**Database Systems**

**Project 2**

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**For Insertion of records :**

Each card represents each task in the modules,

1. User Account
2. User Roles
3. Table
4. Account Privileges
5. Relation Privileges

A picture containing timeline

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**For relating the records :**

Records can be made in 3 ways:

vi.Relate User Account and User Role.

vii.Relate Account Privileges and User Role.

viii.Relate Relation Privileges and User Role and Table.

Timeline

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**For retrieving questions:**

1. Retrieving all privileges associated with a specific user
2. Retrieving all privileges associated with a specific role
3. Check the privileges associated with a user account

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**3.1 The first transaction is to add all the information about a new USER\_ACCOUNT**

Graphical user interface, application, website

Description automatically generated

The above data will be inserted into the tables, After Insertion the table looks as shown below:

Table

Description automatically generated

**3.2 The second transaction is to Add all the information about new Role**

A picture containing text, businesscard, screenshot

Description automatically generated

Graphical user interface, text, application, email

Description automatically generated

**3.3 The third transaction is to add all the information about a new TABLE including the owner user of table**

A new table will be assigned along with the remark to the giver User Id

Graphical user interface

Description automatically generated

Table

Description automatically generated

**3.4 The fourth transaction is to insert a new PRIVILEGE, including the privilege type**

Inserting the data into account privilege table

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Graphical user interface, application

Description automatically generated

Inserting the data into relational privilege table

Graphical user interface, text, application, chat or text message

Description automatically generated

After the data insertion the table is displayed in the following way.

Graphical user interface, text, application, email

Description automatically generated

**3.5 The fifth transaction is to relate a USER\_ACCOUNT to a ROLE**

**Relating the data between User Account and User Role :**

Prior to relating the data we can Idno 2 is linked with UserRole 7

Graphical user interface

Description automatically generated with medium confidence

After relating the Idno 2 with Role 4:

Graphical user interface, text, application, chat or text message

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**3.6 The Sixth transaction is to relate an ACCOUNT\_PRIVILEGE to a ROLE**

**Relating Account Privilege and User Role:**

When Account privilege and user role are related then the below table specified privileges is updated. Example, privilege id 12 and user 2 are related and the same is updated in the specified\_privileges table.

Table

Description automatically generated

**3.7 The seventh transaction is to relate a RELATION\_PRIVILEGE, ROLE and TABLE.**

**Relate Relation privilege, User role and Table:**

When these tables are related, the new relation is appended on the TRACKS table

Graphical user interface, website

Description automatically generated



**3.8 Write queries to retrieve all privileges associate with a particular ROLE, and all privileges associated with a particular USER\_ACCOUNT. Also, write queries that check whether a privilege is currently available (granted) to a particular user account**.

vi.Relate User Account and User Role.

Graphical user interface, text, application, email

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vii.Relate Account Privileges and User Role.

Graphical user interface, application, Teams

Description automatically generated

viii.Relate Relation Privileges and User Role and Table.

Graphical user interface, text, application, email

Description automatically generated