

# ABSTRACT

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Basic Implementation of Database in shell script

The script immediately runs authentication function that will keep track of users and stores them into a log file.

A database file consist of contents of database

- Administrators can alone create the database file.
- Other Users cannot create or delete the database file.
- Other Users can create a SQL file and perform queries that modifies the contents of the database file.

Then a database shell is created and the shell can perform the following operations:

1. If the user is a database administrator, he can perform a CREATE USER to create a user.
2. EXIT : can terminate the shell
3. LOGOUT : can logout from the database user.
4. PERFORM [filename]: Opens up a new window to write SQL Queries.
5. COMPILE [filename]: Runs the file with SQL Queries.
6. Any invalid operation will create a log entry with an alert message.

The Default administrator is given by,

USERNAME : SYS

PASSWORD : [ Created by the first user ]

For a User Can perform the following operations in a SQL file:

1. INSERT INTO [table\_name] VALUES(value\_1,value\_2,value\_3,...);
  - Inserts the list of values to the given table name
2. UPDATE INTO [table\_name]:

- Updates a value to the attribute
- Can specify a WHERE condition to sort out the records.

### 3. SELECT:

- Should specify the attributes
- ORDER BY sorts the file according to the order specified based on the specified field.
- WHERE CONDITION selects the specifies records from the database
- GROUP BY groups the records based on a particular field
- HAVING conditions for a GROUP BY

### 4. DELETE:

- Deletes all the records by default.
- WHERE sorts out the records based on the field.