**

Mohammad Ali Jinnah University

Chartered by Government of Sindh - Recognized by HEC

Portfolio Maker

**Subject**: Database Management System (DBMS)

**Section**: BM

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# Module 1

* **Analysis of Business Problem**
* **Identification of entities, relationships, users and their roles**
  + - **Entities**:
      * User
      * Experience
      * Skills
      * License
      * Owner
      * Information
      * Contact
      * Personal info
      * Project details
    - **Relationships**:
      * A User can change its information, Info of that user can only change by him.

**(One to One Relationship).**

* + - * A user may have different social media link, Different link belongs to a user **(One to many Relationship).**
      * A user may have different Project, Different Project belongs to a user

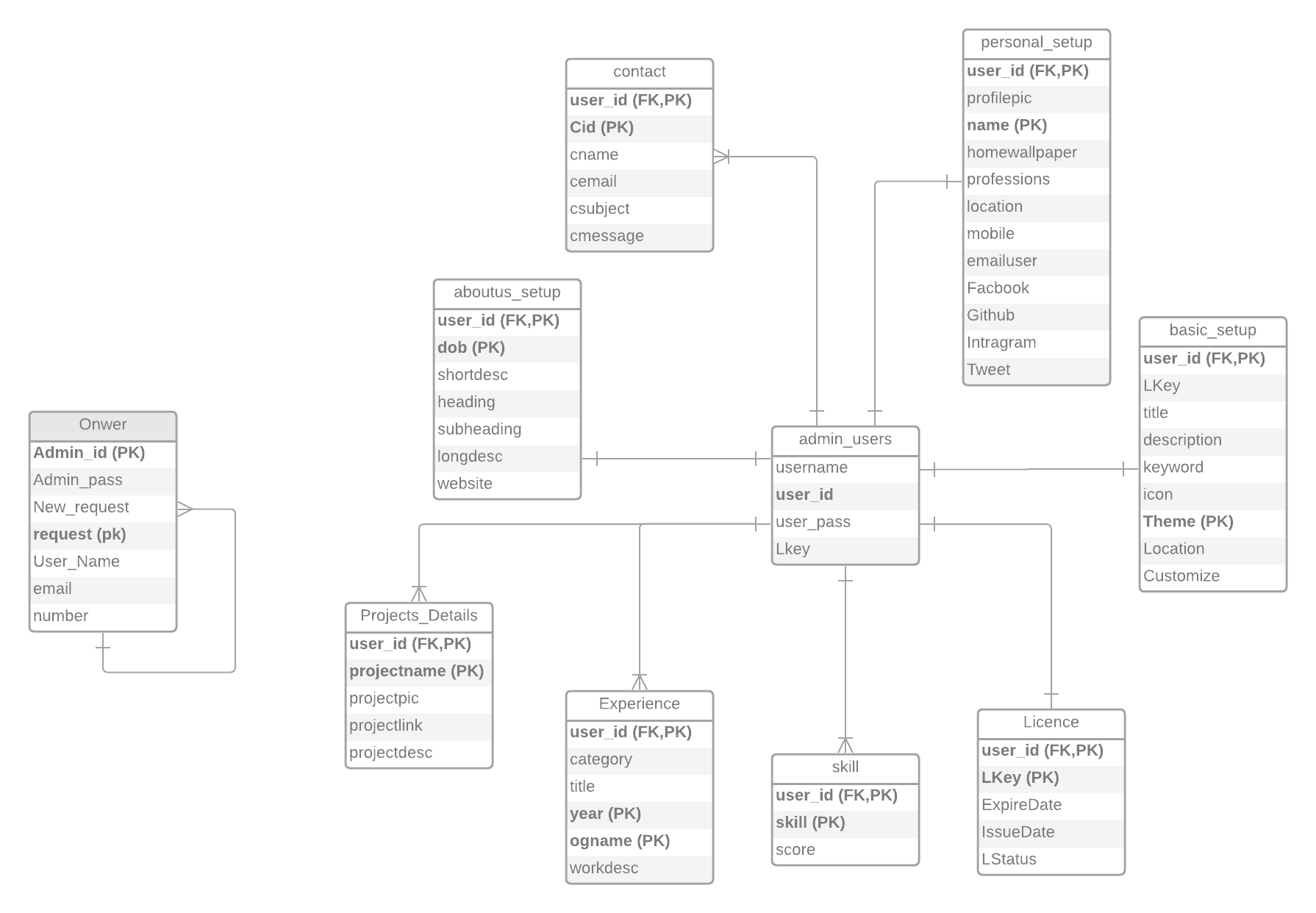
**(One to many Relationship).**

* + - * A user may have different Experience, Different Experience belongs to a user **(One to many Relationship).**
      * A user may have different Experience, Different Experience belongs to a user **(One to many Relationship).**
      * A user has a License key, Single License key belongs to a user

**(One to One Relationship).**

* + - * Admin can block different User through License status

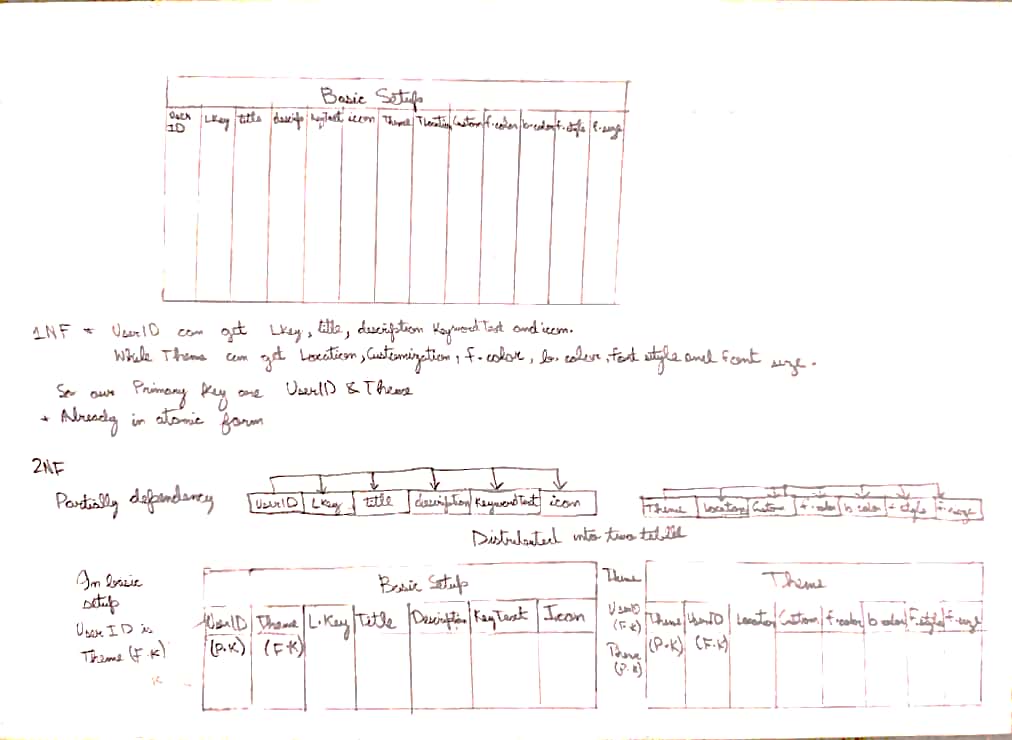
**(One to Many Relationship).**

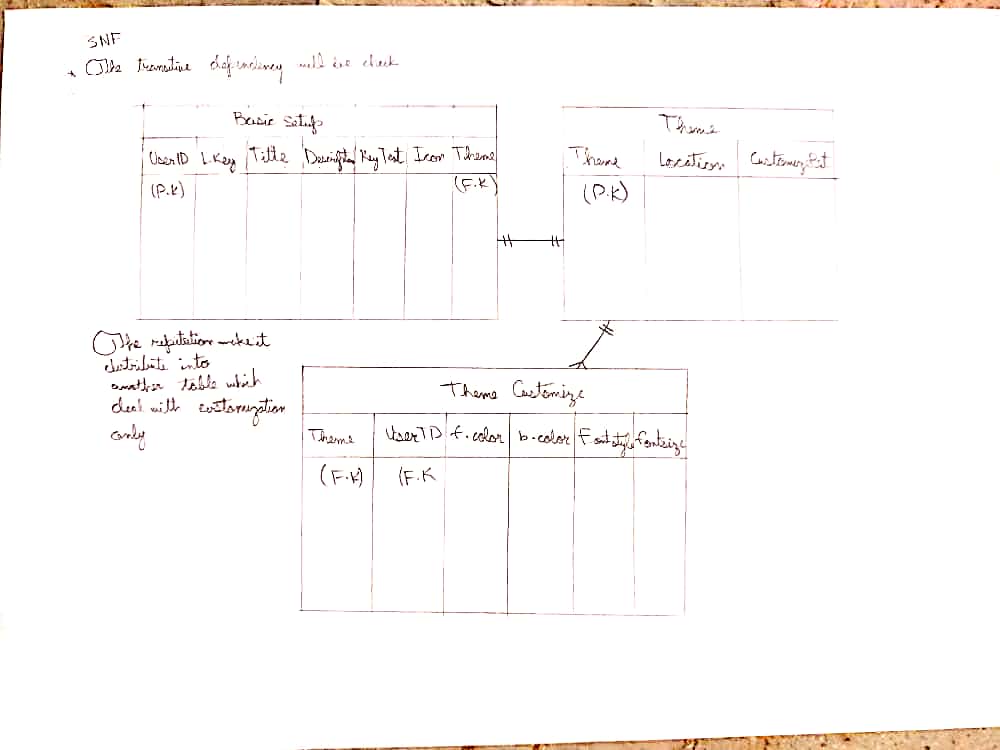
* + - **Users roles**:
      * **Guest**:
        + Can only view different Portfolio.
        + Contact with the different User.
        + Contact with the Admin.
      * **User**:
        + Can edit and view her Portfolio.
        + All the roles of guest.
      * **Admin**:
        + Can create User.
        + Can block different User.
        + All the roles of guest.
* **Entity Relationship Modeling (ER Diagram):**

The ER diagram need some Normalization on different table (**Owner, Personal setup, basic setup**).

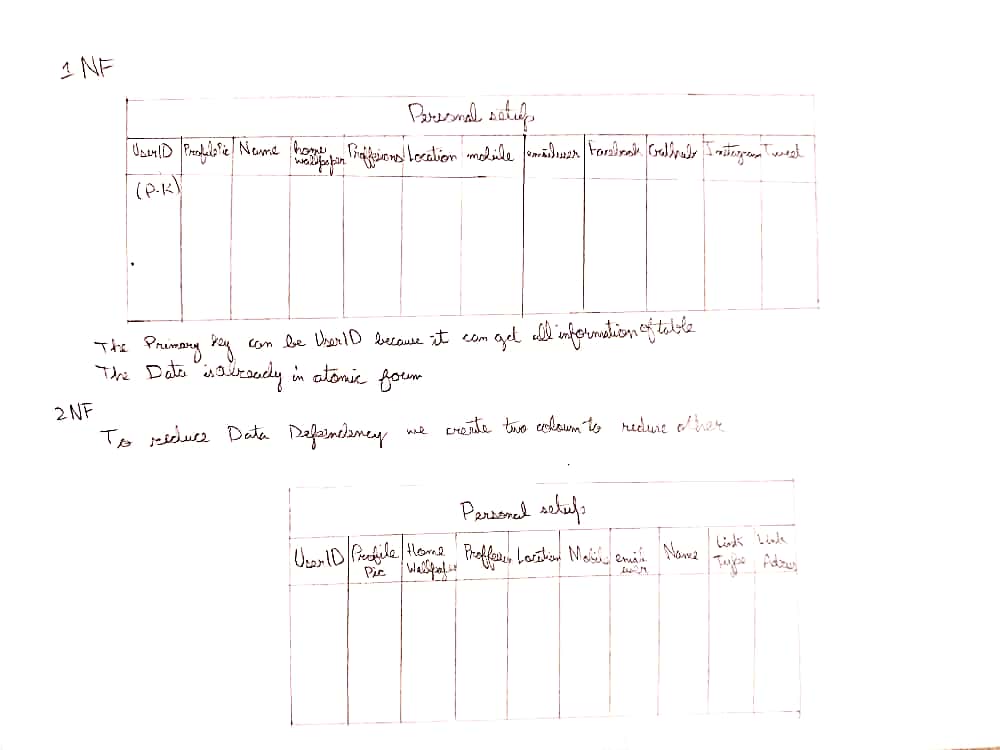
* **Normalization:**

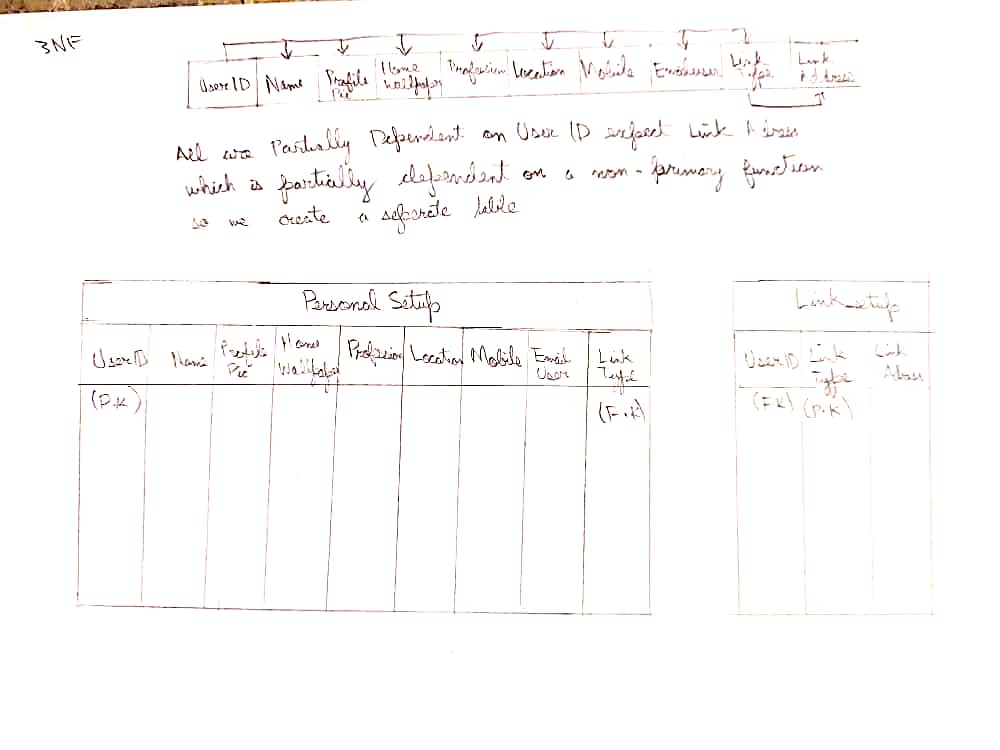
Specific table are been normalized in various steps.

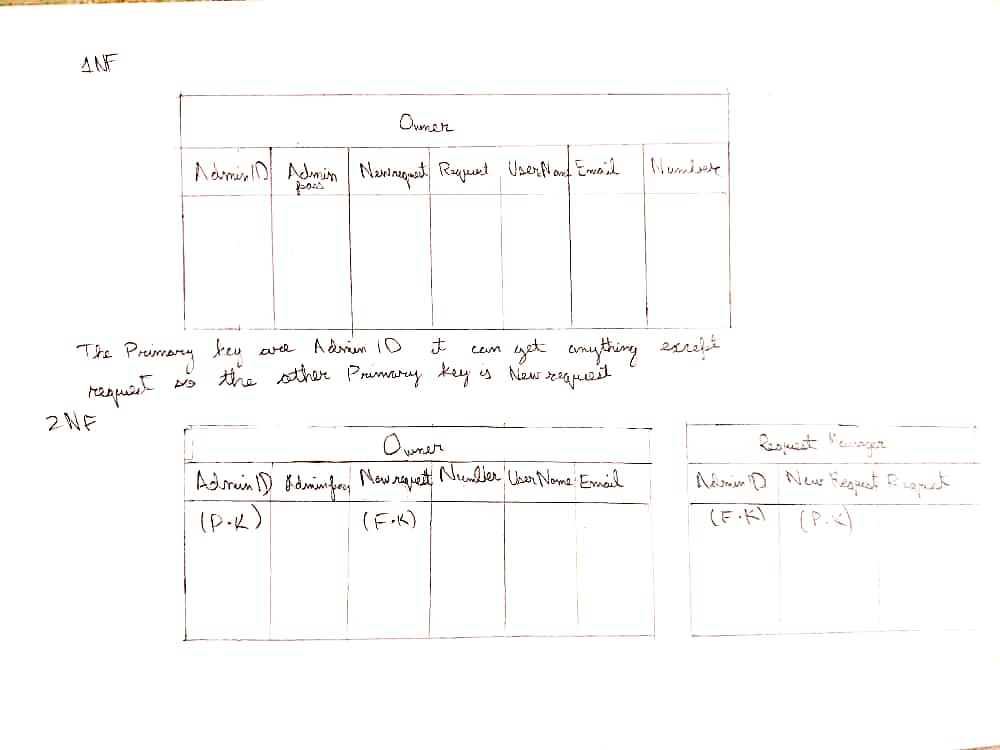
1. **Normalization of Basic Info table:**

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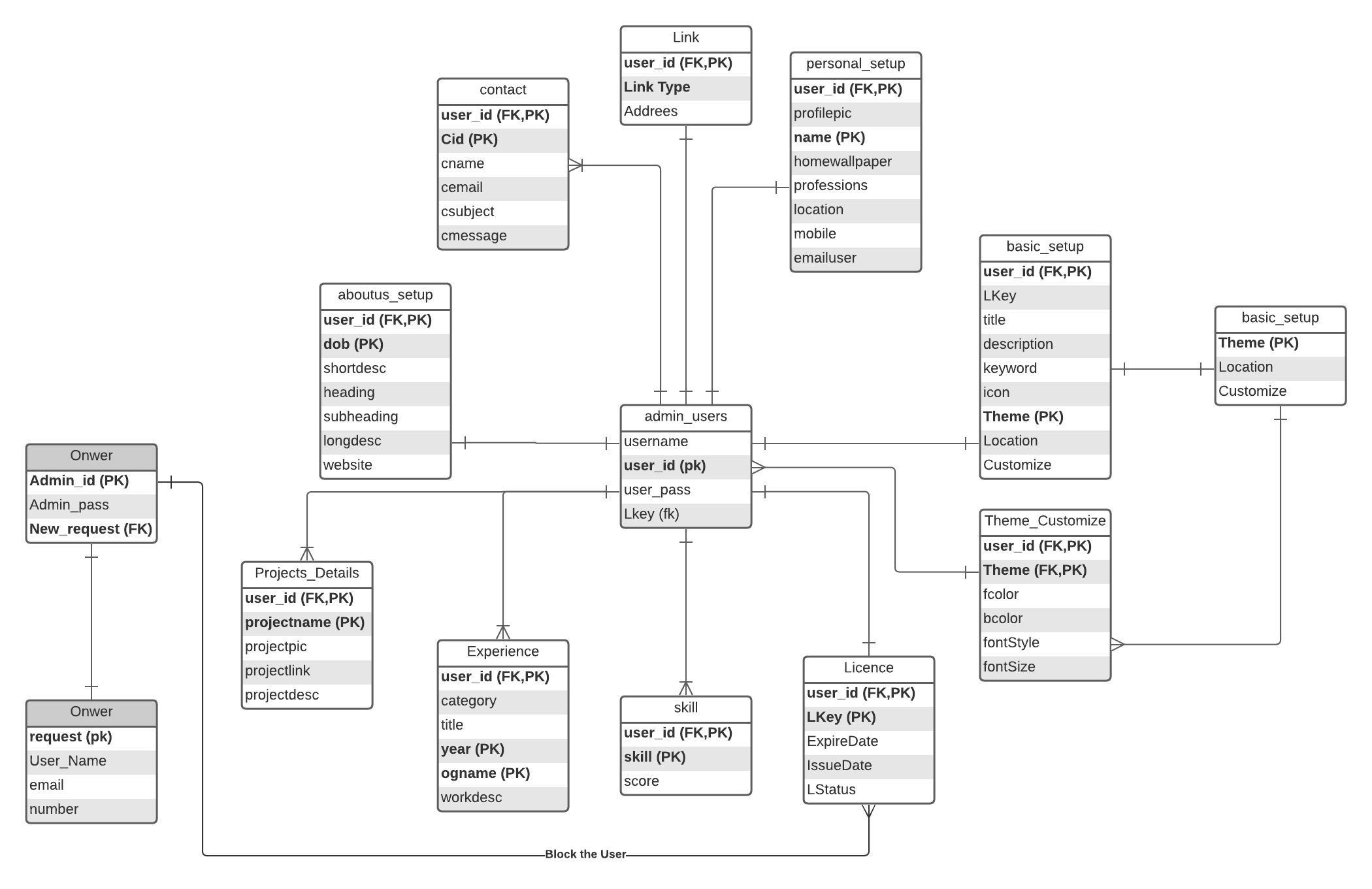
1. **Normalization of Personal Info table:**

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1. **Normalization of Owner table:**

* **Finalize Entity Relationship Modeling (ER Diagram):**

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