1. How can one restrict access to certain columns of a database table?

There is option to give only access to certain columns like – GRANT SELECT(col1,col2) ON table TO role\_name . And the role will have access to only col1 and col2, other would be secured

1. What is the difference between user identification and user authentication?

Identification is information that is mostly public and can declare that you are the person with name, certain email or ID.

Authentication is to proof that you are that person with such tools as password, biometric (fingerprints, face etc.) or something like security tokens.

1. What are the recommended authentication protocols for PostgreSQL?

Recommended authentication protocols in PostgreSQL is SCRAM-SHA-256 to secure passwords,

Certificate-based Authentication (SSL/TLS) is used for encrypting all traffic in SQL similar like HTTPS on the Internet.

1. What is proxy authentication in PostgreSQL and what is it for? Why does it make the previously discussed role-based access control easier to implement?

Proxy authentication allows a certain role to act in another database without switching sessions or reconnecting. It’s used for better security and integrity.

* 1. Centralize connection that give option not to create separate database connections for every user.
  2. Easier for managing credentials for user roles.
  3. Integration with Row Level Security, that give option to manage users access to table columns.
  4. Permission control: control what each user role can do.