PRD.- Structure of the system and structure of the database

Product description: Develop a mobile application that allows users to search for and find a parking area, close to their location, and generate a structure, both of the system and of the database, that is as efficient as possible to store all the user's information, in a safe way, and that allows to provide satisfaction to the user, and financial support to the tenant.

functional requirements

- **Data storage:** The database will store the user's personal information, such as his name, surname, email, address, etc. As well as data that will be saved throughout its use time, such as your visited places, your places marked as favorites, as well as the scores to different areas.
- **Data validation:** The database must validate the existence of unique users, so that no new user can enter with already existing data.
- **Registry of owners:** The database will store all the information provided by the people who offer a parking area, such as the type of area, the security options, the price, the existing space, etc.
- **Parking request management:** The database will store the parking search requests, and will link them with the existing data and available parking areas to later show the user the areas available for use.
- **Queries and generalization of reports**: Queries can be made to the database to generate statistical reports on the use of the application and user satisfaction.

non-functional requirements

- **Performance**
  The system and the database must be able to handle a good performance, even when there is a large amount of data at the same time, and minimizing the waiting times of the users and be optimal for them.
- **Scalability**
  The database must allow the entry of new users, be they tenants, or people looking for an area, and should not affect the performance of the system and have the ability to increase its storage more easily and efficiently.
- **Security**
  Security measures must be implemented, such as encryption techniques or good security measures so that the data stored in the database cannot be violated or modified by an attacker. In this sense, access to the database must be allowed only for authorized personnel.
- **Availability**
  The database must have backup and data recovery measures for fortuitous cases such as failures or errors, allowing the continuity of the system at all times for users.

- **Usability**
  Navigation through the application and interactions with the database must be simple and clear, minimizing the learning curve and facilitating the adoption of the system by users.
- **Normative compliance:**
  The system and the database must comply with the applicable regulations and standards regarding the protection of personal data, privacy and information security.