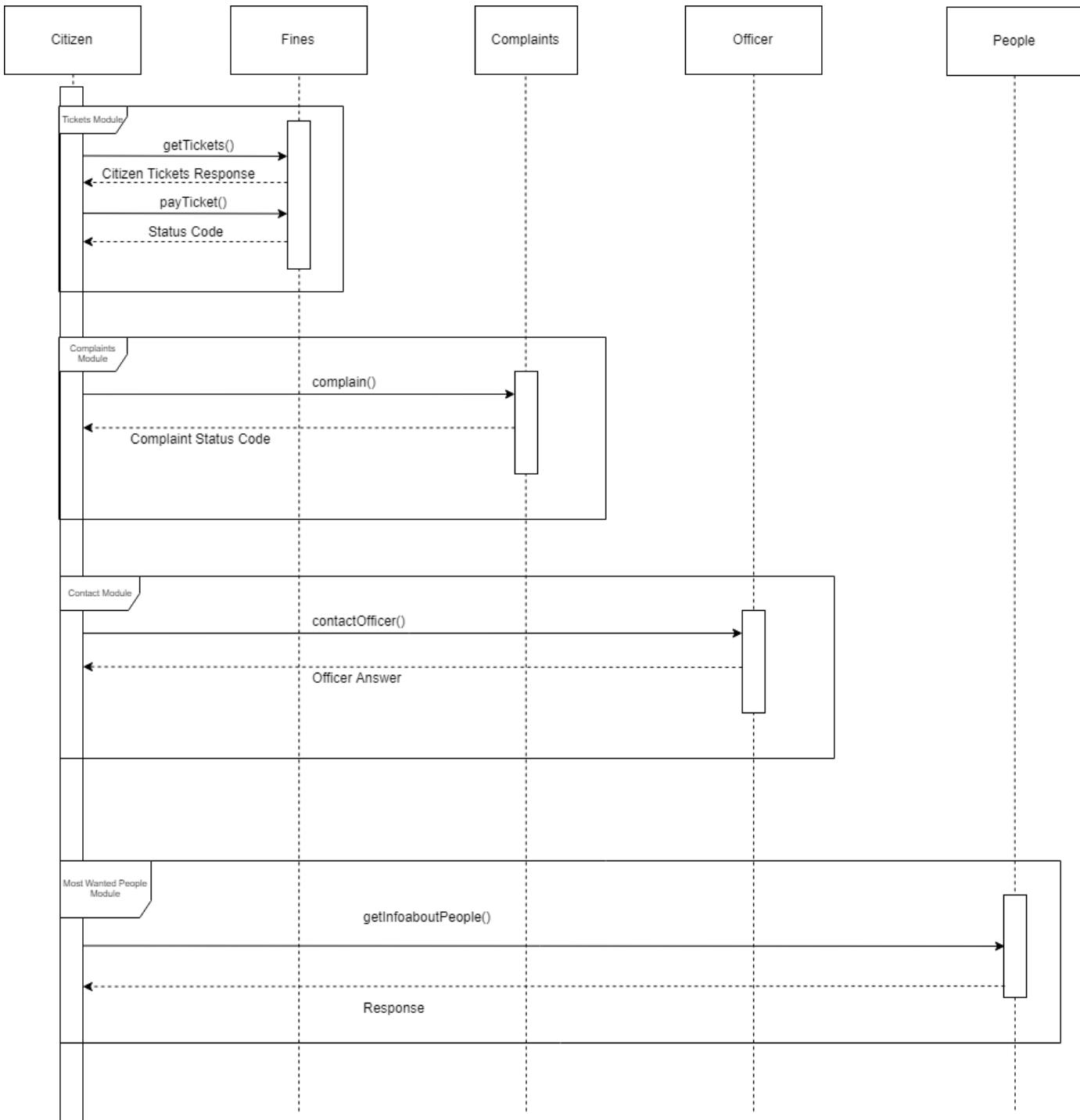
**Police Officer Sequence Diagram SD\_03**



## Internal Affairs Sequence Diagram SD\_04

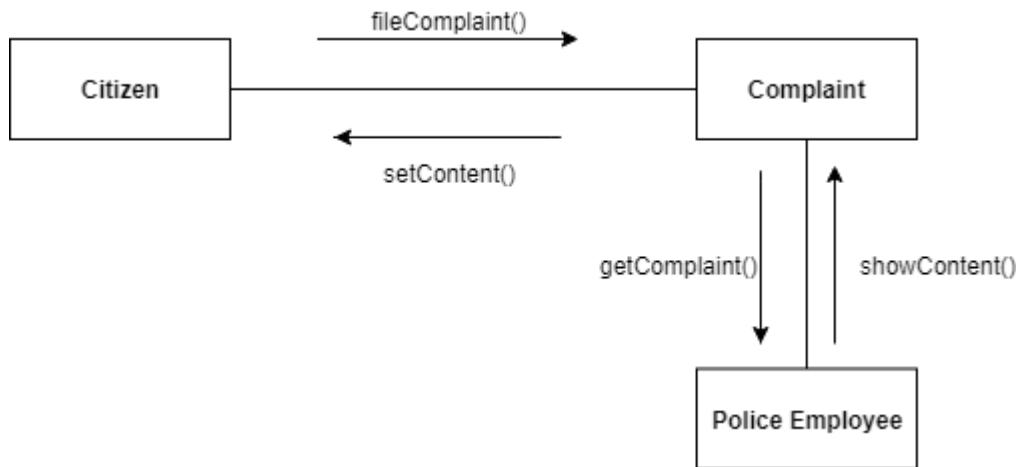


## Citizen Sequence Diagram SD\_05



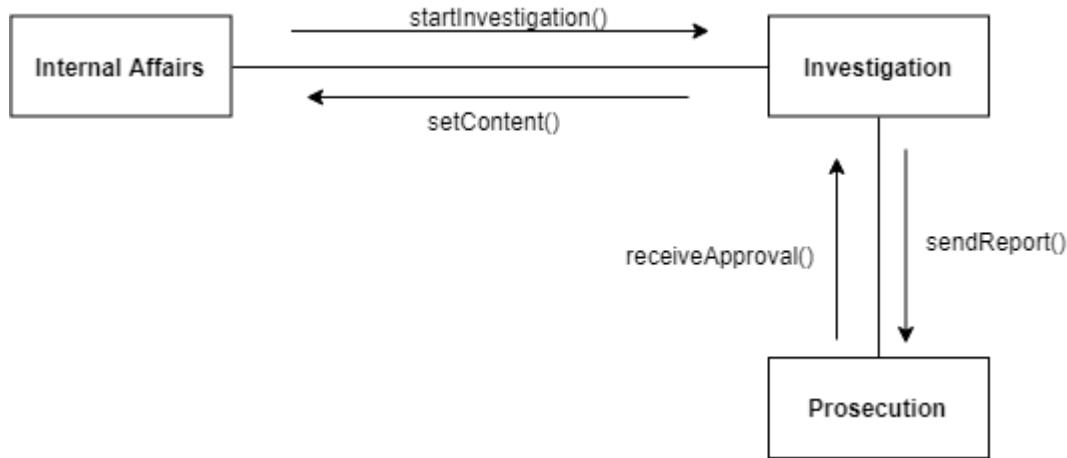
## 4.8 Collaboration Diagrams

Citizen-Police Employee Collaboration Diagram



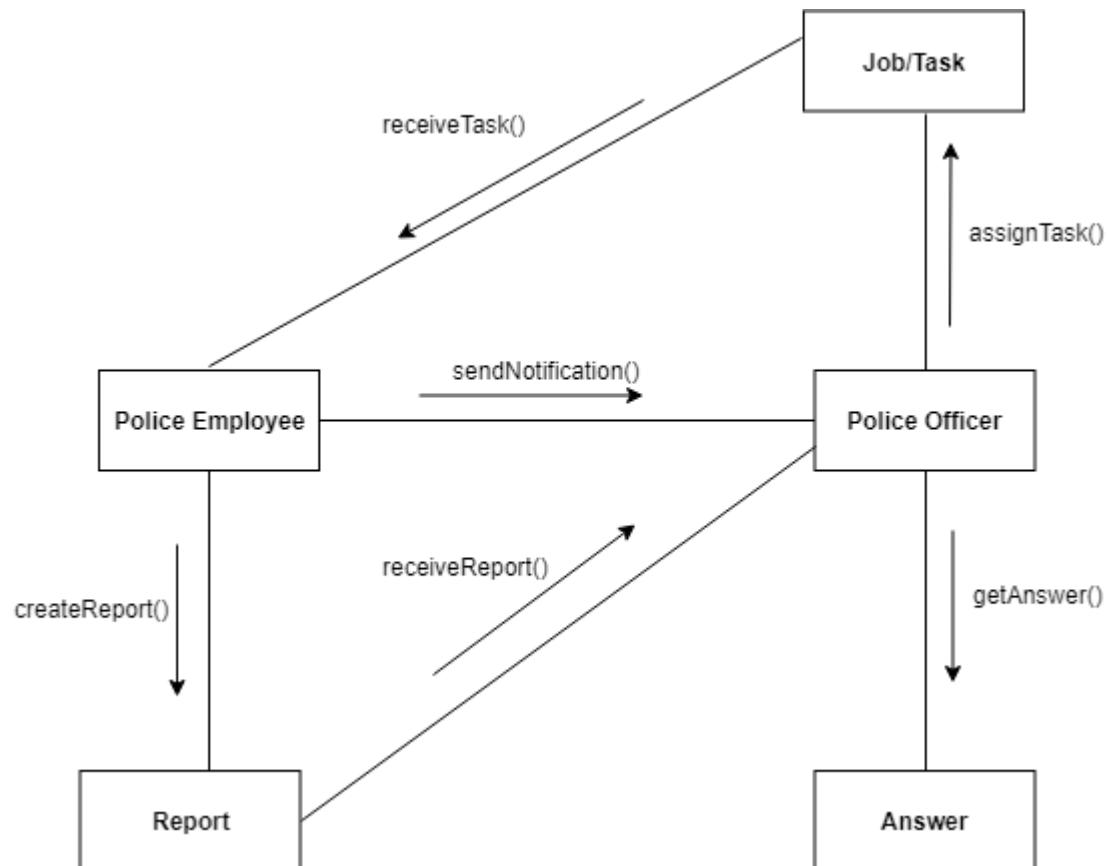
CD\_01, SeqDiagram\_02, SD\_05

Internal Affairs – Prosecution Collaboration Diagram



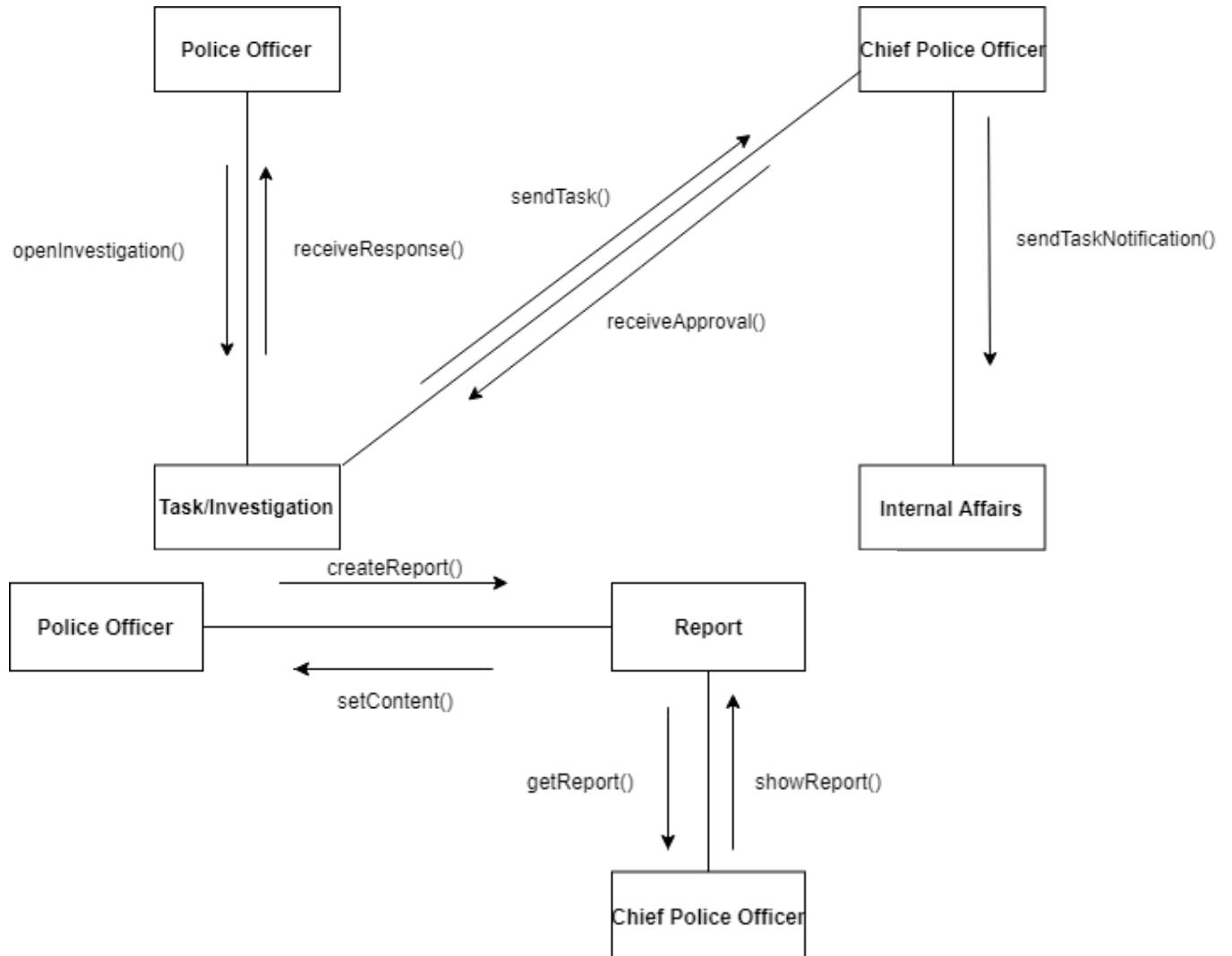
CD\_02, SD\_04

Police – Employee Police Officer Collaboration Diagram

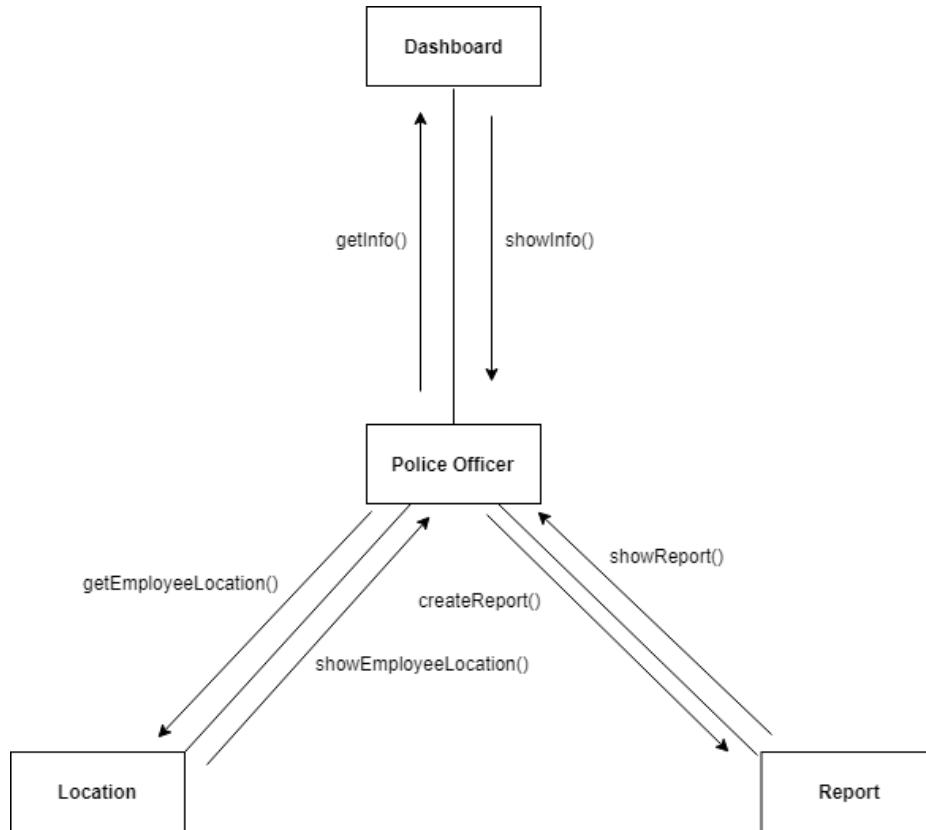


**CD\_03, SD\_02, SD\_03**

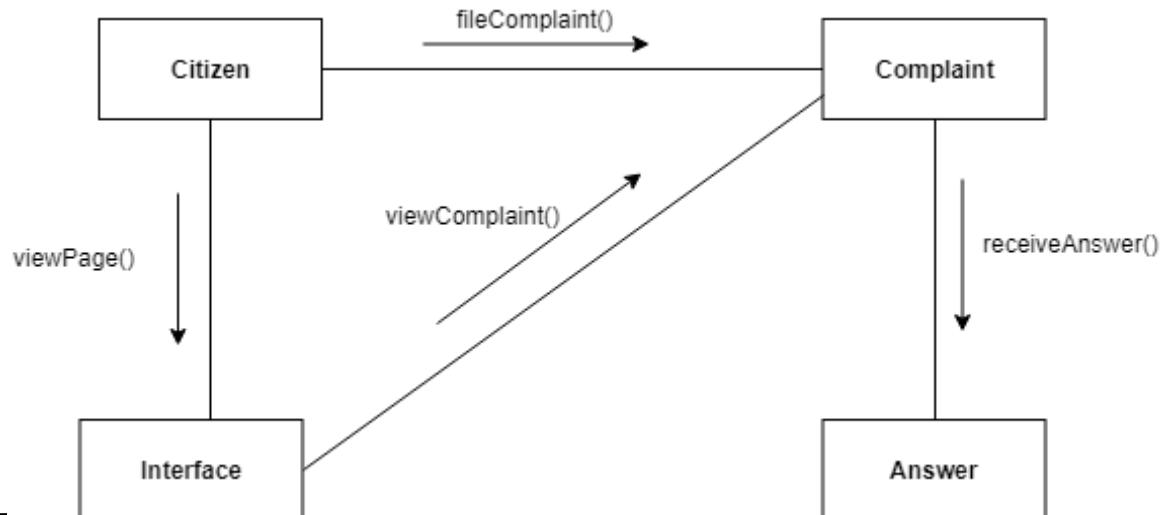
#### **Police Officer – Chief Police Officer – Internal Affairs Collaboration Diagram**



**CD\_04, SD\_01, SD\_02, SD\_04**



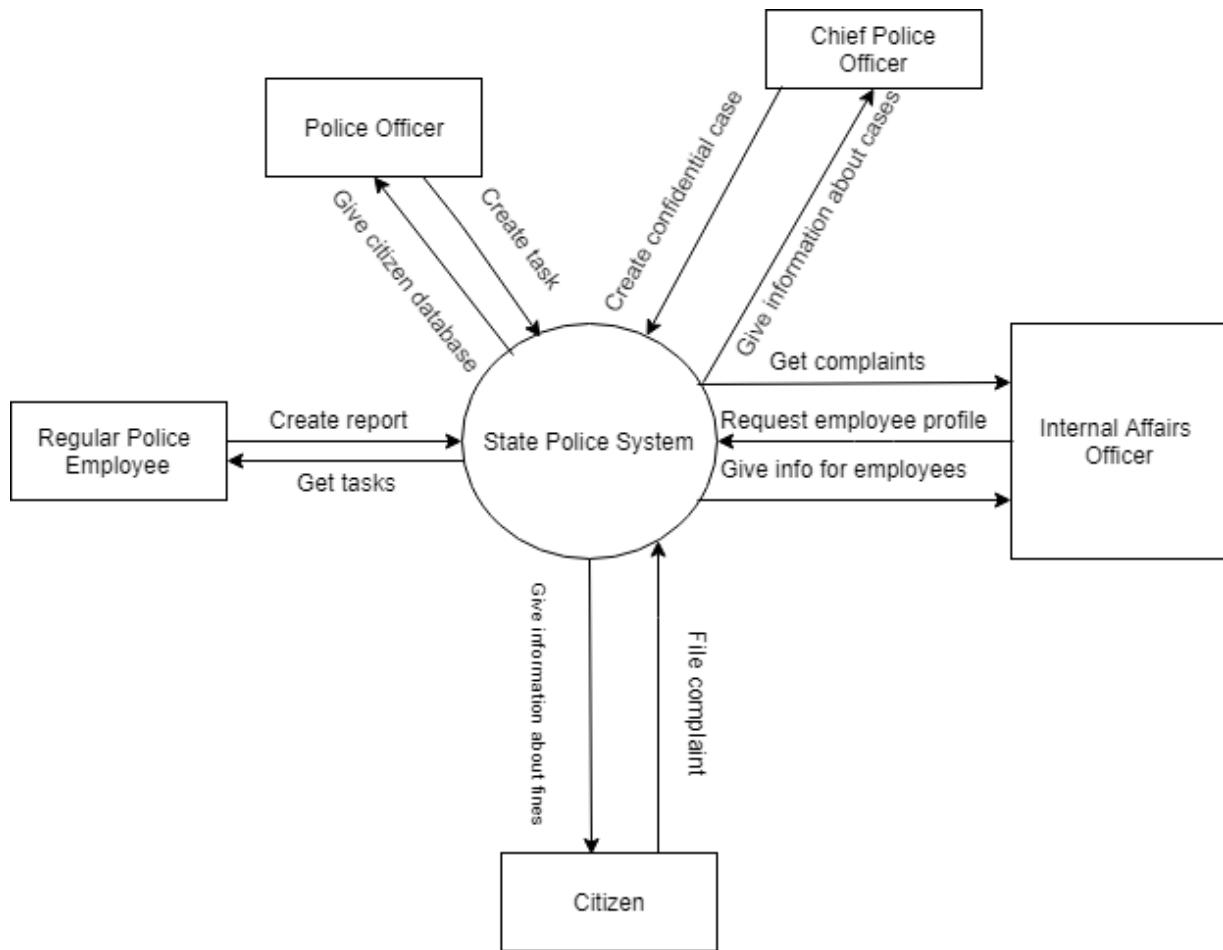
**Citizen Collaboration Diagram**



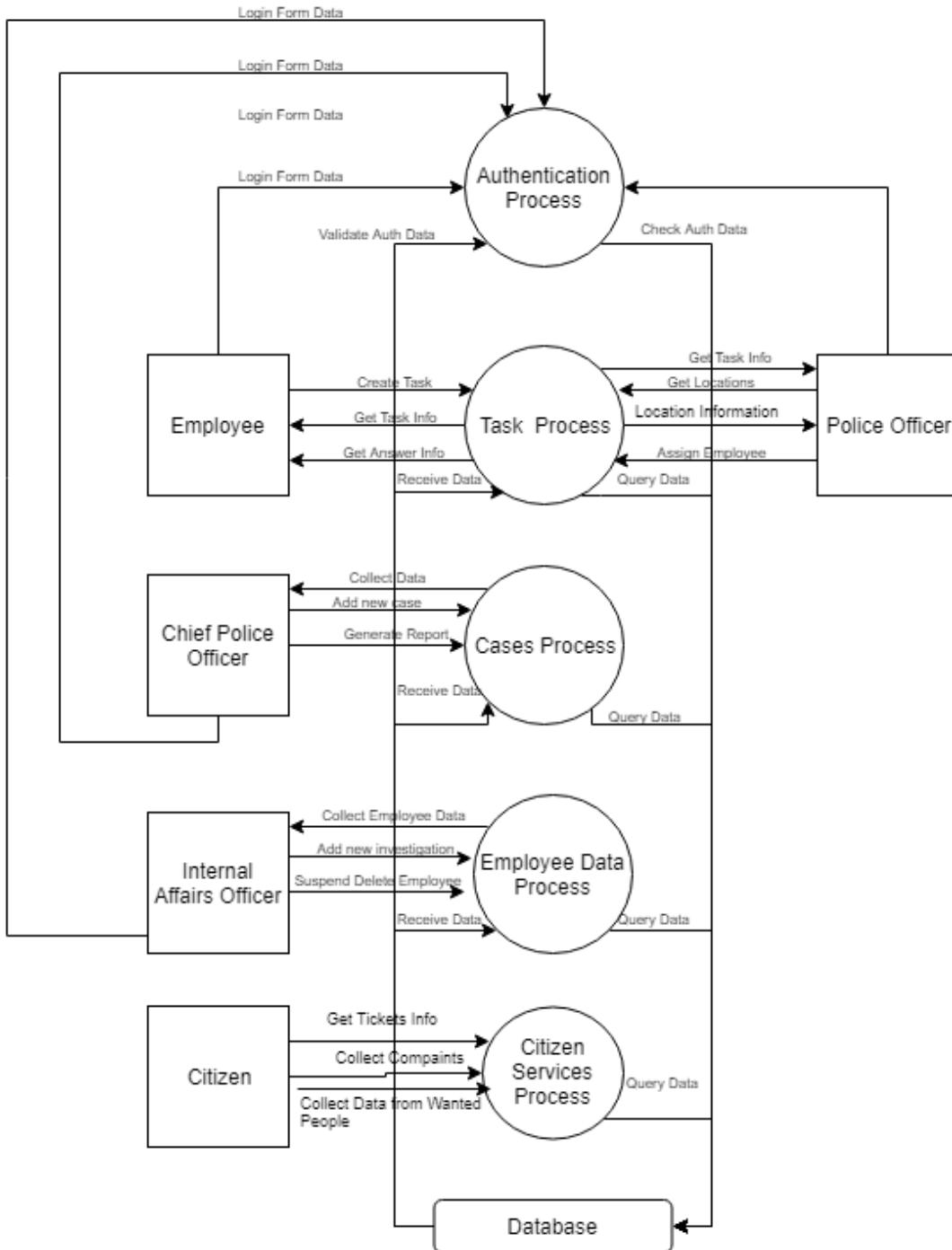
**CD\_05, SD\_05**

## 4.9 Data Flow Diagrams

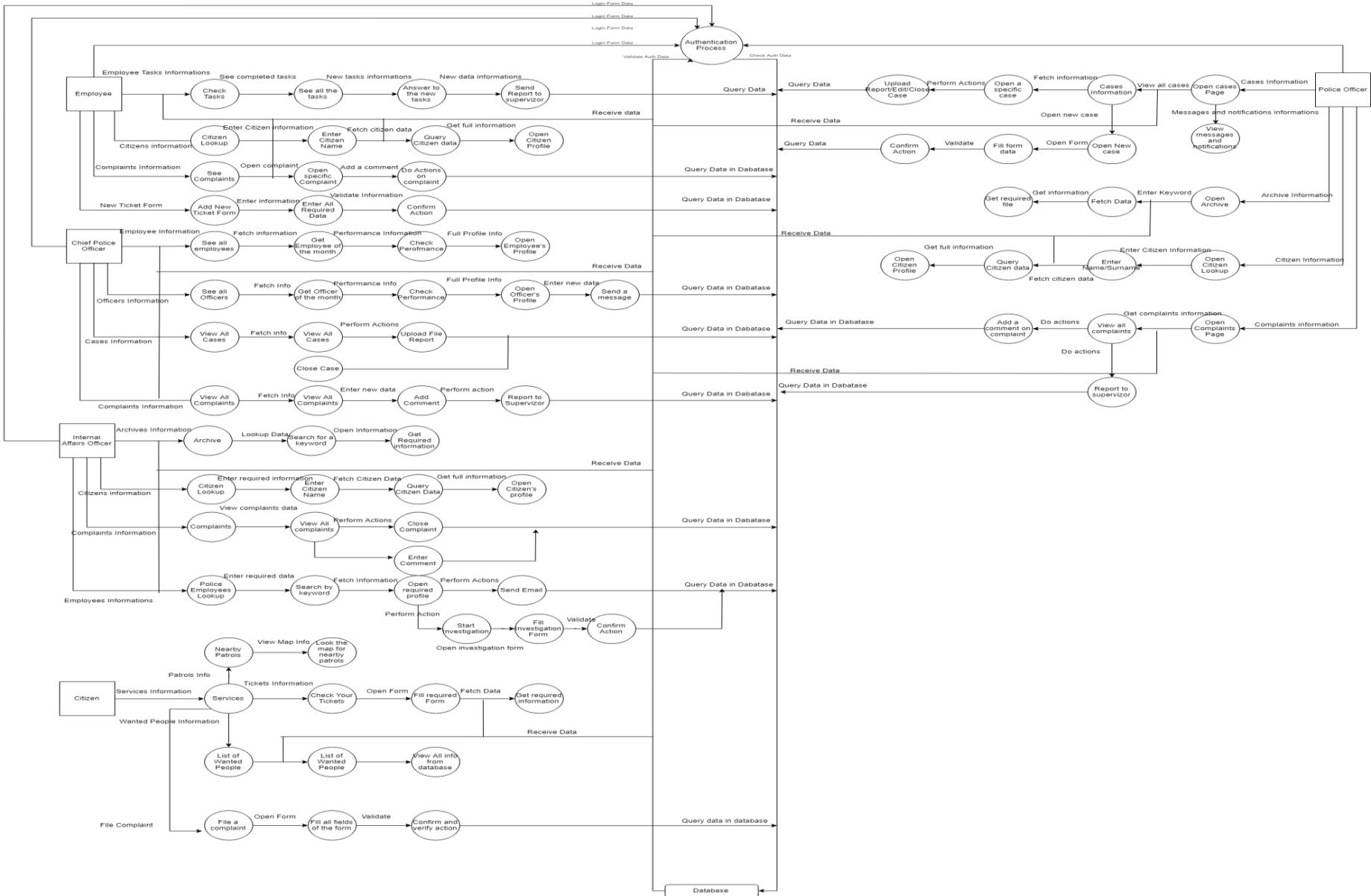
### Data Flow Level 0



### Data Flow Level 1

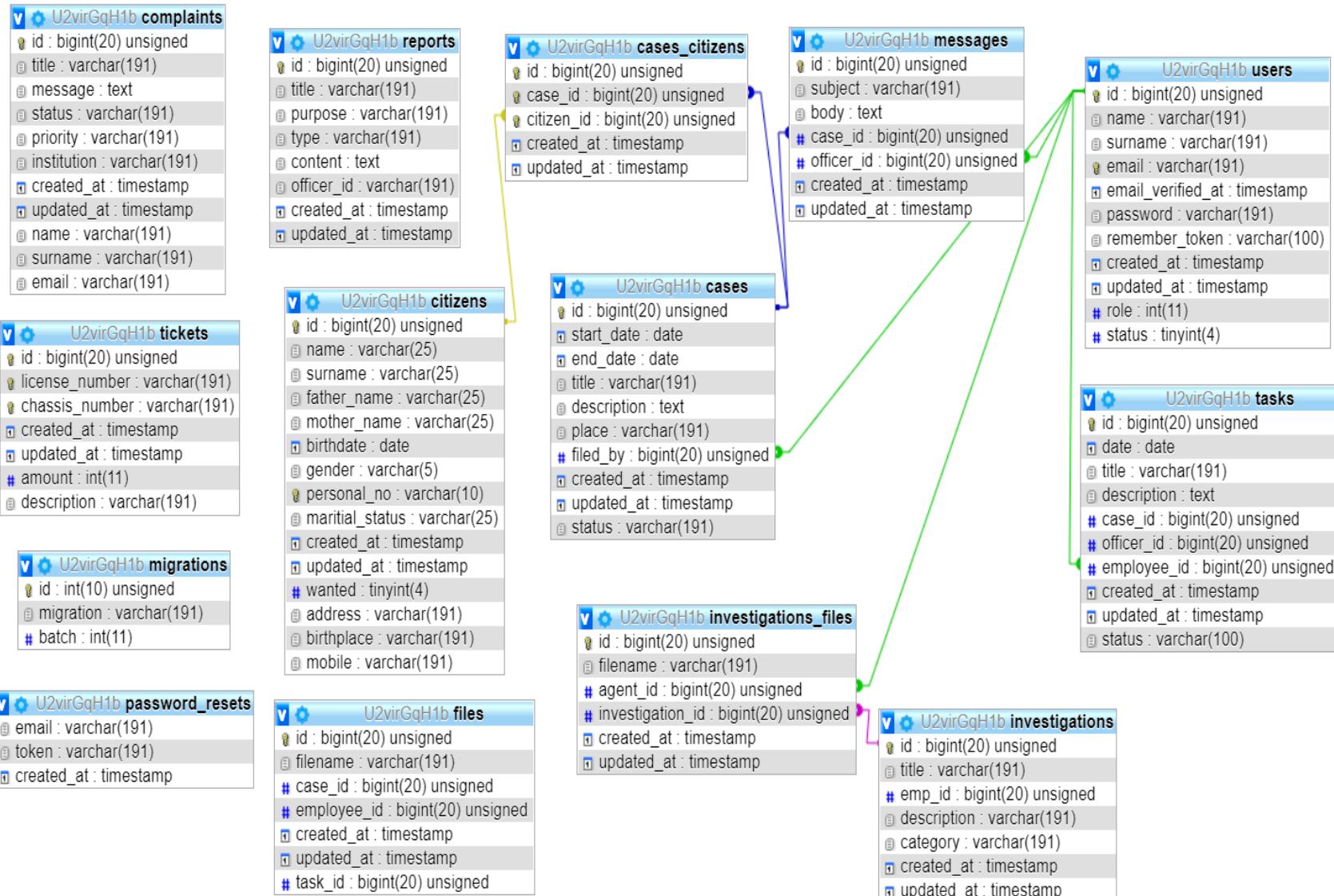


## Data Flow Level 2

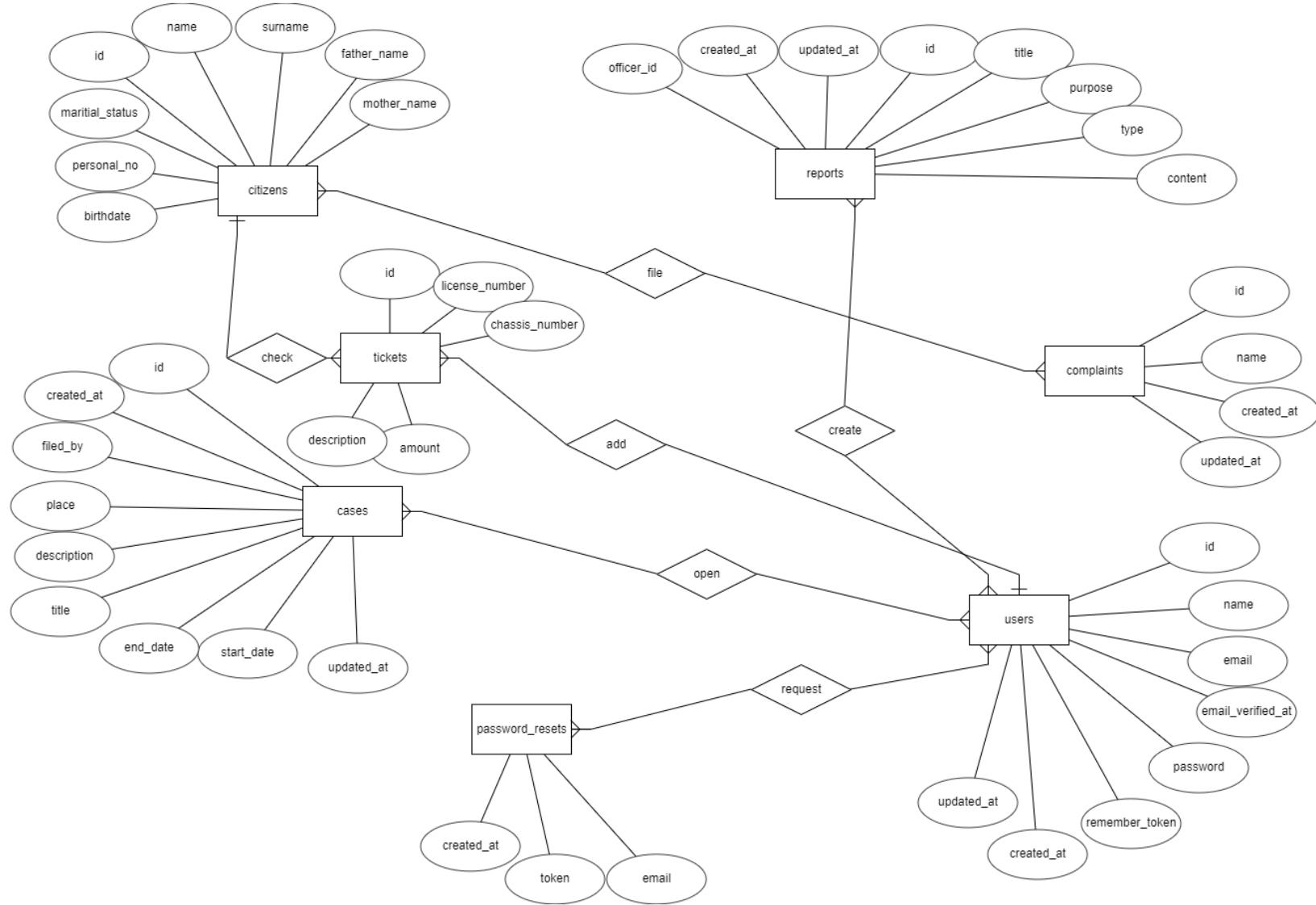


## 4.10 Entity Relation Diagram

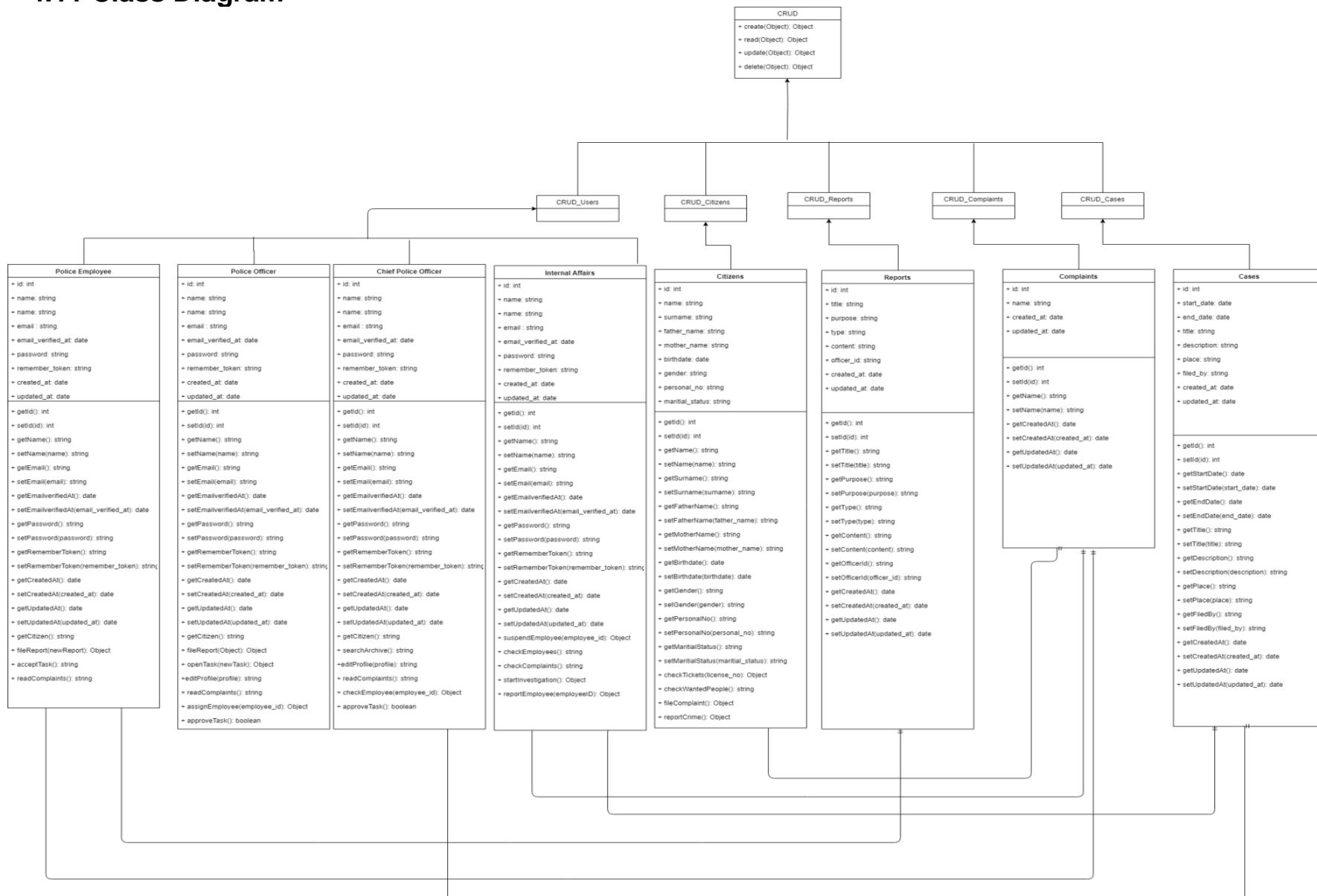
### 4.10.1 Database Schema



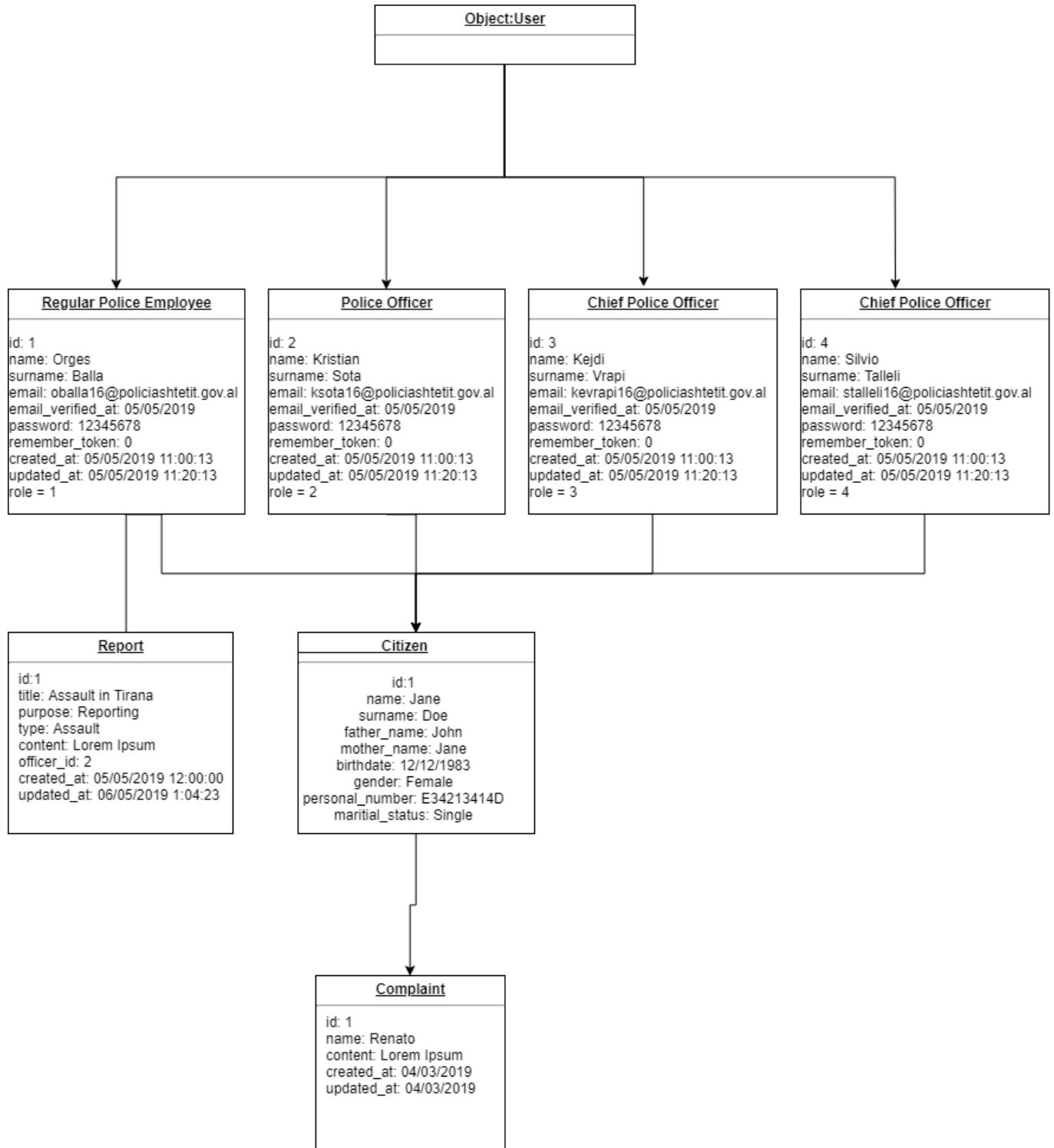
## 4.10.2 Entity Relation



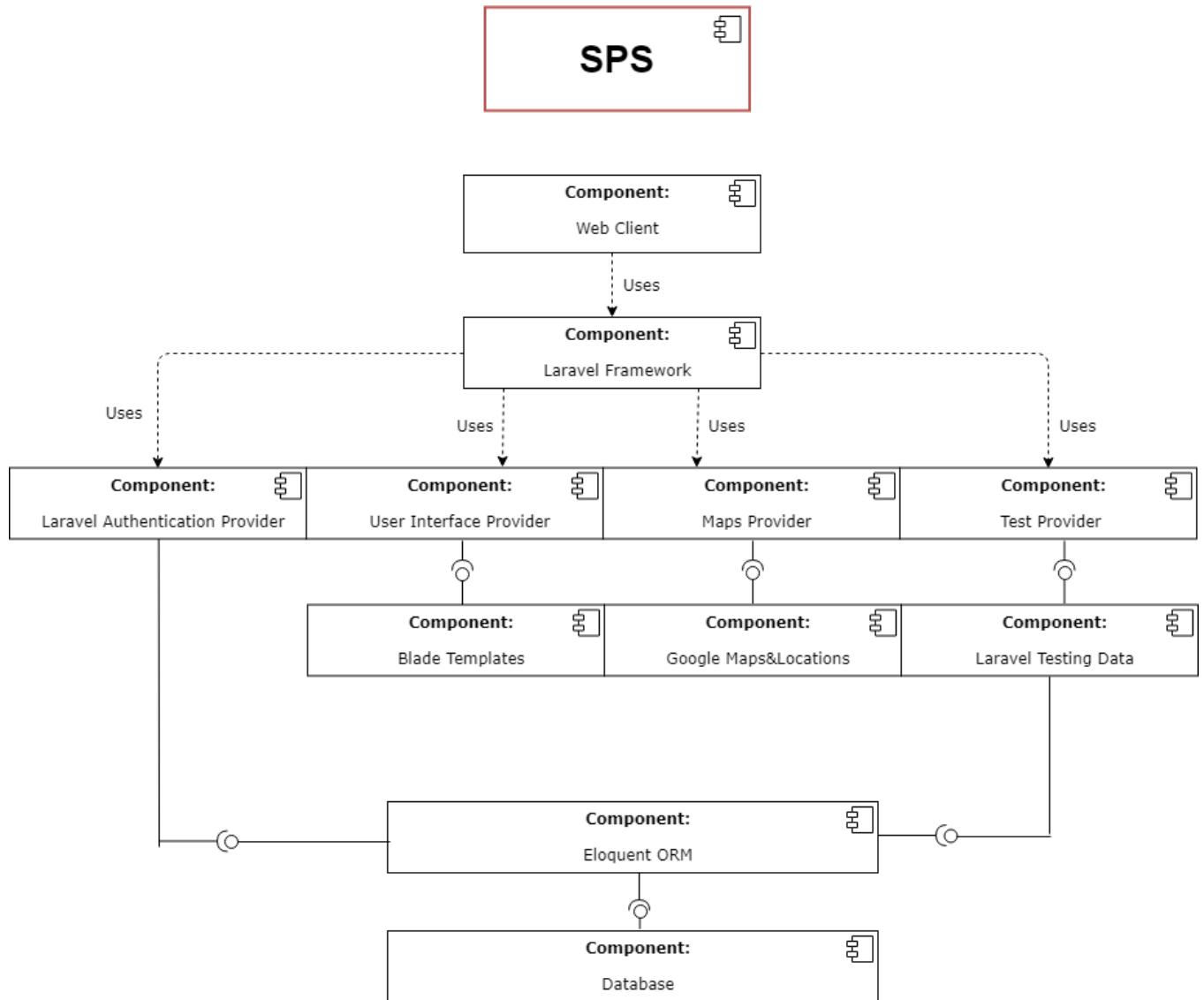
## 4.11 Class Diagram



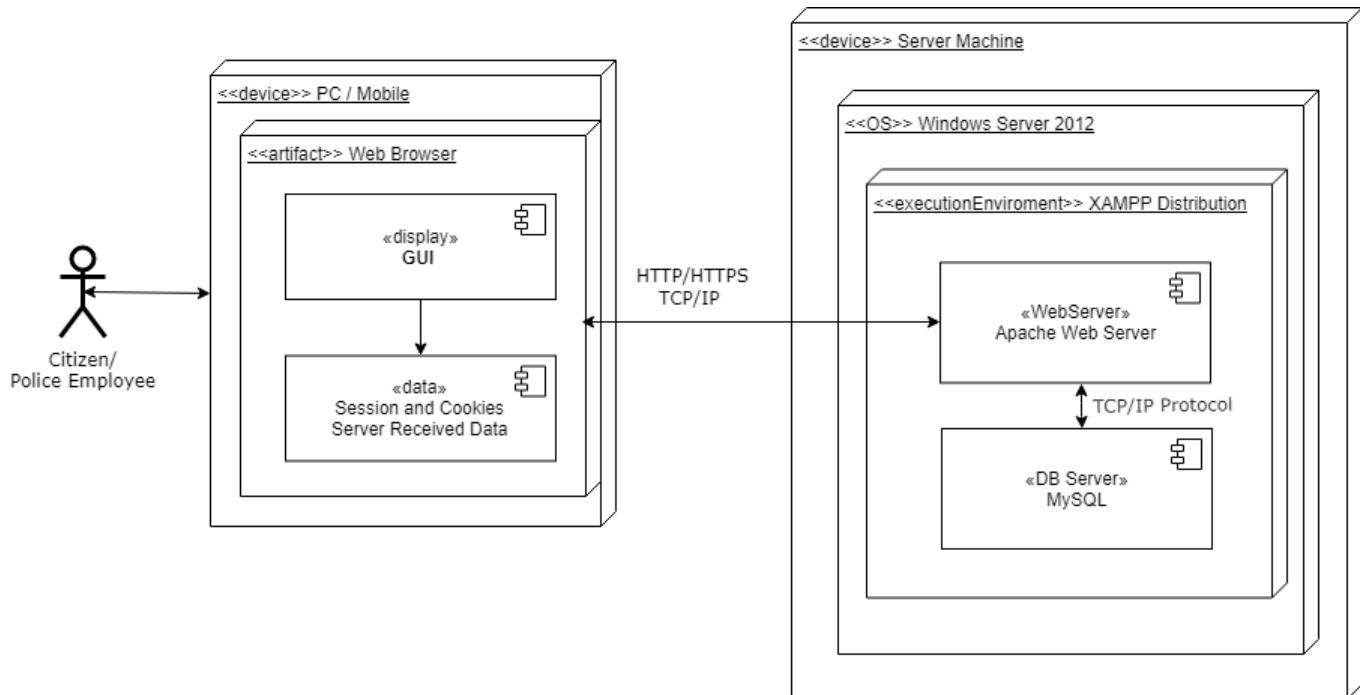
## 4.12 Object Diagram



## 4.13 Component Diagram



## 4.15 Deployment Diagram



## 5. Implementation Technology

SPS is a dynamic Web Application. For the creation of this software, we have combined Client-Side Scripting and Server-Side Scripting. The communication between the client and the server will take place via HTTP protocol.

The choice behind Laravel is mainly concentrated in the following points:

1. Permanence of the framework and its long-term support.
2. The framework promotes and enforces best practices, standardization and interoperability of applications.
3. The framework enforces an MVC model.
4. The framework makes testing and debugging very easy and comprehensive.
5. The framework supports very well mid to large scale web applications, which is the type of project that we aim to build.

For the Client-Side Scripting we have used the following technologies:

- HTML 5 (Hyper Text Markup Language)
- CSS 3 (Cascading Style Sheets)
- JavaScript
- Ajax (Asynchronous JavaScript and XML)
- jQuery (JavaScript Framework Library)
- Blade Template

For the user interface (UI) we have used several parts from free templates to make the design and the software intuitive and easier and more attractive for the user. The templates are of course modified to be used as according to our needs.

For the server-side scripting, we used Laravel Framework. The reasons were that it was easy to implement and can help with some features that we are going to use. Also, we had experience with it before.

Being a framework, Laravel gives of course object-oriented approach. The structure is the famous structure of MVC. We created Controllers for Tasks, Employees, Users, Cases, Citizens, Complaints. Each model was also represented by a class that referred to a table in database. By using Eloquent that is offered by Laravel, all the queries were executed in this way.

Validation was done using the middleware that Laravel offers. Each form is validated before being processed. Data is already escaped by Laravel Blade Template.

Since the software has five different actors: citizen, regular police, police officer, chief, internal affairs officer; middleware was used to restrict access.

We created 4 middleware layers, one for each of the police members while for citizen the guest middleware was already offered by Laravel.

Using the authentication layer provided to us, we restricted every access to only users that are logged in.

Routes and middleware made possible having different roles in the system and code being very functional and very concise. By applying middleware to every route, we made possible that every user access only what belongs to them.

Security was very important for us since it is a high-risk system. The Laravel Blade Template uses {{ }} symbol which escapes every input data that is given. Validation was done client-side and also server-side. The only files accepted are pdf.

Laravel offers a form token that makes sure the form is only submitted in this server and not by other sources.

Season Hijacking was solved by using a special key generated by Laravel. That key is hidden and Laravel checks that key before proceeding, therefore no season hijacking is possible.

Using Eloquent, every data stored in database is read as plain data and not html or JavaScript. Therefore, XSS is not possible.

The database was hosted on a free MySQL hosting website called: [remotemysql.com](http://remotemysql.com)

Libraries used:

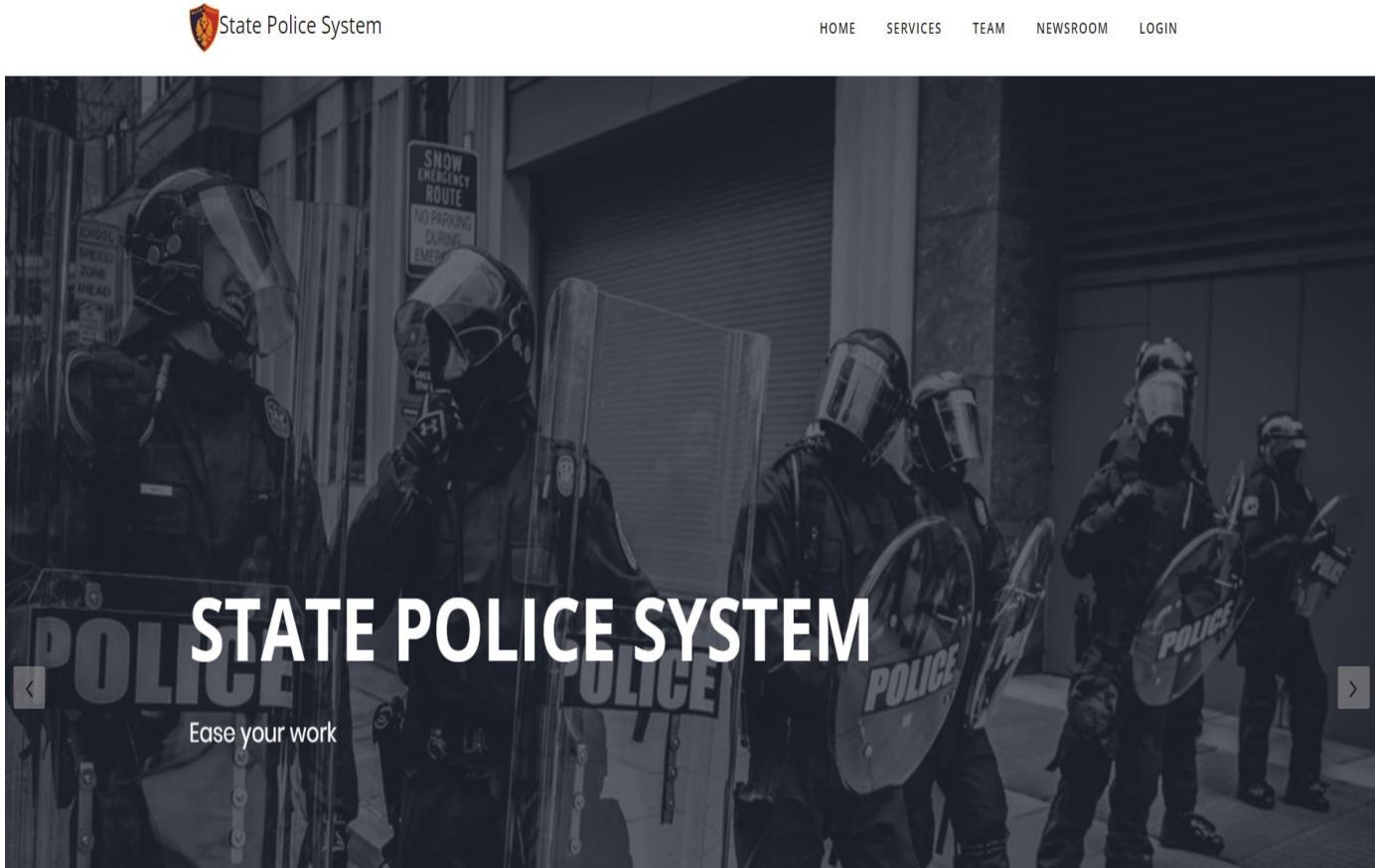
1. Zipper: <https://github.com/Chumper/Zipper>
2. Algolia Driver: <https://www.algolia.com>
3. Laravel Scout: <https://laravel.com/docs/5.8/scout>
4. Leaflet Maps: <https://github.com/Leaflet/Leaflet>

Version Control was handled using GitHub. The repository can be found at:  
<https://github.com/oballa16/SPS>.

The implemented software is shown below:

## Main Page View

---



## Misioni

"Garantimi i një mjedisi të sigurtë për komunitetin nëpërmjet policimit me standartet më të larta të performancës, krijuarit të një kulture bashkëkohore manaxhimi dhe të mbështeturës meinfrastrukturën më të përparuar"

“Së bashku për një komunitet më të sigurt”  
Synimi strategjik aftagjatë i Policisë së Shtetit është krijuar i një mjedisi sa më të sigurt për shoqërinë shqiptare, i cili do të sjellë përmirësim në cilësinë e jetës së qytetarëve duke e bërë Shqipërinë një vend të dëshirueshëm për të punuar e jetuar.



## OUR SERVICES

Explore some of the services found in the online State Police System



### Check Your Tickets

See if there are any parking tickets that you are not aware of



### Stay safe at anytime

Check all the list of wanted people in our country located in our database



### File a Complaint

For every irregularity or corruption case, please send us your complaint



### Search for Patrols nearby

Check the map for patrols nearby you

# Team Page

State Police System

HOME SERVICES TEAM NEWSROOM LOGIN

TEAM

Home > Team

## OUR TEAM

Meet out the legal vigilantes.

Kristian Sota  
Internal Affairs  
f t i in

Orges Balla  
Chief Police Officer  
f t i in

Kejdi Vrapi  
Police Officer  
f t i in

Erban Danaj  
Police Officer  
f t i in

Silvio Talelli

Renato Muho

## Services Page



Services List

Welcome to the State Police Services System

**CHECK YOUR TICKETS**

**LIST OF WANTED PEOPLE**

**FILE A COMPLAINT**

**SEARCH FOR PATROLS NEARBY**



## NEWS

Check out some recent news posts.

13 May  
350 x 214  
Powered by HTML.COM

SPS      5k 15

Më datë 13.05.2019, u arrestua në flagrancë shtetasi P.S., vjeç 19, banues në Tiranë, pasi u kap duke drejtuar pa leje drejtimi, motorin tip "Vespa".

14 May  
350 x 214  
Powered by HTML.COM

SPS      5k 15

Më datë 14.05.2019, u arrestua në flagrancë shtetasi V.D., vjeç 21, pasi mjeti tip "Opel" të cilin ai drejtonte, dyshohet të jetë i vjadur.

17 May  
350 x 214  
Powered by HTML.COM

SPS      5k 15

Më datë 17.05.2019, u arrestua në flagrancë shtetasi A.D., vjeç 21, pasi dyshohet te ketë qëlluar me gelës papagall në kokë një kalimtar të rastësishtëm.

**CONTACT US**

Address: Deshmoret e 4, Shkurti, Kompleksi Green Park

Email: policia@shitetit.gov.al

Phone: 129

Fax: +355 4 224 4204

**USEFUL LINKS**

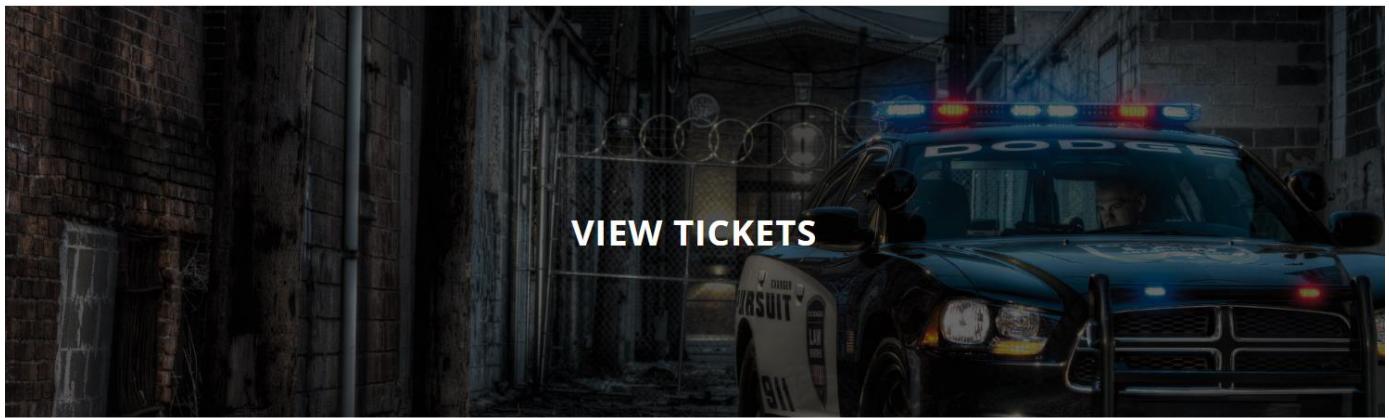
> Services

> Team

> News

**RECENT NEWS**

Më datë 13.05.2019, u arrestua në flagrancë shtetasi P.S., vjeç 19, banues në Tiranë, pasi u kap duke drejtuar pa leje drejtimi, motorin tip "Vespa".  
13 May 2019



Enter License Plate Number:  Enter Chassis Number:

ID	License Plate Number	Chassis Number	Amount of Ticket(ALL)	Description	Date received
1	AA311SR	AA311SR	4000	Test tets tsetset	2019-05-13 00:00:00

[Home](#) / [Services](#) > [Most Wanted People](#)



**Name:** Bradly  
**Father's Name:** Christ  
**Surname:** Heaney  
**Birth date:** 28-10-2003



**Name:** Kiley  
**Father's Name:** Kory  
**Surname:** Ritchie  
**Birth date:** 12-09-1983



**Name:** Ryley  
**Father's Name:** Verner  
**Surname:** Waelchi  
**Birth date:** 09-12-1987

## File a complaint



HOME SERVICES TEAM NEWSROOM LOGIN

Title

Where would you like to address?

Priority

Message

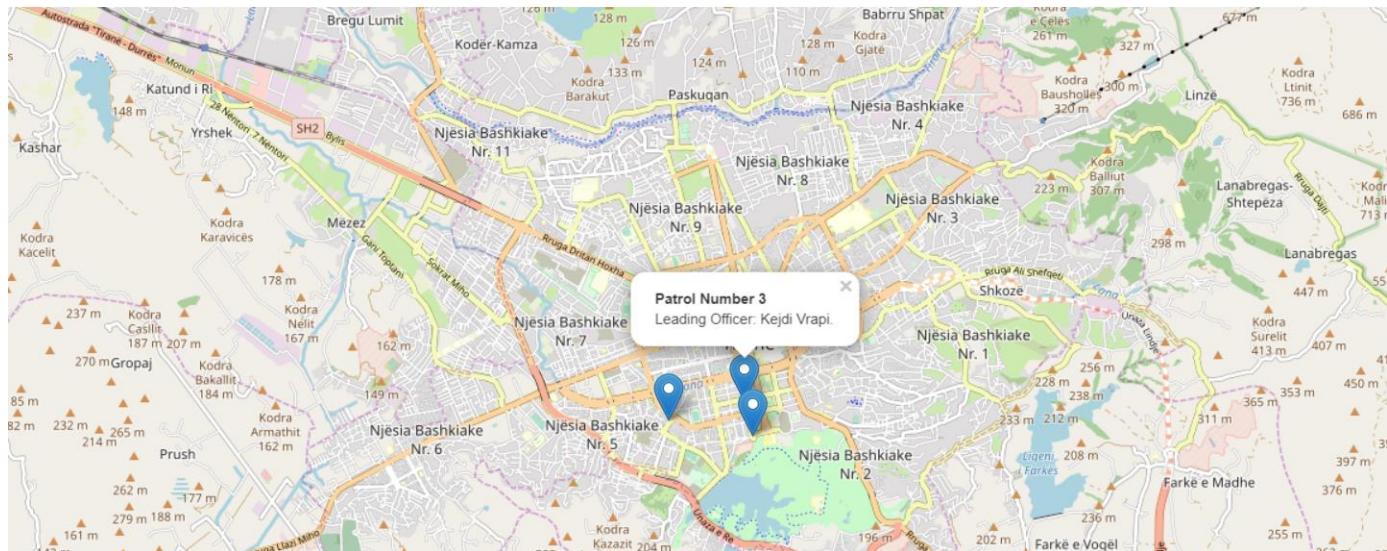
Anonymous

**Send Complaint**

## Find nearby patrols



HOME SERVICES TEAM NEWSROOM LOGIN



## Login Page

Login

E-Mail Address	<input type="text" value="officer@policiashtetit.gov.al"/>
Password	<input type="password" value="*****"/>
<input type="checkbox"/> Remember Me	
<input type="button" value="Login"/>	<a href="#">Forgot Your Password?</a>

# My Cases Page

## My Cases

Add a new case

Case ID	Start Date	End Date	Status	Title	Place	Officer	
1	2019-05-09	2019-05-20	OPEN	Inspection	Tirane	Officer Test	
2	2019-05-26	2019-05-27	OPEN	Drugs in the neighbourhood	Tirane	Officer Test	
4	2018-06-02	2019-07-01	OPEN	Corruption	Tirane	Officer Test	

Today's Date: 05-06-2019



New Messages

Tasks for Officer

<b>Task: Task for message</b> Case: Drugs in the neighbourhood Date Assigned: 2019-06-01 Employee: Orges	Status Completed
<b>Task: Get the report</b> Case: Drugs in the neighbourhood Date Assigned: 2019-06-01 Employee: Orges	Status Open
<b>Task: Get evidence</b> Case: Drugs in the neighbourhood Date Assigned: 2019-05-26 Employee: Orges	Status Completed

You Have 4 new messages

<b>Message from Chief</b> sadasdsad 05 Jun
<b>Task completed</b> Task Get evidence has been completed by Kristian Soto for Drugs case 02 Jun
<b>Task completed</b> Task Task for message has been completed by Orges for Drugs case 01 Jun
<b>Leaked information on the case</b> There has been some leaked information 28 May

## Add a new task

Add a new Task

Title

Enter title of the task

Description

Content...

Case Number

Inspection

Employee

Orges

Add

# Case Overview Page

Dashboard / Cases / Drugs in the neighbourhood

## Drugs in the neighbourhood

From

Case Leader: Officer  
Start Date: 26 May 2019  
Due on: 27 May 2019

**12**  
Cases Employees

**4**  
Case Tasks

**2**  
Involved people

### Task Progress

1 Check the suspect	Completed ✓	Orges	<a href="#">AFVJsoyCR4vwAMyGIVKs3B5lwOsFOBJvwQ.pdf</a>
2 Get evidence	Completed ✓	Orges	No Report Yet
3. Get the report	Ongoing ✘	Orges	No Report Yet
4. Task for message	Completed ✓	Orges	<a href="#">rsAMoSPMDWewGwVKnPoMJu45PbsII4NvNWy.pdf</a>

### Case Overview

Lorum ipsum is simply dummy text of the printing and typesetting industry. Lorum ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing Lorum ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorum ipsum.

### People Involved

Korson Kunze	25 May 2019	<a href="#">Open Profile</a>
Ostaldo Portion	25 May 2019	<a href="#">Open Profile</a>

### Case Files

<a href="#">AFVJsoyCR4vwAMyGIVKs3B5lwOsFOBJvwQ.pdf</a>	Orges
<a href="#">rsAMoSPMDWewGwVKnPoMJu45PbsII4NvNWy.pdf</a>	Orges
<a href="#">v29hNPPuJ9OyKipCrQlodwrS2qA69Wh7x0g.pdf</a>	Officer

[Zip and download](#)

## Citizen Profile

State Police System

Officer Change Password Logout

	<b>First name</b> Kerson
	<b>Last name</b> Kunze
<b>Status/Wanted</b>	<b>Father's Name</b> Manuela
Address: East Quintonhaven	<b>Mother's Name</b> Madeleine
Mobile Phone: (647) 328-2015 x2287	<b>Birth date</b> 07/06/2014
Birth Place: Marlioumou	<b>Gender</b> Male
	<b>Personal Number</b> Q0885620
	<b>Marital Status</b> single

### Cases Involved

09 May 2019 - 20 May 2019  
**Inspection**  
Lorem ipsum is simply dummy text of the printing and typesetting industry. Lorem ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the

Leading Officer: Officer

## File Upload for cases

Dashboard / Cases / File Report

### Case Files Already Uploaded

AFVfJsayCR4vwAkAylGIVKs3B5lvtwOsFO8JvwQ.pdf	<a href="#">Delete</a>
rs4Mo6PM0WevGwVKnnFotMUjxt5Pbslil4NtvNVy.pdf	<a href="#">Delete</a>
v3GhNPPuS9OyKiptCreQLadwrlS2qAG9WHR7XIX9.pdf	<a href="#">Delete</a>

### Upload a file report for task Drugs in the neighbourhood

File  Choose File No file chosen

## Add people to a case

Edit a case									
#	First	Last	Father's Name	Mother's Name	Birth Date	Gender	Personal Number	Martial Status	Actions
71	Bradly	Heaney	Christ	Shakira	2003-10-28	Male	V9062954N	SINGLE	<button>Remove from this case</button>

## Change password

Change Password

Current Password	<input type="text"/>
New Password	<input type="text"/>
Confirm Password	<input type="text"/>

**Confirm**

## View Messages



**State Police System**

12 Min ago

Task Get evidence has been completed by  
Kristian Sota for Drugs case

## Add new case

Description

Start Date

End Date

Place

## Search the archive



26 May 2019 - 27 May 2019

### Drugs in the neighbourhood

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the

**Leading Officer:** Officer



## View complaints

Dashboard / Complaints by citizens

Complaint ID	Title	Date Opened	Status	Actions
1	Corruption	25-05-2019	Closed	<button>COMMENT</button>
3	Test test test test test	25-05-2019	Closed	<button>COMMENT</button>
4	Money Laundering	25-05-2019	Closed	<button>COMMENT</button>

## Dashboard

State Police System

Orges Change Password Logout

Dashboard / Overview

New Tasks!

[View Details](#) >

Citizen Lookup

[View Details](#) >

Complaints

[View Details](#) >

Add Tickets

[View Details](#) >

## Employee tasks

State Police System      Orges Change Password      Logout

### EMPLOYEE TASKS

Dashboard / Tasks

#### All Tasks

TASK ID	DATE	TITLE	DESCRIPTION	CASE	OFFICER	STATUS
1	2019-05-26	Check the suspect	You have to check the suspect and visit	Drugs in the neighbourhood	Officer	Closed
2	2019-05-26	Get evidence	You have to get evidence from the house	Drugs in the neighbourhood	Officer	Closed
3	2019-06-01	Get the report	Get the report from the office	Drugs in the neighbourhood	Officer	Open
4	2019-06-01	Task for message	This task was created to check if the me	Drugs in the neighbourhood	Officer	Closed

127.0.0.1:8000/employee/tasks/3/file-report

## Upload files for tasks

State Police System      Orges Change Password      Logout

Dashboard / Tasks / File Report

#### Case Files Already Uploaded

Upload a file report for task **Get evidence**

File  Choose File Week 9.pdf

## View complaints by citizens



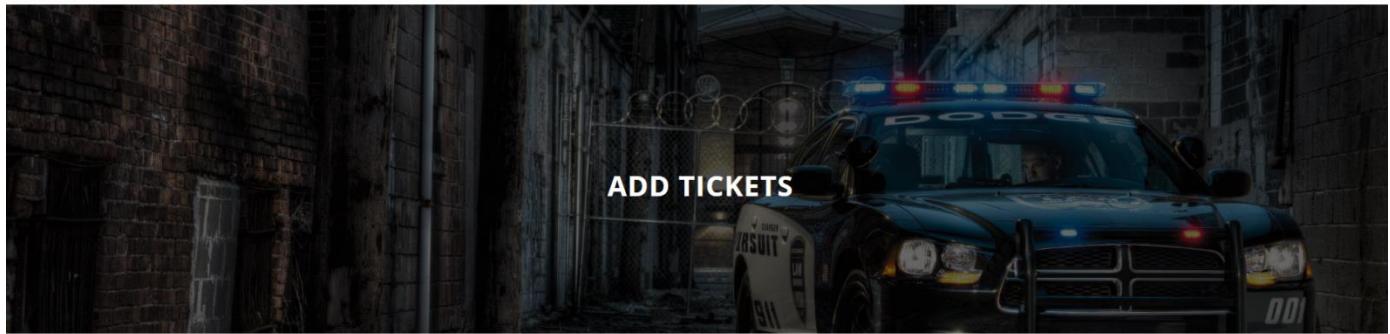
Dashboard / Complaints by citizens

Complaint ID	Title	Date Opened	Status	Actions
1	Corruption	25-05-2019	Closed	<button>COMMENT</button>
3	Test test test test test	25-05-2019	Closed	<button>COMMENT</button>
4	Money Laundering	25-05-2019	Closed	<button>COMMENT</button>



Dashboard / Tasks

File report uploaded successfully

[Dashboard](#) / [Tickets](#) / Add New Ticket[Dashboard](#) / [Tickets](#) / Add New Ticket

Ticket ID

License  
Plate  
NumberChassis  
NumberTicket  
AmountTicket  
Description[Upload Ticket](#)[Dashboard](#) / [Tickets](#) / Add New Ticket

Ticket Stored Succesfully

Ticket ID

Dashboard / Internal Affairs

 Investigations[View Details >](#) Archive[View Details >](#) Citizen Lookup[View Details >](#) Complaints[View Details >](#) Police Employees Lookup[View Details >](#)

Investigations / Kristian Sota

## All Investigations

Investigation ID	Title	Description	Category	Employee Under Investigation	Status	
1	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Closed	
2	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Closed	

## All Investigations

Investigation ID	Title	Description	Category	Employee Under Investigation	Status	
1	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Closed	
2	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Closed	Suspend employee
3	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Open	  

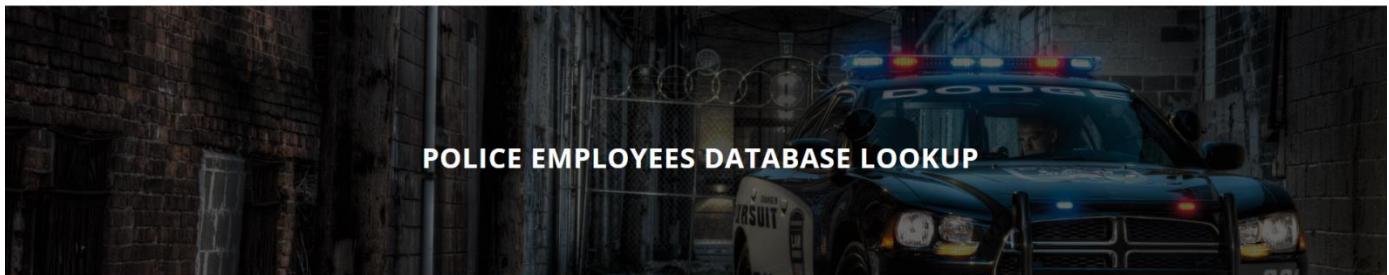
## All Investigations

Investigation ID	Title	Description	Category	Employee Under Investigation	Status	
1	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Closed	
2	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Closed	Close Investigation
3	Get evidence	investigationssadasas	\$ Corruption	Orges Balla	Open	  

State Police System

Kristian Change Password

Logout



Dashboard / Police Employees Lookup

Search by:  Enter value to search:



Dashboard / Police Employees Lookup

Search by:   Enter value to search:

#	Name	Surname	Email	Position	Actions
4	Officer	Test	officer@policiashtetit.gov.al	Police Officer	<input type="button" value="OPEN"/> <input type="button" value="PUT HIM ON WATCH"/>

State Police System

Kristian Change Password

Logout

Dashboard / User Profile



**Employee name**

Officer

**Employee surname**

Test

**Email**

officer@policiashtetit.gov.al

Enter message

**Personal Number**

4

**Work Position**

Police Officer

02 Jun 2018 - 01 Jul 2019

### Corruption

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the

**Leading Officer: Officer**



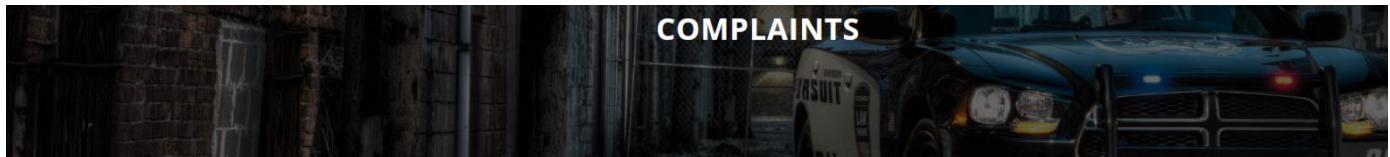
**Record Investigation File**

EMPLOYEE ID	<input type="text" value="4"/>	Employee's ID
Employee's Name	<input type="text" value="Officer"/>	
Investigation Title	<input type="text" value="Text"/>	
Description	<input type="text" value="Enter the description of the case..."/>	
Select	Select	<input type="button" value="Please select"/>
Category		
Enter the title for this investigation		
Investigation Title	<input type="text" value="Too many complaints"/>	
Description	<input type="text" value="There have been several complaints by citizens"/>	
Select	Select	<input type="button" value="Citizen Complaints"/>
Category		
Multiple File input	<input type="button" value="Choose Files"/> Week 9.pdf	
<input type="button" value="Submit"/> <input type="button" value="Reset"/>		



Dashboard / Complaints towards Internal Affairs

Complaint ID	Title	Date Opened	Status	Actions
2	Corruption2	25-05-2019	Open	<button>COMMENT</button> <button>CLOSE</button>



Dashboard / Complaints / Email

Name  
Officer

Surname  
Test

Email  
officer@policiashtetit.gov.al

Subject  
Thank you

Email Body  
Thank you for the results

Submit

orges_13@yahoo.com	
From:	
Enter the email that you want to reply from	
Subject	
Enter email subject	
Email Body	
Enter email body	
<input type="button" value="Submit"/>	<input type="button" value="Put employees on watch"/>

## 6. Project Planning

**Project Name:** SPS (State Police System)

**Members:** Erban Danaj, Kejdi Vrapi, Kristian Sota, Orges Balla, Renato Muho, Silvio Talelli

**Real start and end days:** 05.03.2019 – 06.06.2019

**Estimated start and end days:** 12.03.2018 – 12.08.2018

**Real total days:** 93 days

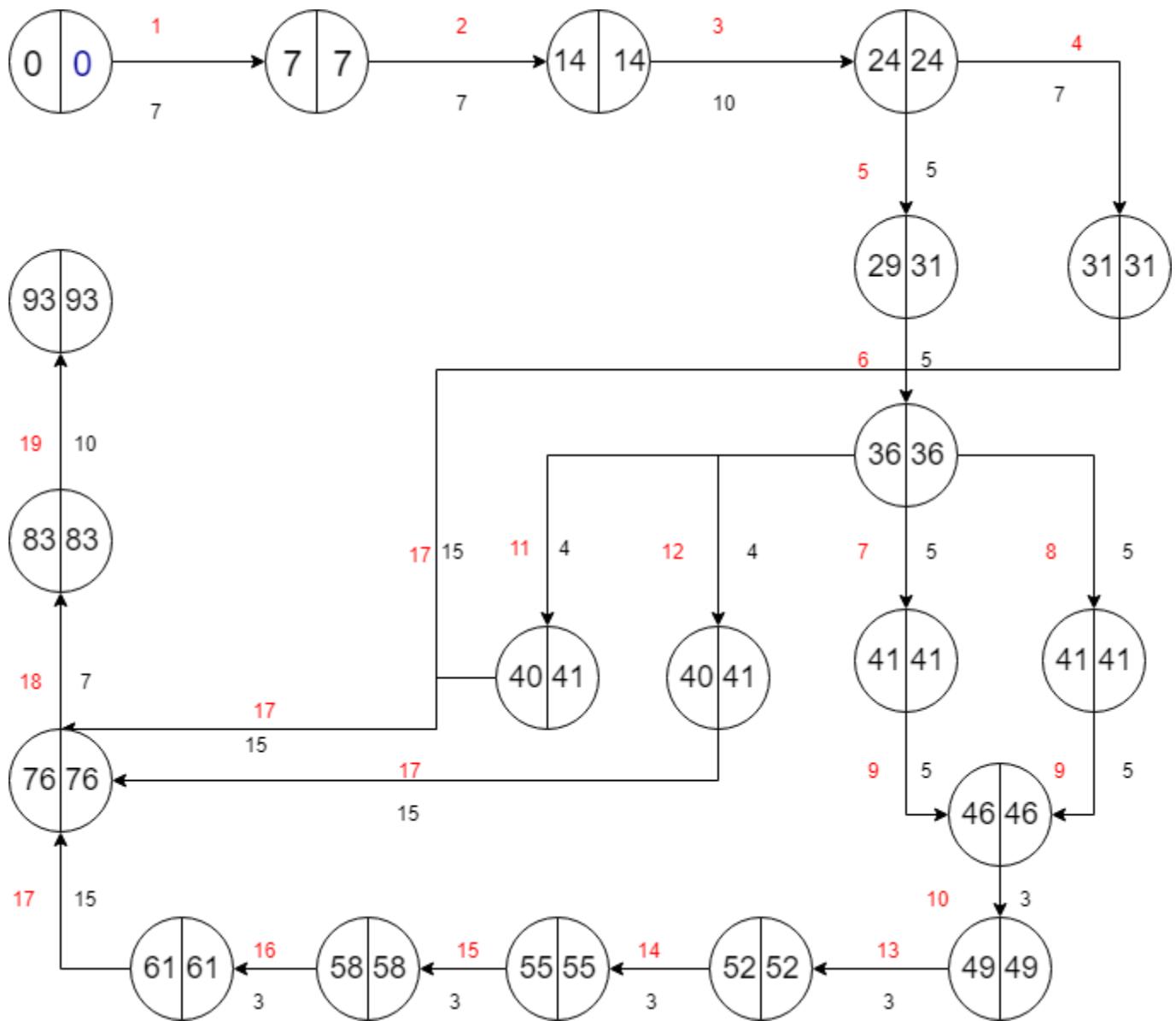
**Estimated total days:** 154 days

### 6.1 Task distribution chart

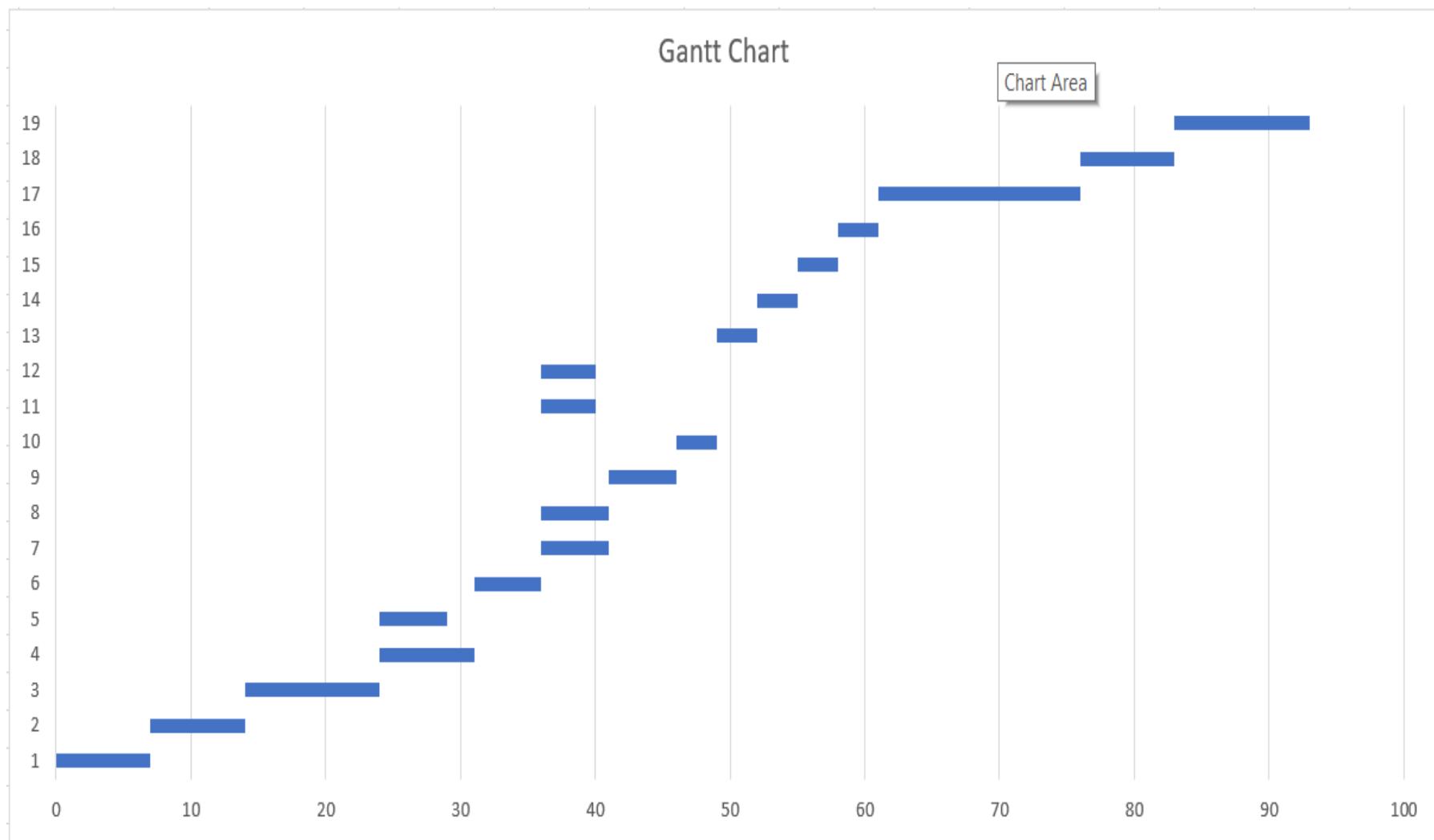
No.	Activity	Duration(days)	Dependencies	Worked
1	<b>Proposed topic for the project</b> Team discussion about the project	7		Team
2	<b>Research</b> Find the technologies that we can use Talk with police employees	7	1	Team
3	<b>Requirements Analysis</b> Product Description Functional, Non-functional requirements	10	2	Team
4.	Draw Sketches	7	3	
5.	<b>User Scenarios, Use Cases</b> <b>Behavioral Diagrams</b>	5	3	Orges Balla
6.	Use Cases Diagrams	5	5	Orges Balla
7.	Activity Diagrams	5	6	Kristian Sota
8.	State Diagrams	5	6	Renato Muho Kristian Sota Orges Balla

<b>9.</b>	Sequence Diagrams	5	7,8	Orges Balla
<b>10.</b>	Collaboration Diagrams	3	9	Kristian Sota
<b>11.</b>	<b>Entity Relation Diagram</b>	4	6	Kejdi Vrapi
<b>12.</b>	<b>Data Flow Diagram</b>	4	6	Erban Danaj
	<b>Structural Diagrams</b>	<b>12</b>		
<b>13.</b>	Class Diagram	3	10	Kristian Sota
<b>14.</b>	Object Diagram	3	13	Silvio Talelli
<b>15.</b>	Component Diagram	3	14	Kejdi Vrapi, Erban Danaj
<b>16.</b>	Deployment Diagram	3	15	Renato Muho
<b>17.</b>	Web App Coding	15	4, 11,12, 16	Orges Balla, Kristian Sota Renato Muho
<b>18.</b>	Testing	7	17	Kristian Sota, Orges Balla
<b>19.</b>	Documentation	10	18	Orges Balla, Kristian Sota

## 6.2 Network Analysis



### 6.3 Gantt Chart



## **Appendix A. References**

- [1]. <https://www.asp.gov.al/>
- [2]. <https://laracasts.com/series/laravel-from-scratch-2018>
- [3]. <https://github.com/puikinsh/CoolAdmin>
- [4]. <https://themeforest.net/category/site-templates?tags=performance>
- [5]. <https://www.parlament.al/Files/Integrimi/ligj-nr-35-dt-31-3-2016-1.pdf>

## **Appendix B. Sketches**

Login

E-Mail Address

Password   Remember Me

[Login](#) [Forgot your Password?](#)

# STATE POLICE SYSTEM

EASE YOUR WORK

**T.D admin**

Ongees Balla

My Profile  
A My profile

Dashboard

Tactics

Media

Reports

Open cases

Ongoing trials

Archive

Assign tasks

Settings

Profiles

User page

My Profile

Your Profile

First name \_\_\_\_\_

Last name \_\_\_\_\_

E-mail address \_\_\_\_\_

Gender \_\_\_\_\_

Password .....(change password)

About me \_\_\_\_\_

Edit photo

Messages

Go Settings

Orges Balla

Employee Dashboard

Menu

Notifications

News

Organization

Precinct

Account

Login

My Tasks

Search DB

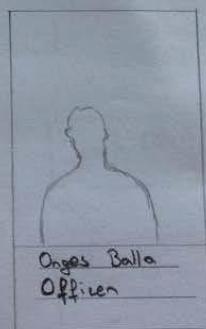
Requests

Communication Channel

Reports

Archive

## Our TEAM



File Report

Dashboard	Date:	<input type="text"/>
Tactics	Name:	<input type="text"/>
Media	Address:	<input type="text"/>
Reports	Content:	<input type="text"/>
Open cases	Signed by:	
On-going trials	<input type="button" value="Send"/>	
Archives		
Assign tasks		
Settings		
Profiles		
User Page		

*State Police System Requirements Specification*

## OUR SERVICES

News

Successful  
Operations

Report a  
crime

Parking  
tickets

Fight  
Corruption

Wanted  
Man / Woman

Contact our  
officers

About us

## Dashboard/Cases / Drugs in the neighbourhood

### Drugs in the neighbourhood

Case Leader: Officer  
Start Date: 28 May 2019  
Due Date: 27 June 2019

12 Case Employees  
4 Case Tasks  
2 Involved People

#### Task Progress

1. Check the suspect  
Completed
2. Get Evidence  
Ongoing
3. Get the Report  
Completed
4. Task for Message  
Completed

#### People Involved

Rewato Muho  
Keidi Virapi

Ogres Balla  
Kristian Soto  
Kristian Soto  
Ogres Balla

Report 1.pdf  
No Report Yet

No Report Yet

Report 2.pdf

[Open Profile](#)

[Open Profile](#)

#### Case Files

- Casefile 1.pdf  
Casefile 2.pdf  
Casefile 3.pdf  
Casefile 4.pdf
- Ogres  
Ogres  
Officer  
Officer

[Zip & Download](#)



State Police System

Profile Change Password Officer

Dashboard / Overview

Cases
> View Details

Archive
> View Details

Citizen Lookup
> View Details

Complaints
> View Details

Add a new case

Case ID	Start date	End Date	Status	Title	Place	Officer
2	2019 - 05 - 26	2019 - 05 - 027	OPEN	Drugs in the neighbourhood	Tirana	Officer
4	2018 - 06 - 02	2019 - 07 - 04	OPEN	Corruption	Tirana	Officer

Today's Date: 03-06-2019



Tasks for Officer

Status:  
Completed

Task Completed

Task "Get Evidence" has been completed by Kristjan Seta 02 June

02 June

Task Completed

Task "Task for message" has been completed by Ogor Balla 04 June

04 June

Task: Get the report

Status:  
Open

Task: Get the report  
leaked information on the case

Case: Drugs in the neighbourhood  
Date Assigned: 2019-06-01  
Employee: Kristjan Seta

Case: Drugs in the neighbourhood  
Date Assigned: 2019-06-01  
Employee: Kristjan Seta

New Messages

You have 3 new messages

Task "Task for message" has been completed by Kristjan Seta 28 May