Detecting and Recognizing Vehicle License Plate System

Submitted in partial fulfillment of the requirement of PG Diploma in Advanced

Computing By

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Abstract:-

Traffic control and vehicle owner identification have become a major problem in every country. Sometimes, it becomes difficult to identify vehicle owner who violates traffic rules and drives too fast.

Therefore, it is not possible to catch and punish those kinds of people because the traffic personnel might not be able to retrieve the vehicle number from the moving vehicle because of the speed of the vehicle. Therefore, there is a need to develop the system as one of the solutions to this problem.

Our Detect and Recognize Vehicle License Plate will detect the license plate from an image and video. The user will just need to upload an image or video from their device.

1) Working of the Project

This system will detect and recognize vehicle license plates from a user's uploaded file. The system can also detect vehicle number plates in real-time, by just clicking on the device's camera.

The system will detect and recognize the license plate and if it's been detected, it will be displayed to the user.

2) Advantages

- It is easy to maintain.
- It is user-friendly.
- The system will automatically detect and recognize the license plate.
- It can detect vehicle license plates from an image and videos.
- It can also detect in real-time.
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3) System Description

The system comprises 1 major module with their sub-modules as follows:

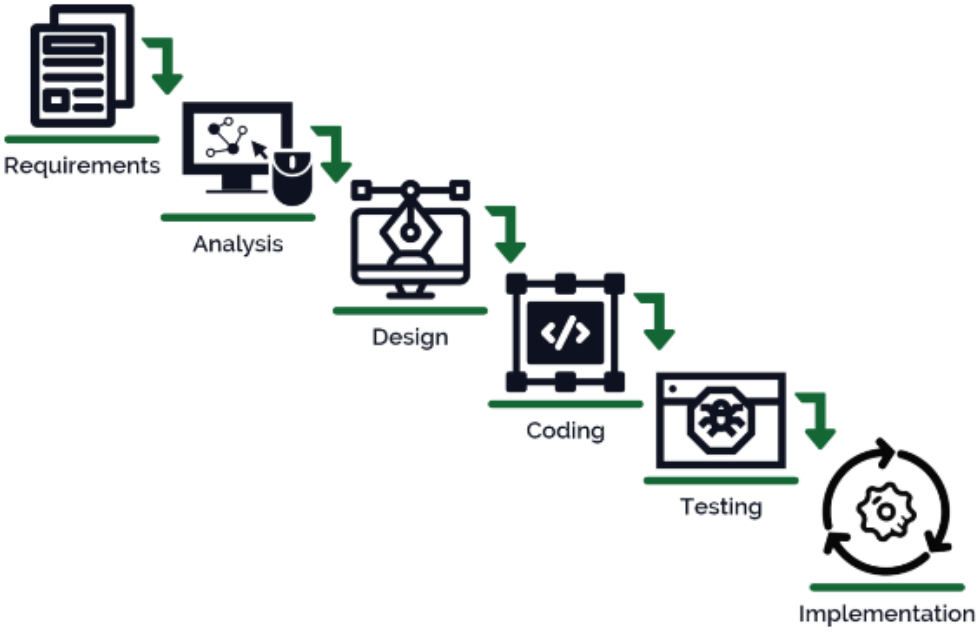
❖ USER:

- **Detection**
  - **Image**
    - User has to upload an image for detection.
  - **Video**
    - User has to upload a video for detection

- **Real-time**
    - From the user's device, with a click of the button camera will open to detect the car license plate in real-time.

4) <u>Project Life Cycle</u>

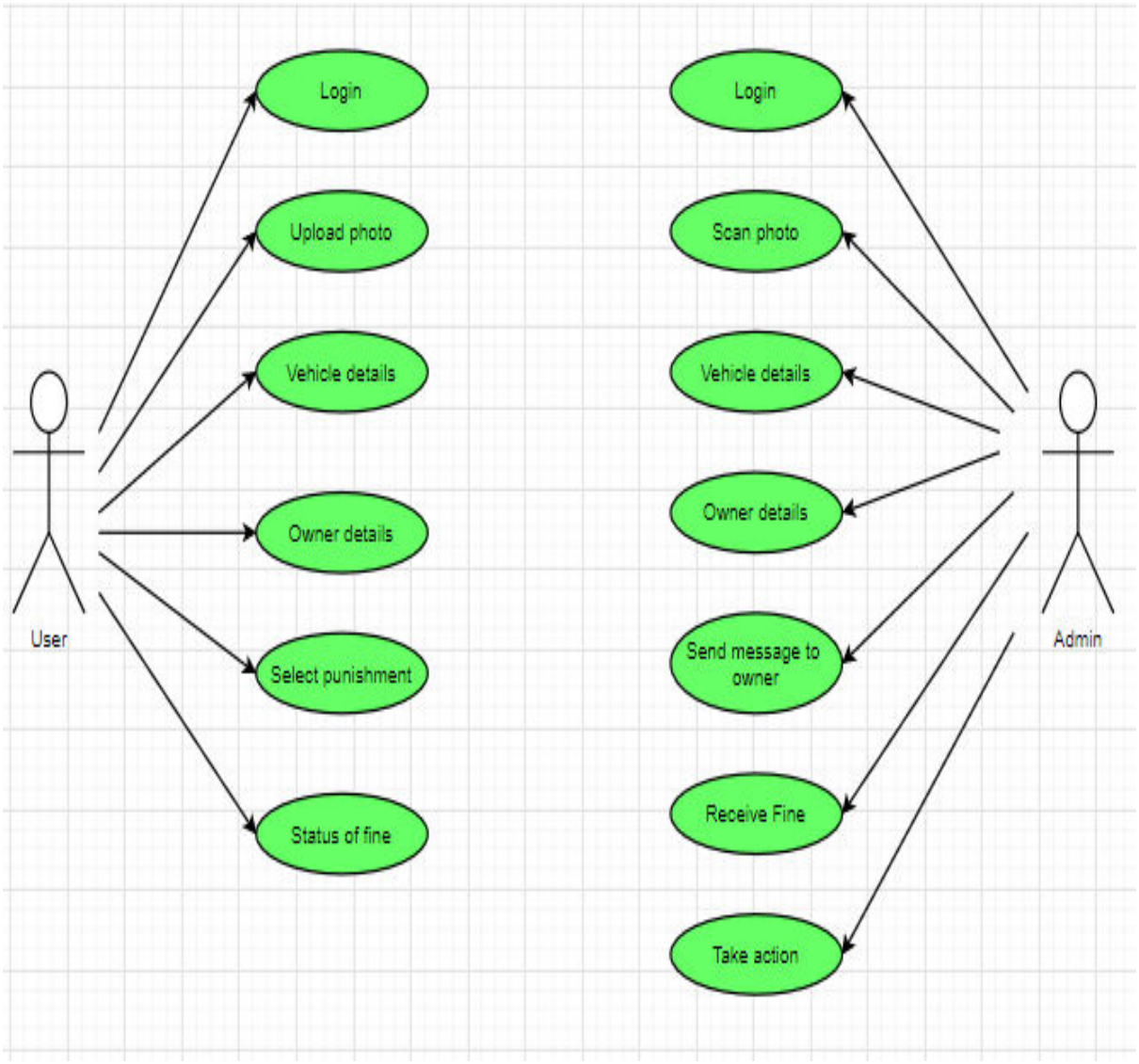
The waterfall model is a classical model used in the system development life cycle to create a system with a linear and sequential approach. It is termed a waterfall because the model develops systematically from one phase to another in a downward fashion. The waterfall approach does not define the process to go back to the previous phase to handle changes in requirements. The waterfall approach is the earliest approach that was used for software development.



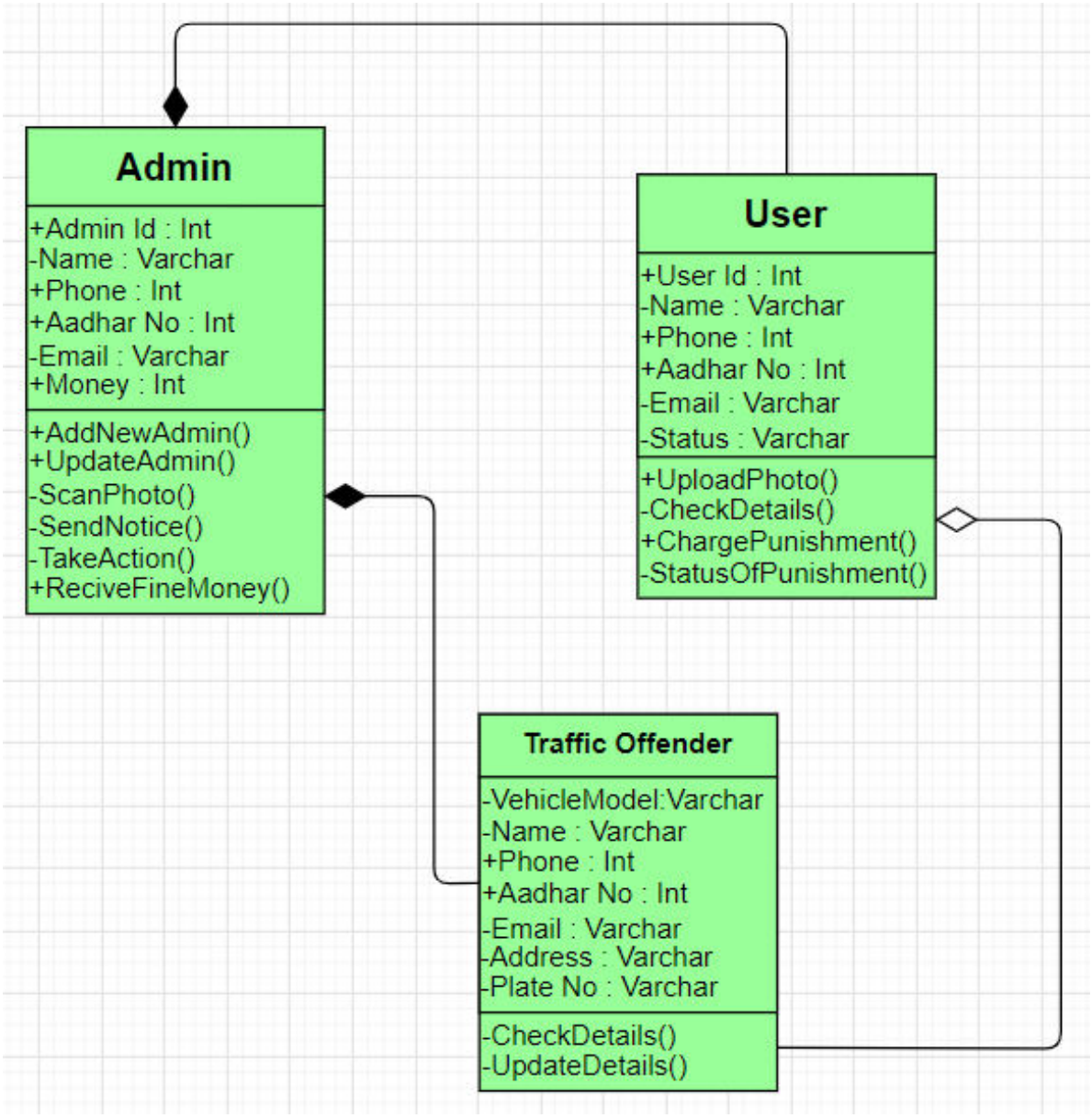
5) Limitation/Disadvantages

- The system might not be able to detect vehicle license plates if there's a dim light environment while capturing.

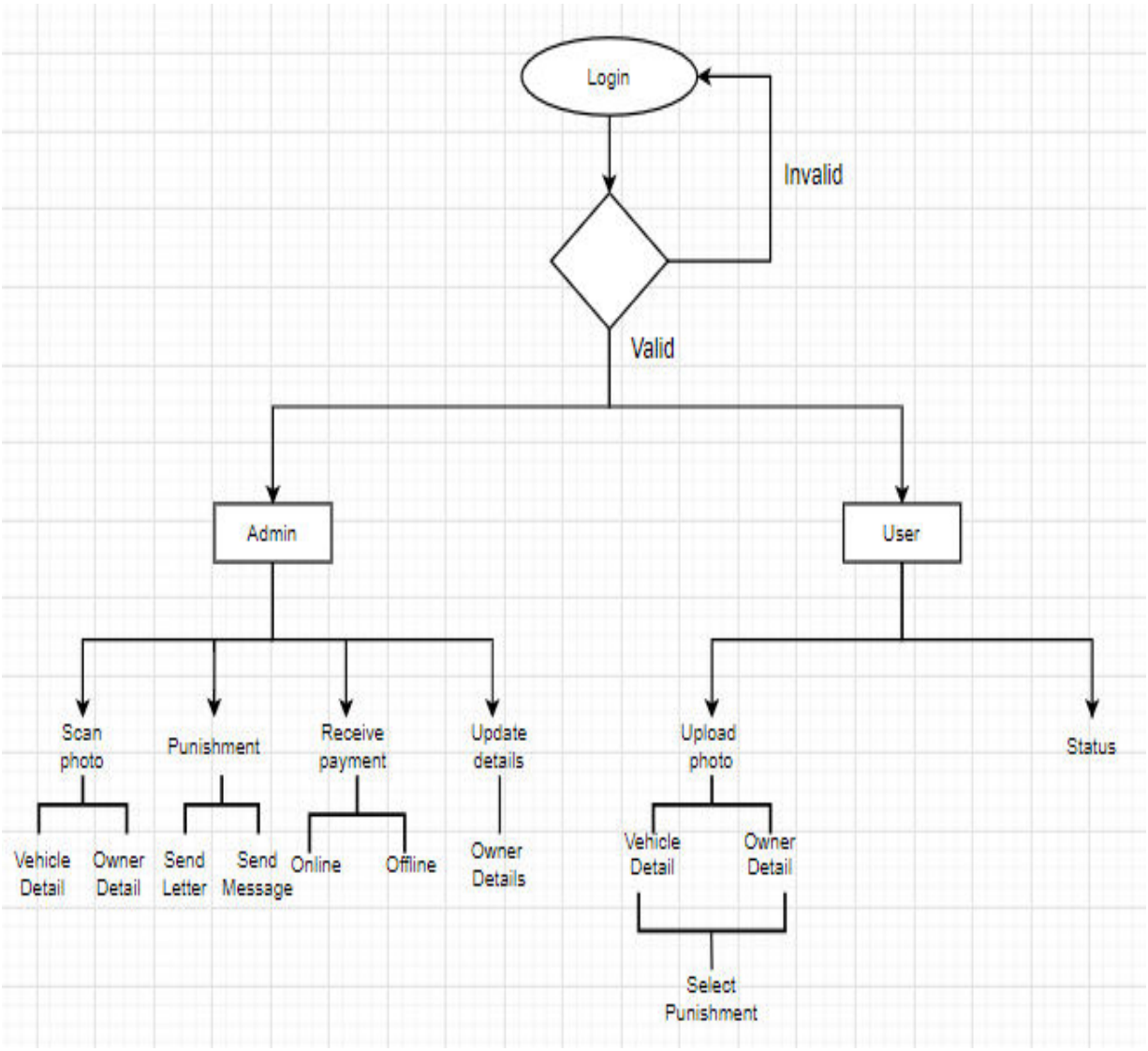
6) Application –This application detects and recognizes the vehicle number plate automatically.



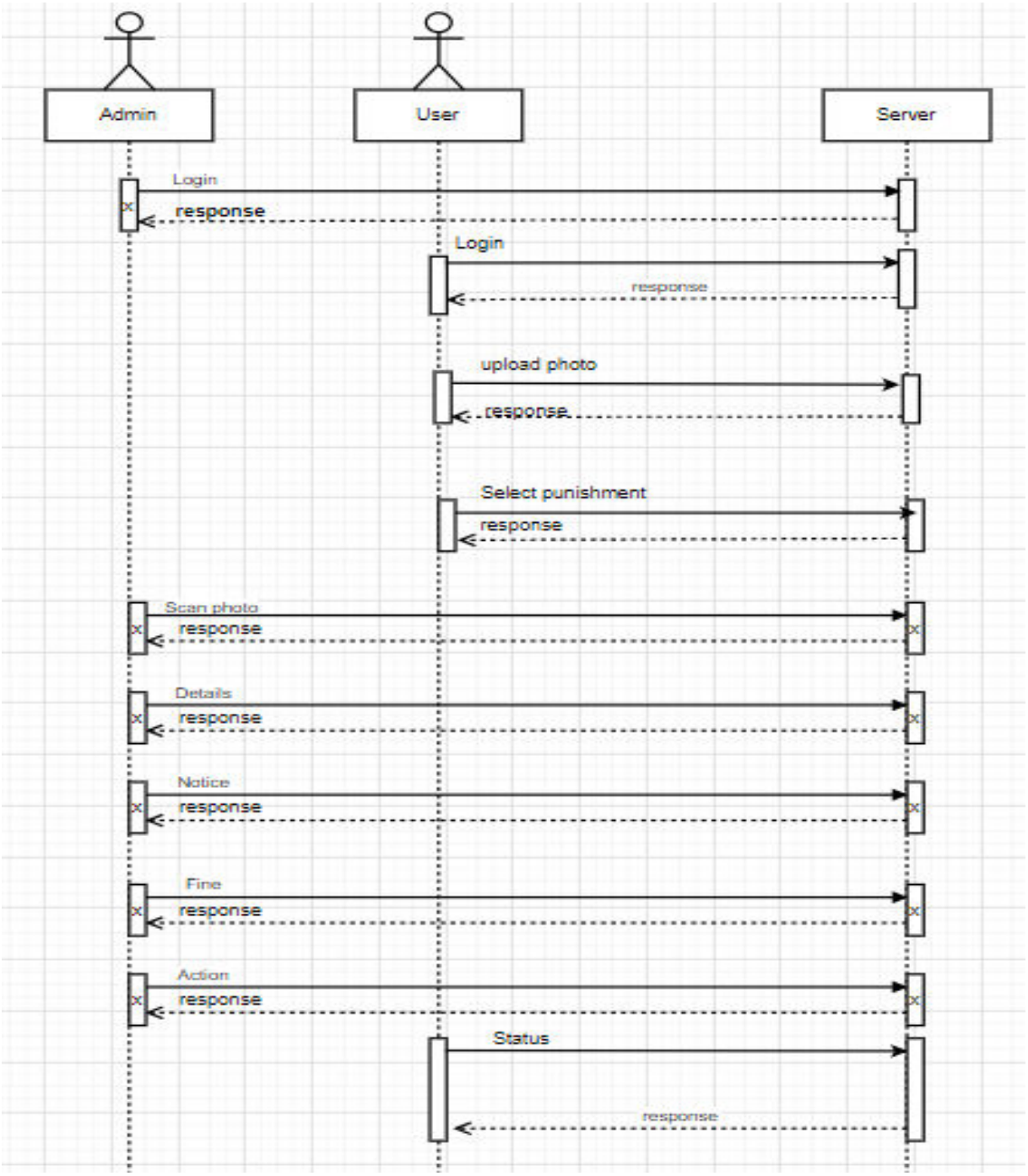
USE CASE DIAGRAM



CLASS DIAGRAM



ACTIVITY DIAGRAM



SEQUNCE DIAGRAM

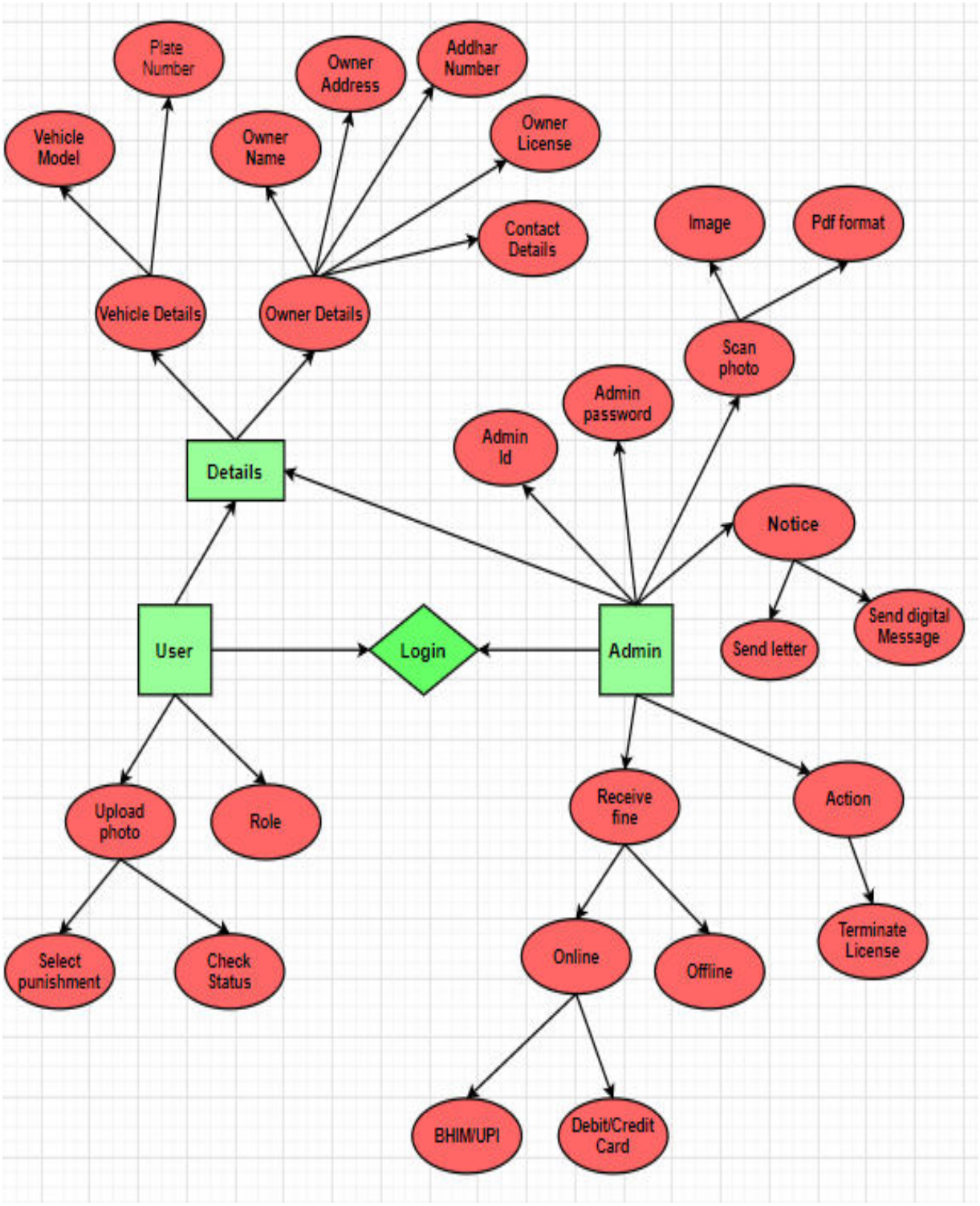


Plate Number
Owner Address
Addhar Number
Vehicle Model
Owner Name
Owner License
Contact Details
Image
Pdf format
Vehicle Details
Owner Details
Scan photo
Admin password
Admin Id
Details
Notice
Send digital Message
Send letter
User
Login
Admin
Upload photo
Role
Receive fine
Action
Terminate License
Select punishment
Check Status
Online
Offline
BHIM/UPI
Debit/Credit Card

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