



Universidad de Guadalajara
Centro Universitario de los Valles

BASELINE

Subject: Software Configuration Management

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PROJECT DESCRIPTION

This project involves creating an app to manage access to a gym. Customers will be able to check in using a fingerprint reader, and the app will show them how many days they have left on their membership. Managers will be able to add, modify or delete customers and their memberships, renew them when necessary, and generate access reports, which can be filtered by customer or by day. It's a handy solution to keep everything organized and automated.

FUNCTIONAL REQUIREMENTS

<i>Use case</i>	<i>functional requirement</i>	<i>Description</i>	<i>Degree</i>
CU_01 Customer registration	RF-01	Allow the administrator to add clients.	High
	RF-02	Allow the administrator to modify clients	High
	RF-03	Allow the administrator to delete clients	High
CU_02 Membership management	RF-04	Assign a membership to the client (day, week or month).	High
	RF-05	Display the remaining days of the membership at the time of access registration.	High
	RF-06	Allow the renewal of memberships when they expire.	High
CU_03 Access registration	RF-07	Authenticate clients using a fingerprint reader.	High
	RF-08	Record the date and time of the client's entry.	High
CU_04 Administrator management	RF-09	Allow the main administrator to add administrators.	High
	RF-10	Allow the main administrator to modify administrators.	High
	RF-11	Allow the main administrator to delete administrators.	High
CU_05 Report generation	RF-12	Create access reports by client.	High
	RF-13	Create access reports filtered by day.	High

Non-functional requirements

RNF_01 Usability:

- The interface must be simple and easy to use for both clients and administrators.

RNF_02 Compatibility:

- The application must be compatible with fingerprint reading devices.

RNF_03 Security:

- The application has different types of users.
- Customers' personal and access data must be protected.

Hardware and software Requirements

Hardware

- Pc device
- Fingerprint reader
- Network connection

Software

- Mysql
- Java

Data Requirements

Customer Data	Full name, phone, birthday, fingerprint . Membership details (start date, expiration date, membership type).
Administrator Data:	Name, email, password. Access level (main or assistant administrator).
Access Data:	Date and time of each customer check-in. Customer associated with the record.
Reporting Data:	Access history (customer, date, time).

Limitations:

Fingerprint Reader Dependency: Access log functionality depends on proper integration with the fingerprint reader hardware. If the fingerprint reader fails, functionality will be limited.

Initial Scalability: The application is designed for a specific gym, so its ability to handle multiple branches may be limited in its initial release.

Internet Access: If a cloud database or online services is chosen, the system will depend on a stable internet connection for some functionality.

Device Compatibility: The application may not be compatible with all fingerprint reader models.

Hardware Restrictions: System performance may depend on hardware specifications (such as the fingerprint reader or the server where the database is hosted).

DESING

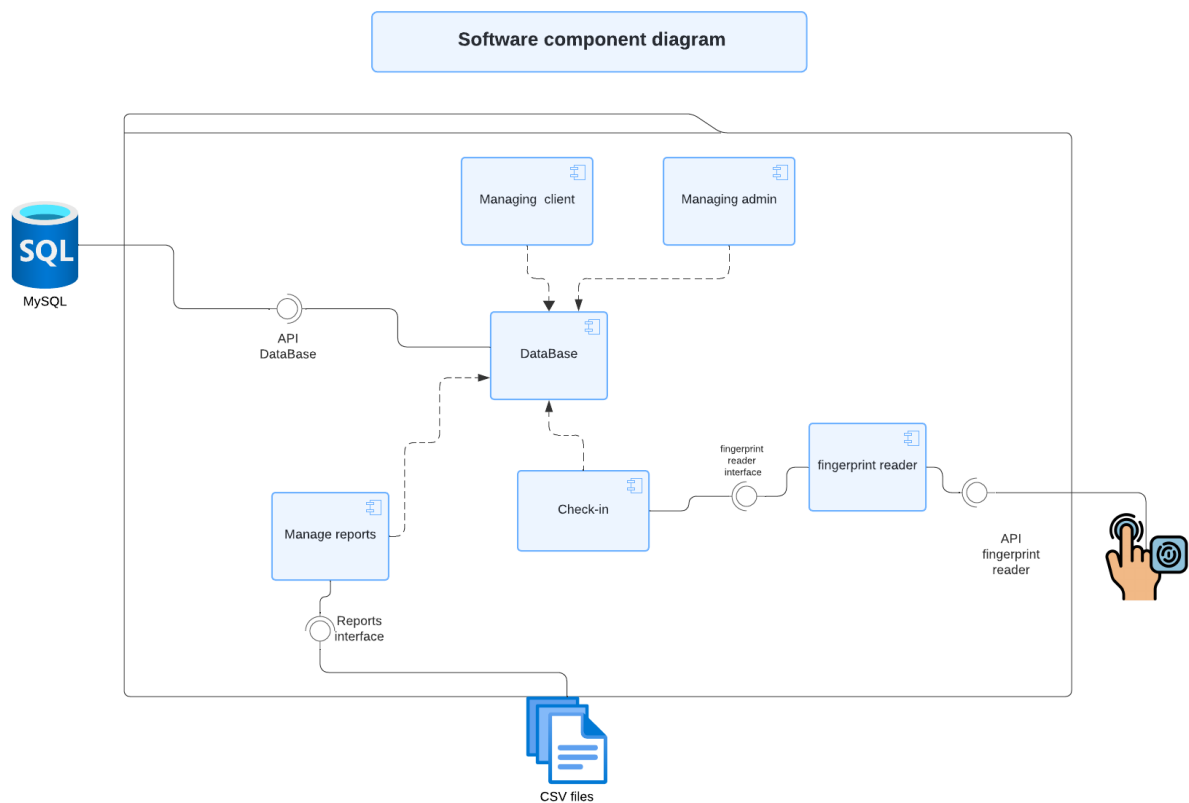
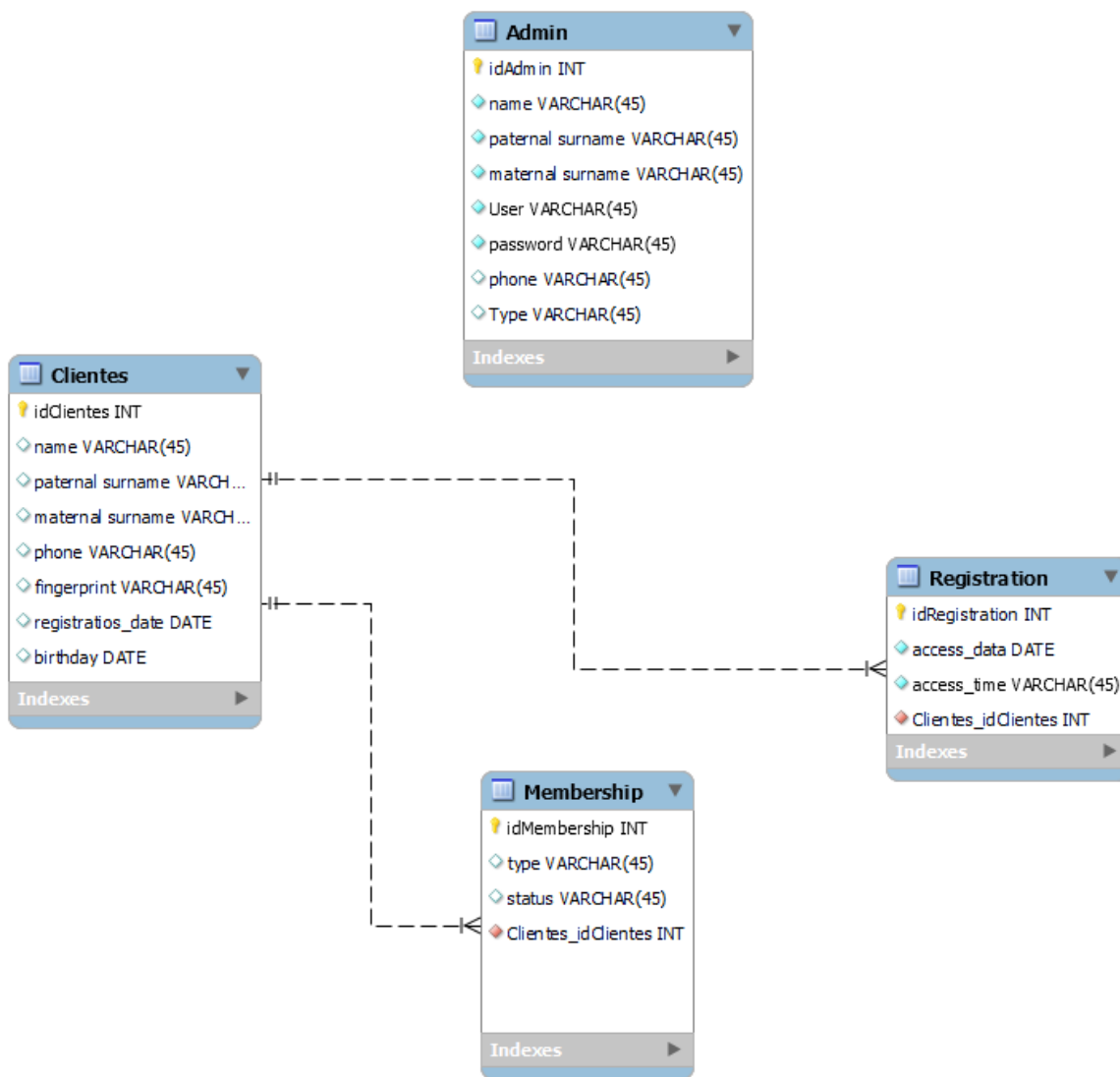


DIAGRAM DATABASE



Case use diagram

