

GUYANA POLICE FORCE ELECTRONIC CERTIFICATE OF CHARACTER (GPF-ECC)



CSE2101

592 LOGISTICS (GROUP 15)



PRESENTATION OUTLINE



Project Plan



Software Requirement
Specification



System Design



System Testing



PROJECT PLAN

Organization Problem

- The Criminal Records Office (CRO) within the Guyana Police Force accepts and processes all requests for the Certificate of Character, commonly known as the Police Clearance or a Good Conduct Certificate.
- The application, processing and issuing of a Certificate of Character in its current state, is inefficient, time-consuming and paper-based.

Proposed Solution

A Management Information System that will replace the current paper-based system used by the Criminal Records Office to issue Certificates of Character. This system would be called (Guyana Police Force Electronic Certificate of Character, GPF – ECC).

This system will endeavor to:

- Make the process convenient and accessible for persons.
- Significantly reduce the time it takes to cross-check the criminal records of an applicant.
- The Information System will allow the generation of reports that can be used in the decision-making processes.

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PROJECT FEASIBILITY

Economic Feasibility- Our budget estimate is divided into six different areas of expenditure, these are:

- Software Costs
- Hardware Costs
- Labour Costs
- Support Costs
- Training
- Ongoing Costs

The total projected cost of the project is \$19,112,000. This investment is expected to significantly improve the existing processes, reduced paper usage and facilitate data and information security.

Existing Cost	Possible Cost Benefits to be realized
Cost of Labor to manually verify an applicant criminal history – GY \$ 1062/hourly	Information system will fully automate the verification process eliminating this labor cost.
GY \$1,000,000 spent annually on paper supplies	90% reduced paper usage

As such the budgeted cost of \$19,112,000 is a small price to pay for benefit of computerizing the issuance of certificates of character.

Operation Feasibility- A total of 6 members will be on the development team and each member will have different roles.

- Four of these members will have significant roles in the completion of the Information System.
- All members are expected to fulfil their responsibility through any constraints.
- The system will be expected to improve the overall rate of workflow along with the accuracy, relevancy and processing of data.

Schedule Feasibility- The project is expected to have a 6-month duration and 5 different activities will be conducted to ensure the system meets its highest standards. These are:

- Requirements Phase
- System Design Phase
- Implementation Phase
- Testing Phase
- Deployment and Review Phase

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RISK ANALYSIS

Risk	Risk Reduction Strategy
The biometric finger scanner fails to detect fingerprints	Each regional Police office would be equipped with a backup finger scanner
Reluctancy from applicants to use the system	User-friendly interface designed to save time and promote transparency in the process.
Trained staff not available at all Regional Police Stations for processing Certificates of Character	Before the system is launched, training will be conducted, and the solution will be implemented in stages
The system not being able to process a large number of applications as expected	Performance testing weekly during development and deployment



SOFTWARE REQUIREMENTS SPECIFICATION

Functional Requirements

- The system shall allow authorized employees to review reports produced weekly.
- Executive employee shall be able to see which employees are signed into the system.
- Online applicants shall be able to receive a receipt of payment within five minutes after the transaction.
- The system shall allow officers to create a user profile and update applicants' data.
- The system shall Encrypt all personal data that is inputted by an applicant.

Nonfunctional Requirements

- **Performance** (system quality must be at its best)

The application should be able to cross-check conviction records within 8 – 10 minutes since the heavy load will be on the high-end hardware and software on the server side of the operation.

- **Safety** (maintenance of privacy)

Data Accuracy: Inaccurate data in the information system will have legal implications that affect various stakeholders. The information system is expected to validate and ensure there is data accuracy.

- **Security**

Account locking: After three (3) failed login attempts, the user's (staff) account will be locked. To unlock their account, a user(staff) will seek assistance from the (supervisor) to verify their identity and set a new password.

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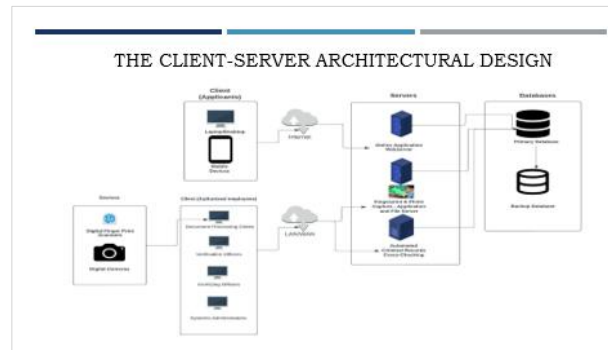
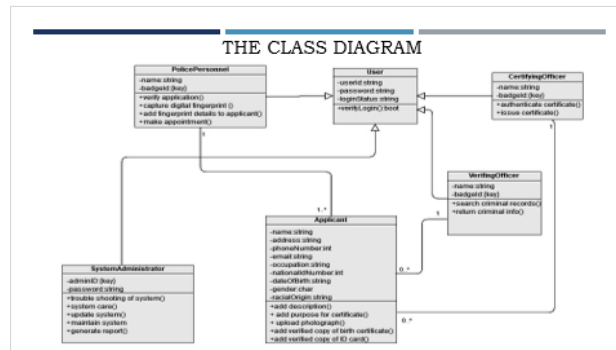
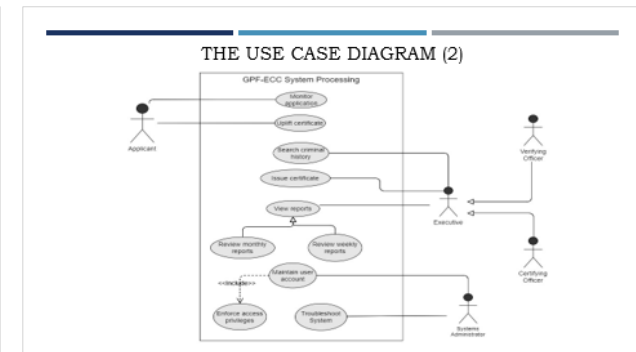
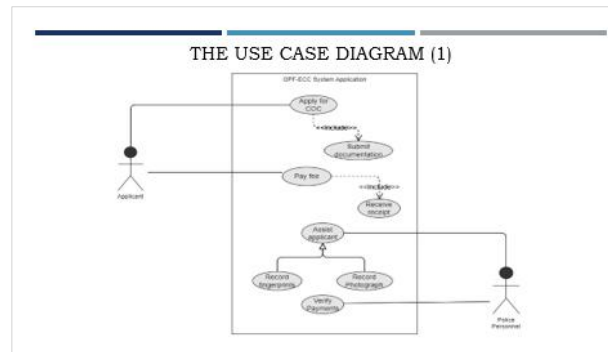
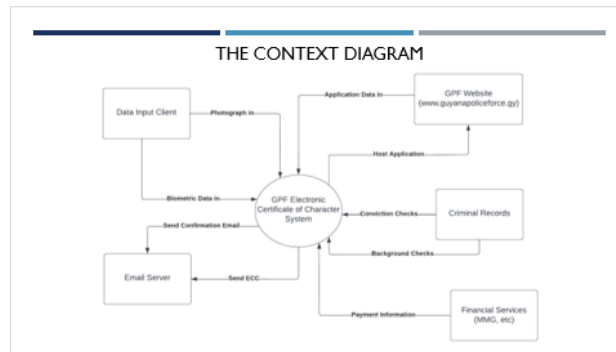
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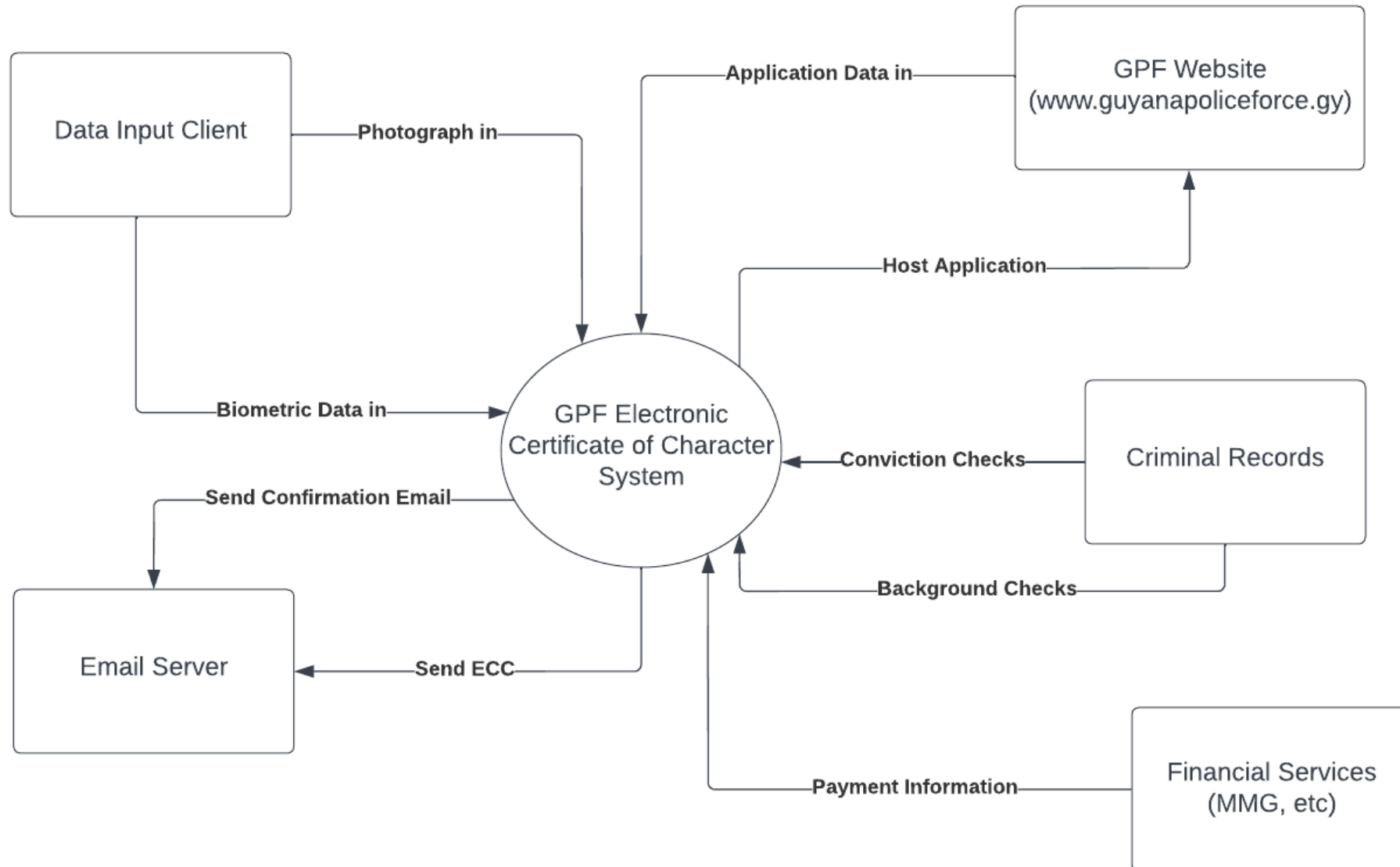
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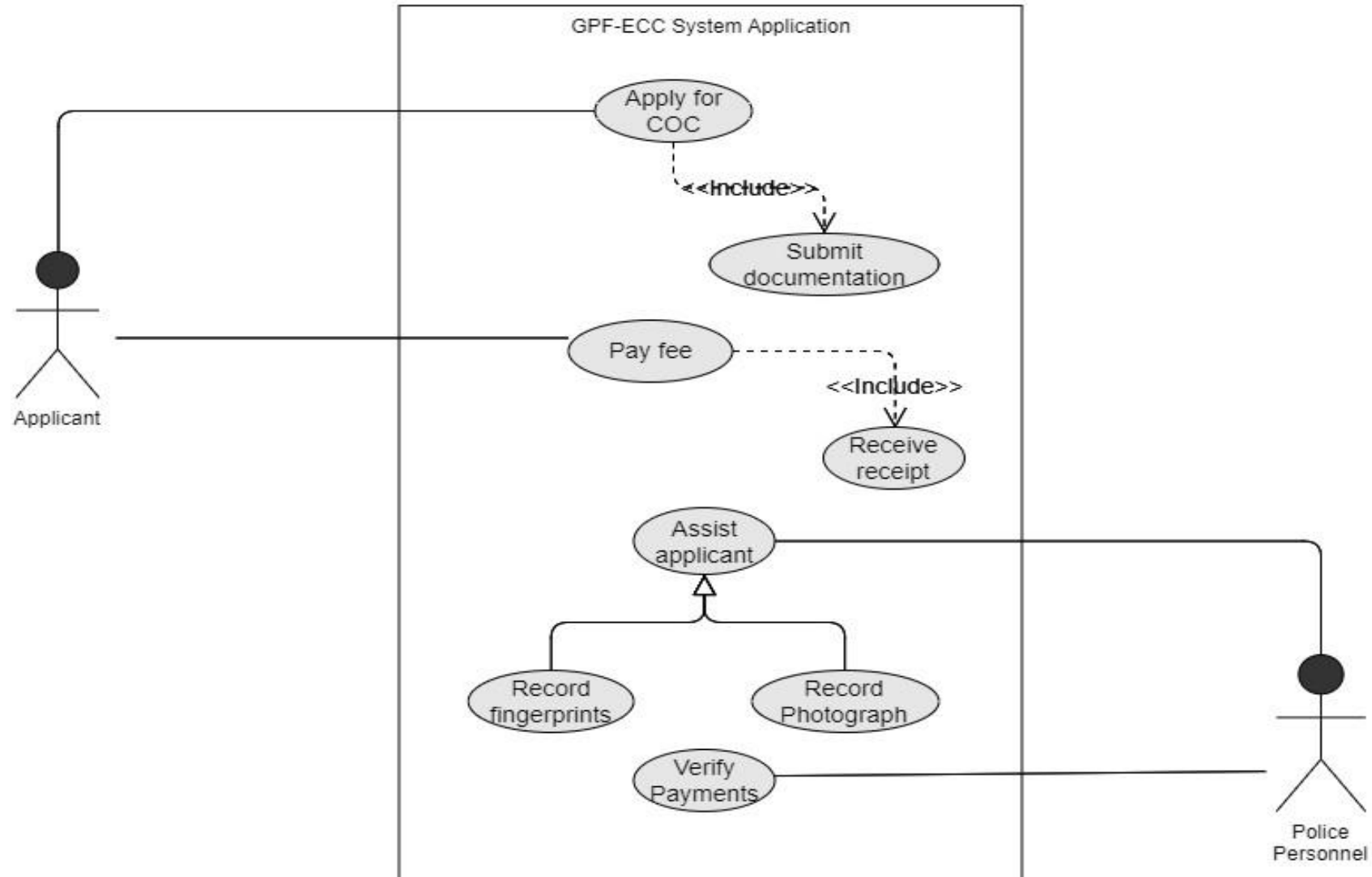
SYSTEM DESIGN



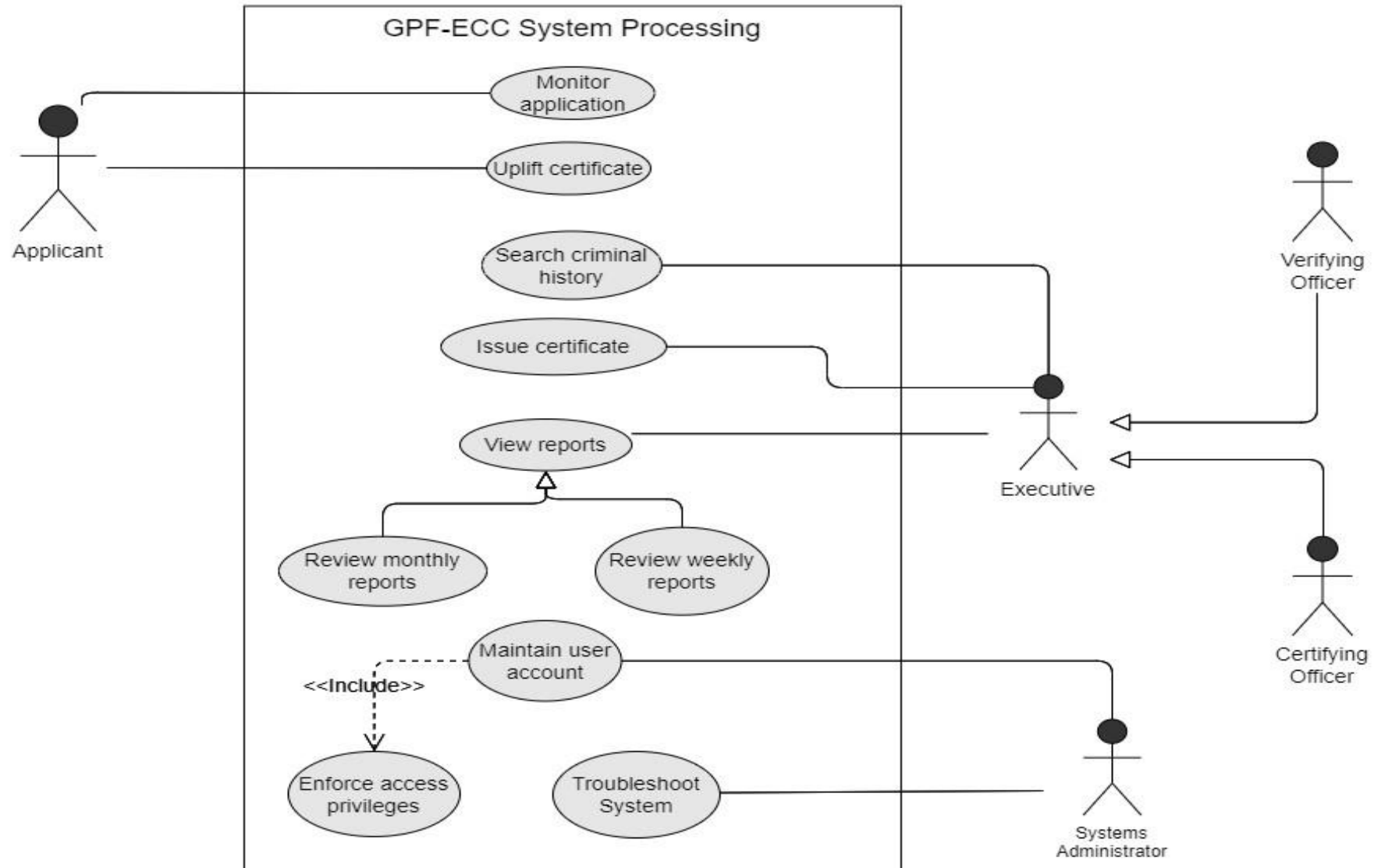
THE CONTEXT DIAGRAM



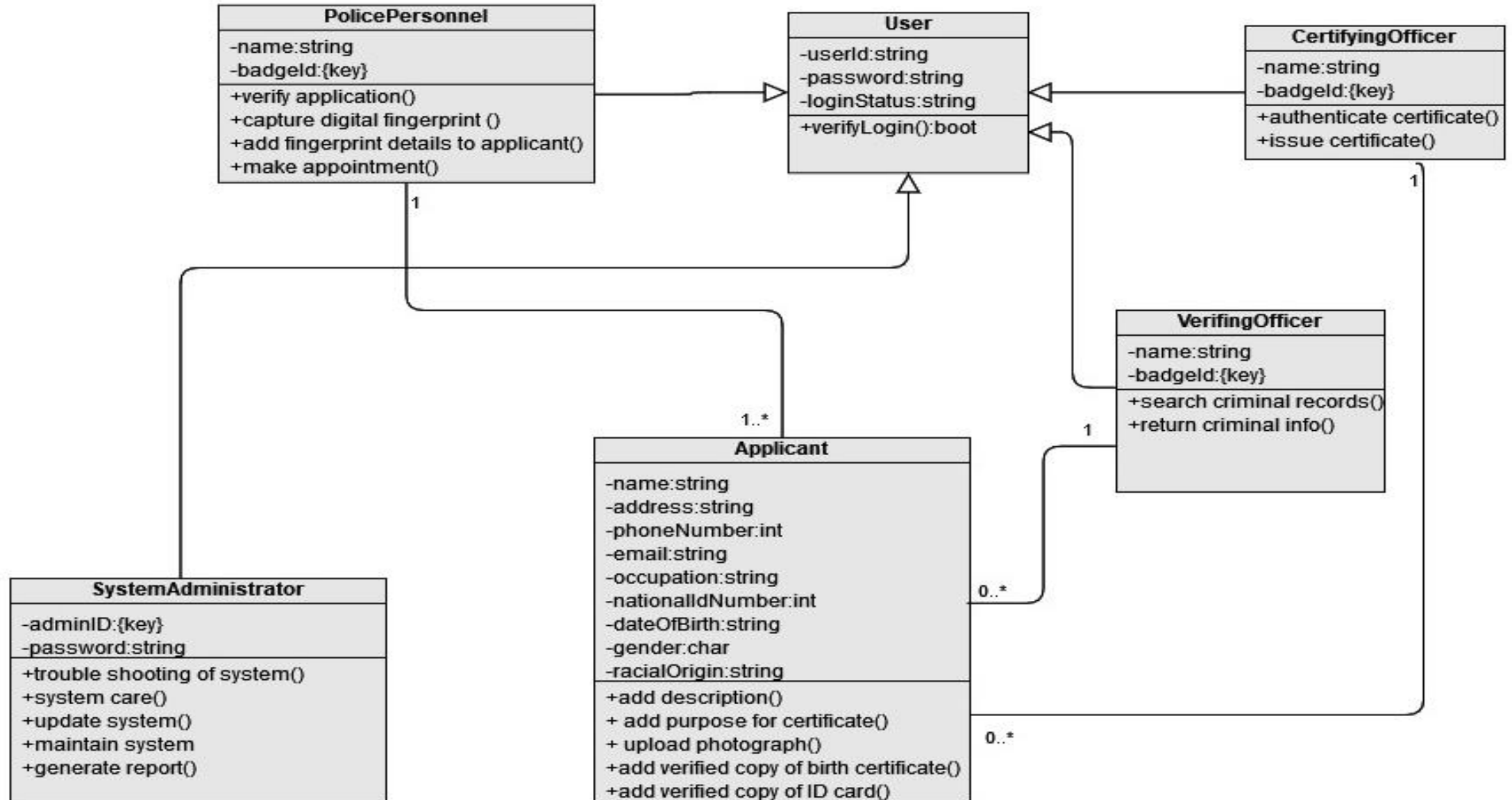
THE USE CASE DIAGRAM (1)



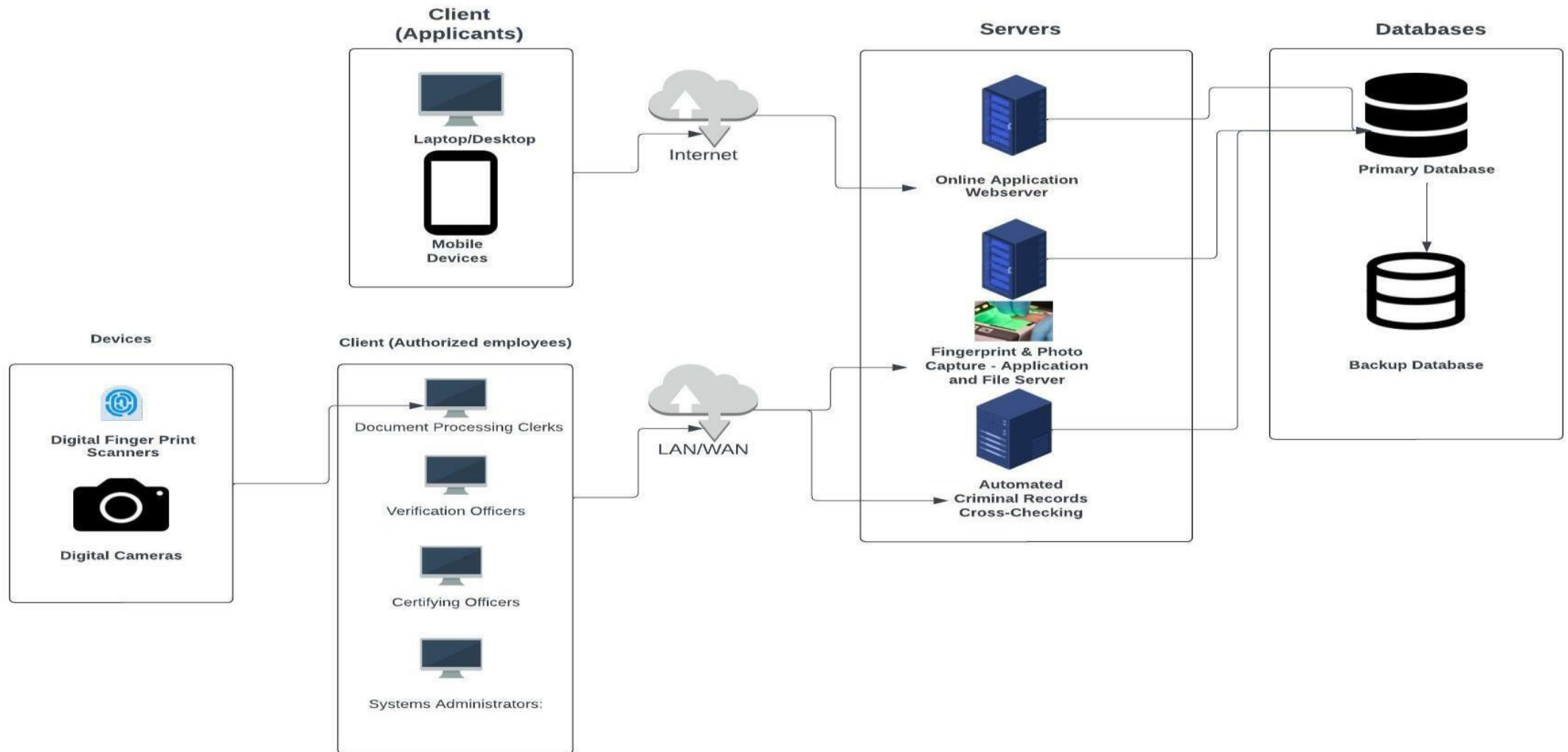
THE USE CASE DIAGRAM (2)



THE CLASS DIAGRAM



THE CLIENT-SERVER ARCHITECTURAL DESIGN





SYSTEM TESTING

Test case ID	TC_GPF_ECC_2
Test Priority (Low/Medium/High):	Medium
Test Title/Name:	Notify applicants of wrong field inputs
Test Summary/Description	The user input fields are designed to store the assigned data types within the specified fields. It is designed to accept valid email accounts that are inputted with the correct format. For example, an email labeled 592logistics@gmail.com would be a valid entry when inputted in the correct field, because it is formatted as "username@domainname.extension".
Pre-conditions	<ol style="list-style-type: none">1. The applicant must have the relevant documentation to apply for the Certificate of Character2. The applicant should have an email account3. Applicants must be on the application page4. The applicant should have initiated the application process
Dependencies	<ol style="list-style-type: none">1. The applicant must use a browser to access the GPF-ECC website2. The application server must be in operation

Test Steps	<ol style="list-style-type: none">1. Launch website2. Click and add your first name in the field labeled first name3. Click and add your last name in the field labeled last name4. Click and add email in the field labeled email5. Click and add Phone number in field labeled phone number6. Click and add occupation in the field labeled occupation7. Select National Id Type8. Click and add National Id Number9. Select the purpose for the certificate from the drop-down list10. Select gender from the drop-down list11. Select Date of Birth from the calendar12. Save the application13. Submit the application
Test Data	First Name = "Jim" Last Name = "Jones" email= " abc.email.com " Phone number = "6661111" Occupation= "Teacher" National Id type = "National Id card" National Id = "123456789" Purpose = "Travel" Gender = "Male" Date of Birth = "12/01/1990"
Expected Results	The Fields with incorrect data will be highlighted in red so that they could be easily identified by the applicant. Error messages "The email entered is not valid, enter an email using the format example@gmail.com " along with "Data input was unsuccessful and the application will not be submitted" will be displayed.
Post Conditions	The user will be expected to rectify any errors spotted within a field, until the system is error-free to submit the application.

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THANK YOU!

Question/
comments

