



**Gyalpozhing College of Information Technology**  
*Royal University of Bhutan*



## ITW202 Mobile Application

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# Assignment-II

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SECTION: A

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ENROLLMENT NUMBER: 12190048

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# 1. Introduction

## *i. Purpose*

As we move to more advanced generation, it is a necessary condition that one needs to take several measure to keep our self-safe as the rate of mischievous activity is increasing every year. The practice of keeping the record of outgoing and incoming individual within the society is one good step that is found till now. This similar condition is also seen within the campus of GCIT but the record is being updated on the book. Somehow the book that contains the record is not a reliable and trustworthy source.

Therefore, to keep records safe and for longer duration, online application would be the best and it would also overcome tedious paper registration process.

## *ii. Scope*

### ***System Scope***

- a) Login: Enable the user to get inside the application through their account.
- b) Register: The user needs to create account to access the application.
- c) Scan: Verify the outgoing and incoming people within the college campus digitally.
- d) QR code: Scans the code so that the data are been stored in the database.

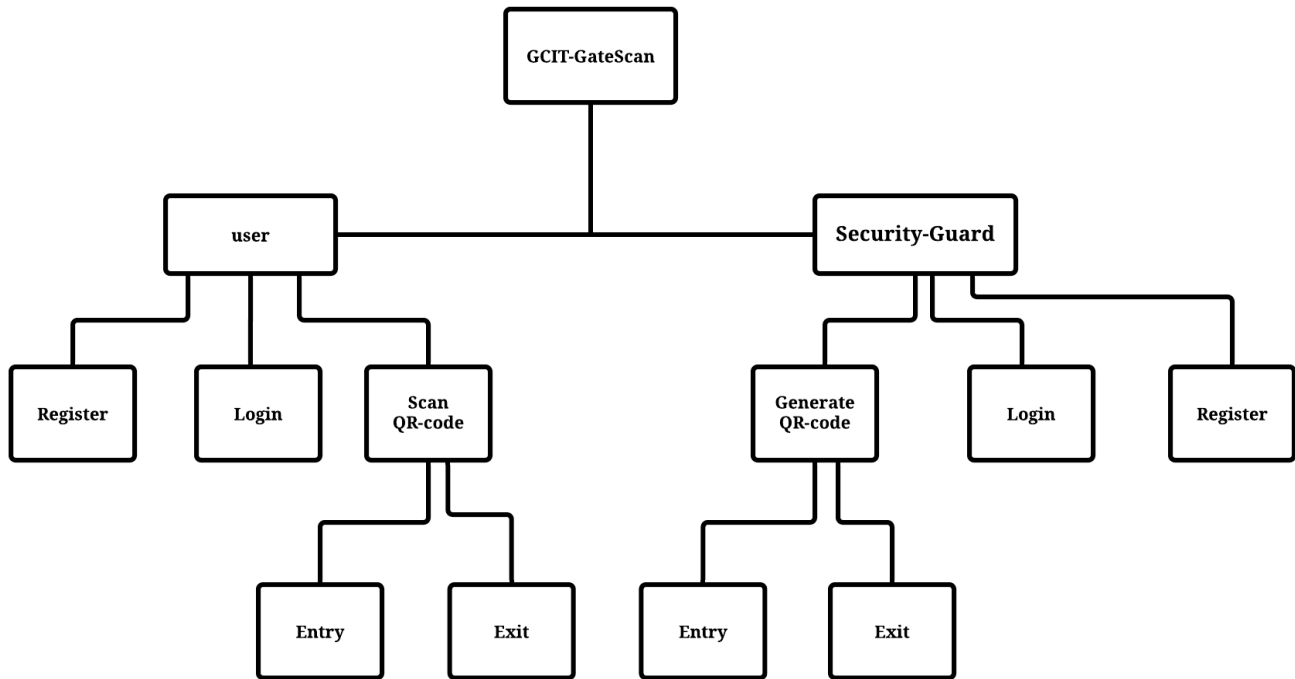
### ***User Scope***

The project targets the staffs and students of GCIT as they are the one who frequently leave and visit the college campus. The project focuses the boundary within the college campus since the purpose of application is to provide security to the staff and students of college.

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## 2. Requirements

### *a. Functional Requirements*



In functional requirements, we will discuss the features that will be implemented while developing this project. As shown in the diagram above, GCIT-GateScan Android Application will be developed based on following features:

- Register (Both the user and security guard have to register and should be account holder to access the app)
- Login (Users have to provide login credentials to access further)
- Scan QR code ( User can scan the QR code while entering or leaving the campus from th
- Generate QR code, unless he/she is security-guard

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### ***b. Non Functional Requirement***

In non-functional requirements, we will discuss the behaviour of the application which is going to be developed. And it includes following behaviours:

- Usability (GCIT-GateScan will be build using graphical interface with clear text and information to make it user friendly where the user will be able to use interface in a short period of time.)
- Responsiveness (Matching the graphical interface with the screen size of phone)
- Support-ability (This app can be installed and run on any android smartphones. The size of the smartphones will not affect the performance of the application.)

### ***c. Software Requirement***

For Developer

1. Android studio version 4 and above.
2. Java version: Java SE jdk 8 and above.
3. Android SDK-25 and above.
4. Operating System- Window and Ubuntu.
5. Database : Mysql

For user

Android version above 6  
2 GB RAM

### ***d. Hardware Requirement***

For developer

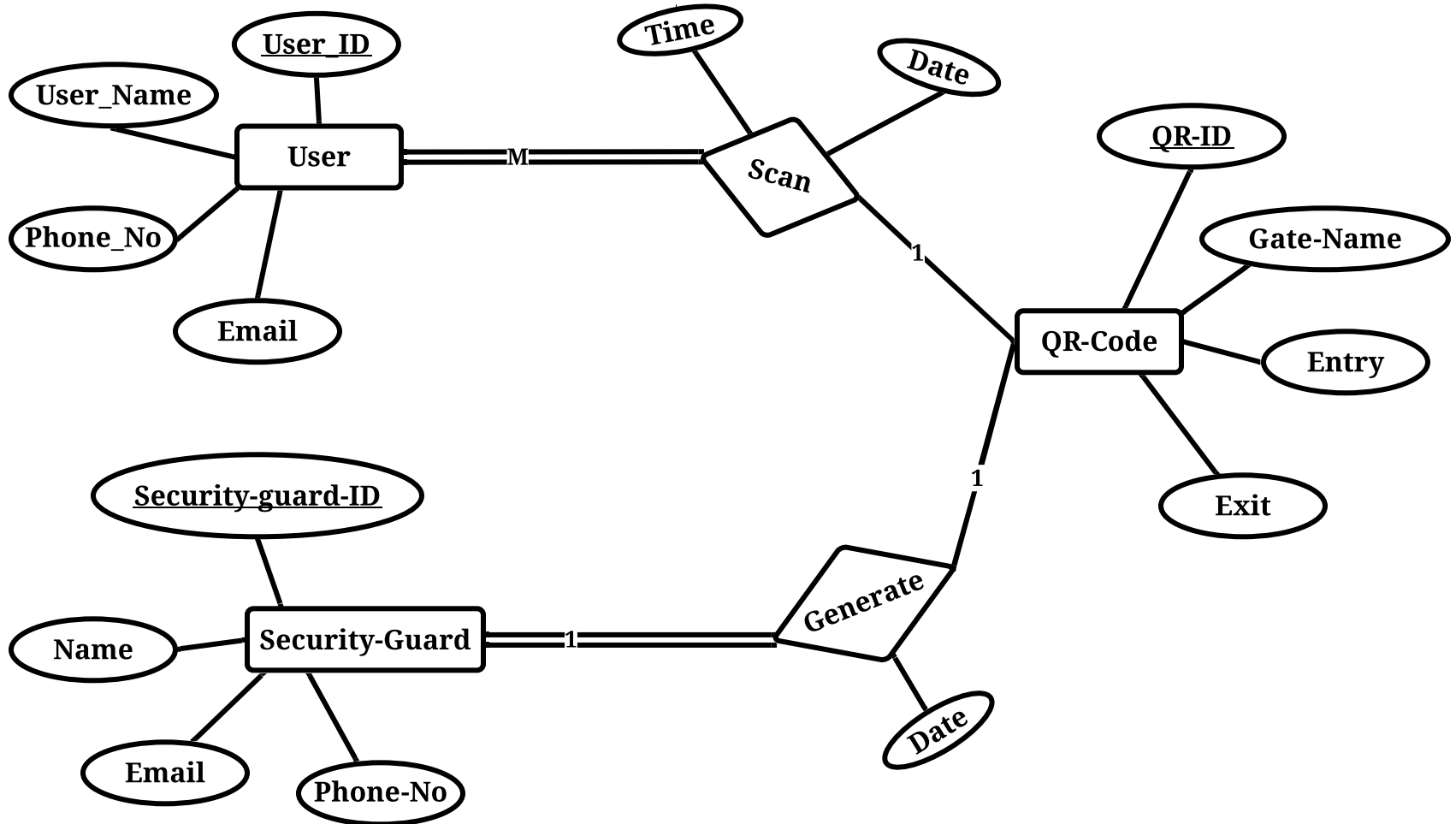
1. RAM 8GB
2. 2.00GHz\*4 processors.

For User

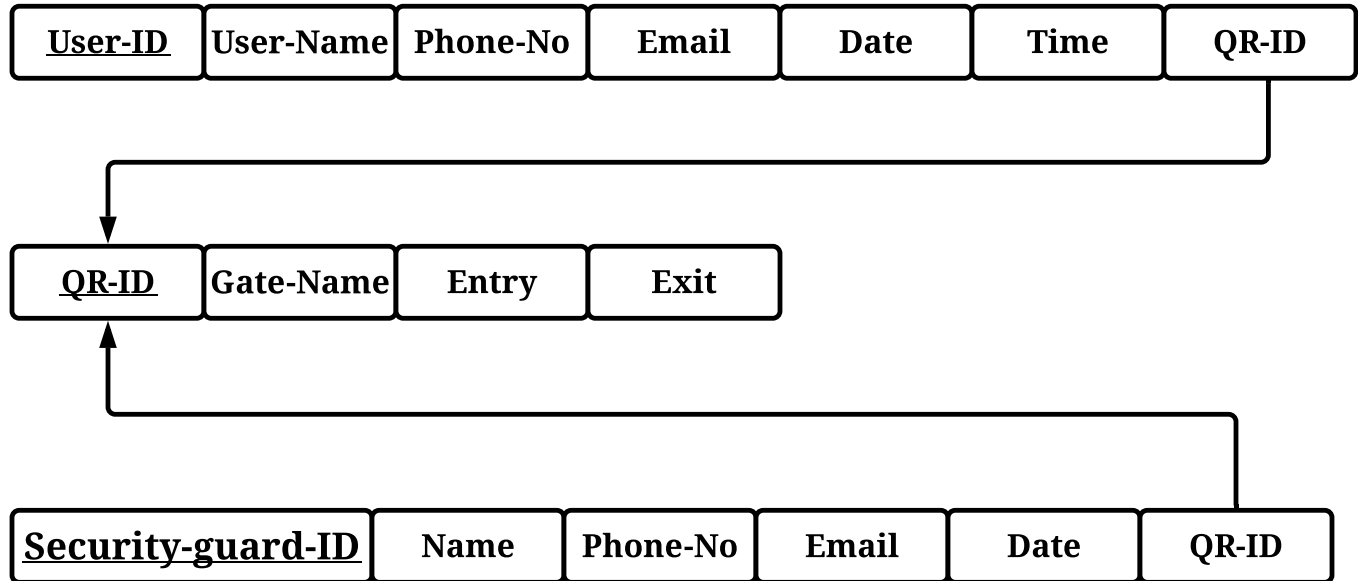
1. Smartphones

## **3. System Design**

# GCIT-GateScan Entity Relationship Diagram

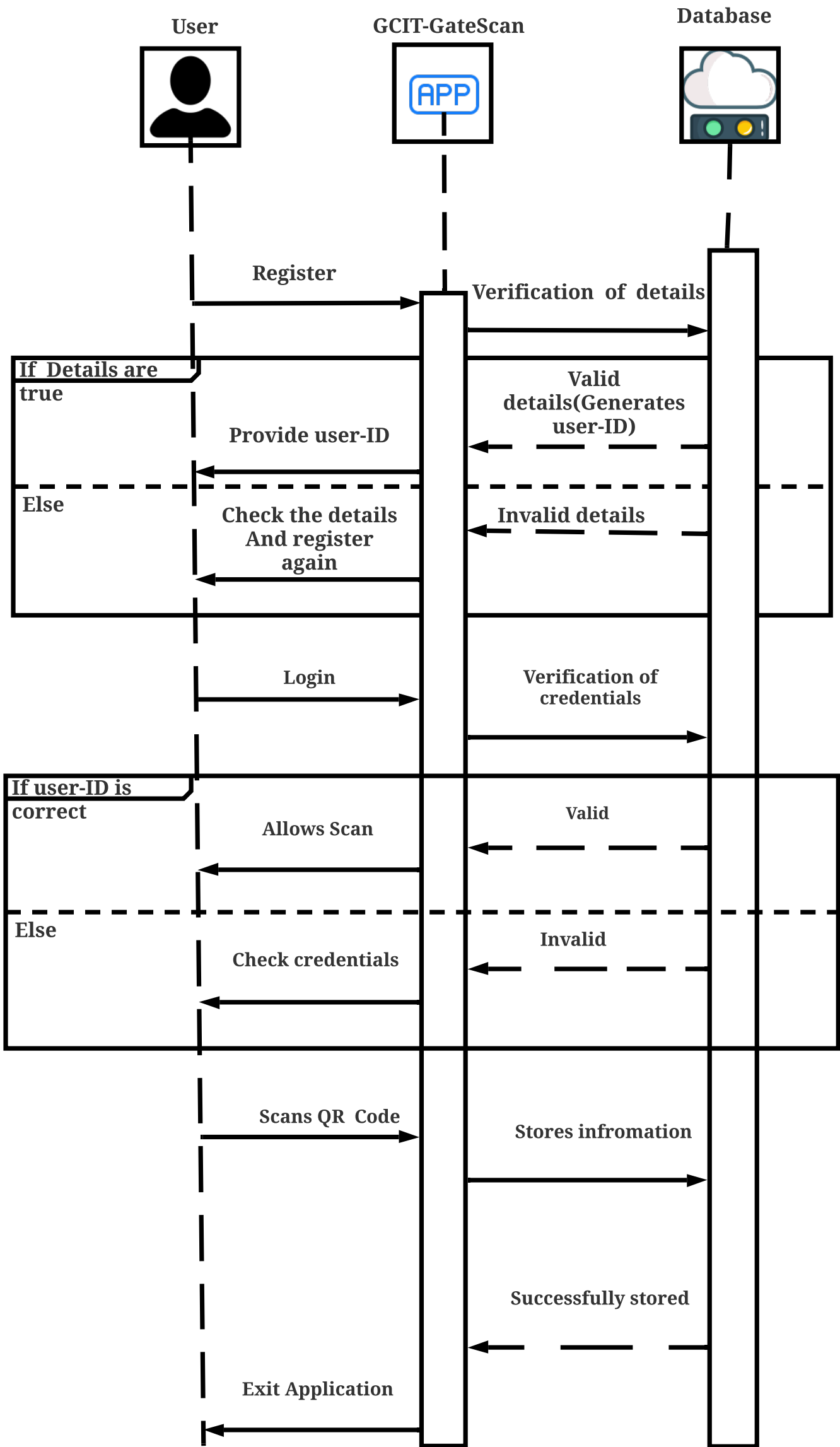


# GCIT-GateScan Relational Schema Diagram

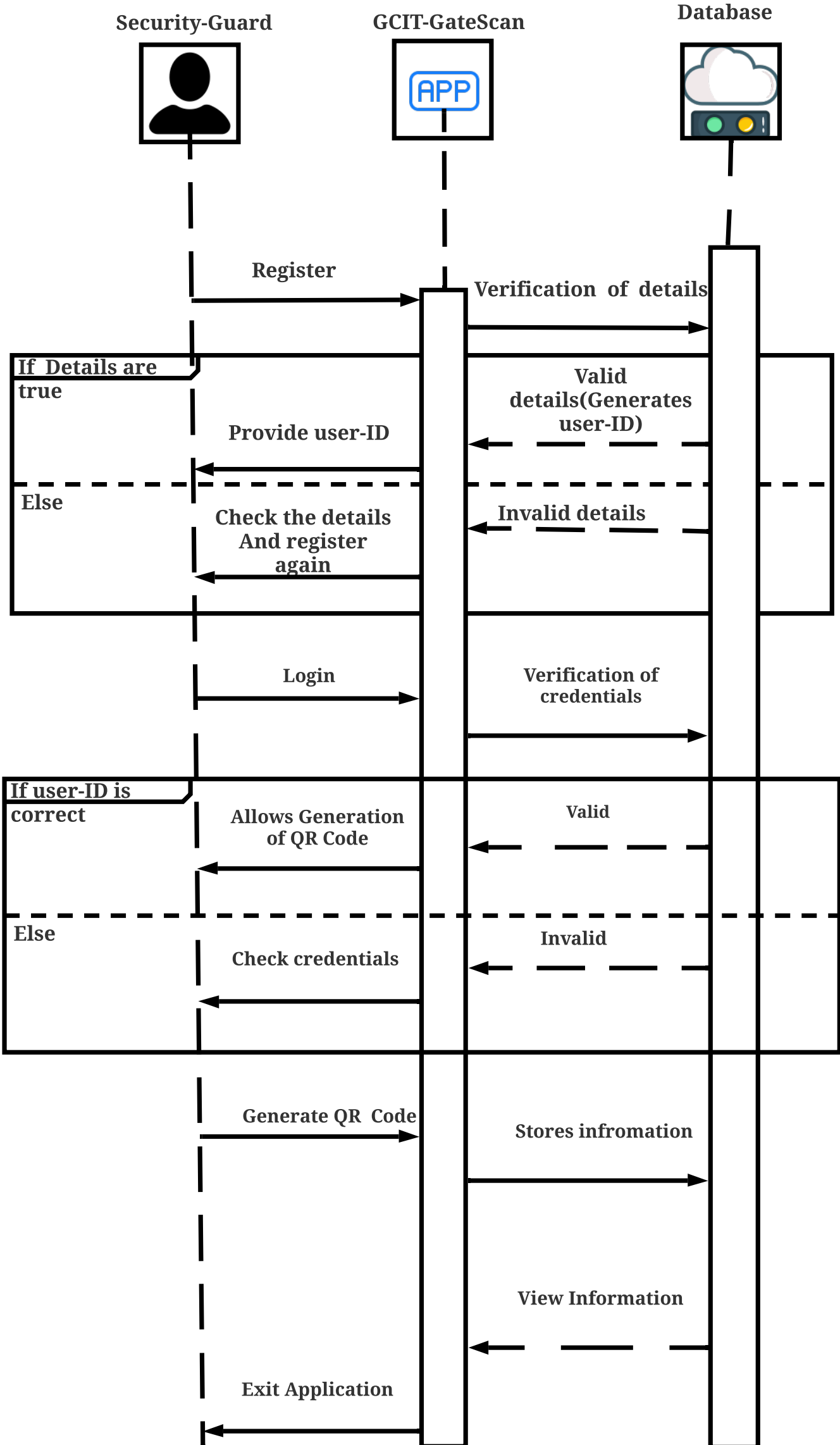


GCIT-GateScan Sequence Diagram

For User



For Security-Guard



# GCIT-GateScan Use Case Diagram

