Structured Query Language (SQL) — Advanced

DataBase Foundations

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Outline

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Store Procedures

Store Procedures are a set of SQL statements that are stored in the database and can be executed by calling the procedure name.

PostgreSQL Example

```
CREATE PROCEDURE myProcedure AS
BEGIN
    SELECT * FROM myTable;
END;
```

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Store Procedures

Store Procedures are a set of SQL statements that are stored in the database and can be executed by calling the procedure name.

MySQL Example

```
CREATE PROCEDURE myProcedure()
BEGIN
   SELECT * FROM myTable;
END;
```

Store Procedures

Store Procedures are a set of SQL statements that are stored in the database and can be executed by calling the procedure name.

PostgreSQL Example

```
CALL myProcedure();
```

MySQL Example

```
CALL myProcedure();
```

Store Procedures

Store Procedures are a set of SQL statements that are stored in the database and can be executed by calling the procedure name.

PostgreSQL Example

```
DROP PROCEDURE myProcedure;
```

MySQL Example

```
DROP PROCEDURE myProcedure;
```

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Triggers

Triggers are a set of SQL statements that are executed automatically when a specified event occurs in a database.

PostgreSQL Example

```
CREATE TRIGGER myTrigger
AFTER INSERT ON myTable
FOR EACH ROW
BEGIN
  INSERT INTO myLog VALUES (NEW.id, NEW.name);
END;
```

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MySQL Example

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```

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Views

Views are virtual tables that are created by querying one or more tables in a database.

PostgreSQL Example

```
CREATE VIEW myView AS
SELECT * FROM myTable WHERE country = 'USA';
```

MySQL Example

```
CREATE VIEW myView AS
SELECT * FROM myTable WHERE country = 'USA';
```

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Nested Queries

Nested Queries are queries that are embedded within other queries.

PostgreSQL Example

```
SELECT * FROM myTable WHERE id IN
  (SELECT id FROM myTable WHERE country = 'USA');
```

MySQL Example

```
SELECT * FROM myTable WHERE id IN
  (SELECT id FROM myTable WHERE country = 'USA');
```

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Indexes

Indexes are data structures that are used to speed up the retrieval of data from a database.

PostgreSQL Example

```
CREATE INDEX myIndex ON myTable (name);
```

MySQL Example

```
CREATE INDEX myIndex ON myTable (name);
```

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Thanks!

Questions?

Repo: *github.com/engandres/ud-public/courses/databases-foundations*

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