Lab 5: Creating the database.

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Normalize the relational schema upto 3NF. Create tables and populate them in your chosen RDBMS.

Database Normalization- This is the database we created now we have to normalize this table

Database: loginapp, Table: users, Purpose: Dumping data

username	name	email	password
tejas	tejas	tejas@gmail.com	123
undefined	undefined	undefined	undefined
t2@gmail.com	tejass	t2@gmail.com	123
t2@gmail.com	tejass	t2@gmail.com	123
t2@gmail.com	tejass	t2@gmail.com	123
t2@gmail.com	tejass	t2@gmail.com	123
t3@gmail.com	tejas3	t3@gmail.com	123
t4@gmail.com	tejas4	t4@gmail.com	123
t5@gmail.com	tejas5	t5@gmail.com	123

Each table cell should contain a single value. In this above table all the data have been saved without any normalization in database. All information is stored in one table as shown above now lets continue with our **1NF (First Normal Form)**

Each record needs to be unique.

1NF Example

Database: loginapp, Table: users, Purpose: Dumping data

username	name	email	password
tejas	tejas	tejas@gmail.com	123
undefined	undefined	undefined	undefined
t2@gmail.com	tejass	t2@gmail.com	123
t3@gmail.com	tejas3	t3@gmail.com	123
t4@gmail.com	tejas4	t4@gmail.com	123
t5@gmail.com	tejas5	t5@gmail.com	123

We have removed similar values from out database and updated the database shown above, now further we have to continue with.

2NF (Second Normal Form)

Single Column Primary Key that does not functionally dependent on any subset of candidate key relation.

It is clear that we can't move forward to make our simple database in 2nd Normalization form unless we partition the table above and create a column USERID containing Unique PK(primary key) that will normalize our database.

Database: loginapp, Table: users, Purpose: Dumping data

userid	username	name	email	password
1	Admin	vipulkarke	admin@gmail.com	admin
2	test	test1	test@gmail.com	test
3	tejas1	tejas	tejas@gmail.com	tejas
4	tejas	tejas	tejas@gmail.com	123
5	tejas2@gmail.com	tejass	tejas2@gmail.com	123
6	t2@gmail.com	tejass	t2@gmail.com	123
7	t3@gmail.com	tejas3	t3@gmail.com	123
8	t4@gmail.com	tejas4	t4@gmail.com	123
9	t5@gmail.com	tejas5	t5@gmail.com	123

Now here what we have done is that we have added that new column USERID which have Unique id auto increment and it wont clash with any other value.

Now we have completed our database Normalization now we will populate this in RDBMS.

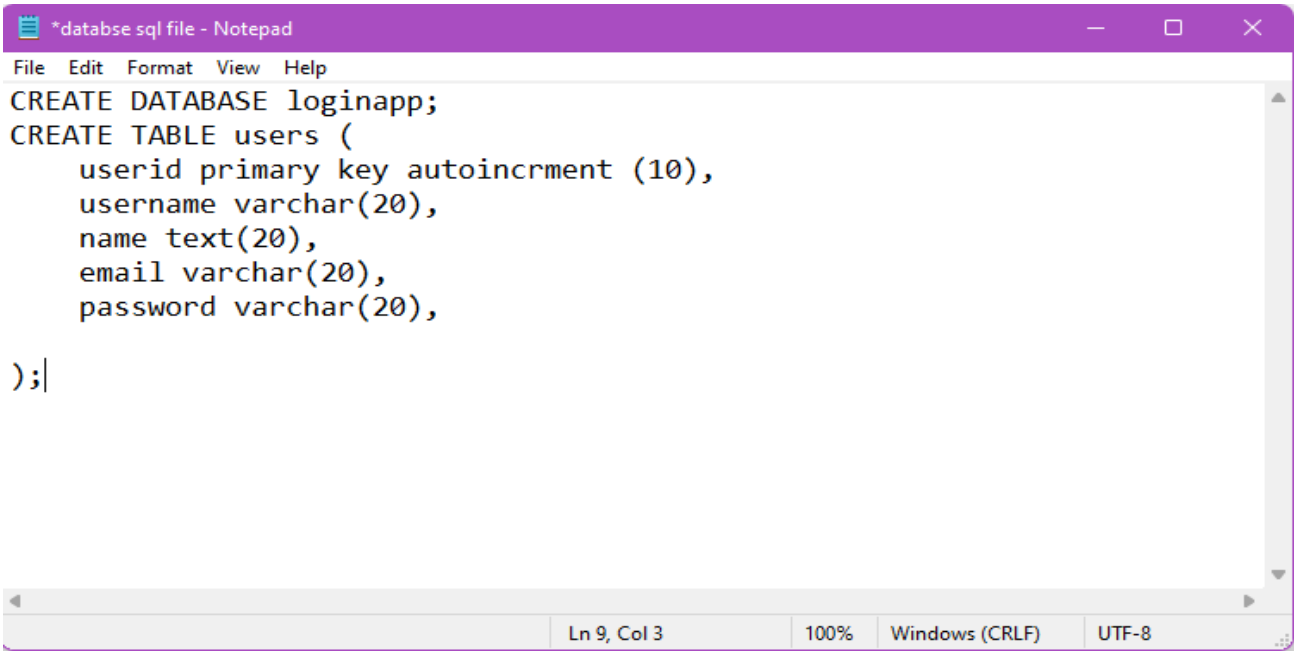
To populate table in RDBMS we have to initialize the query to add data inside out database.

Creating Database:-

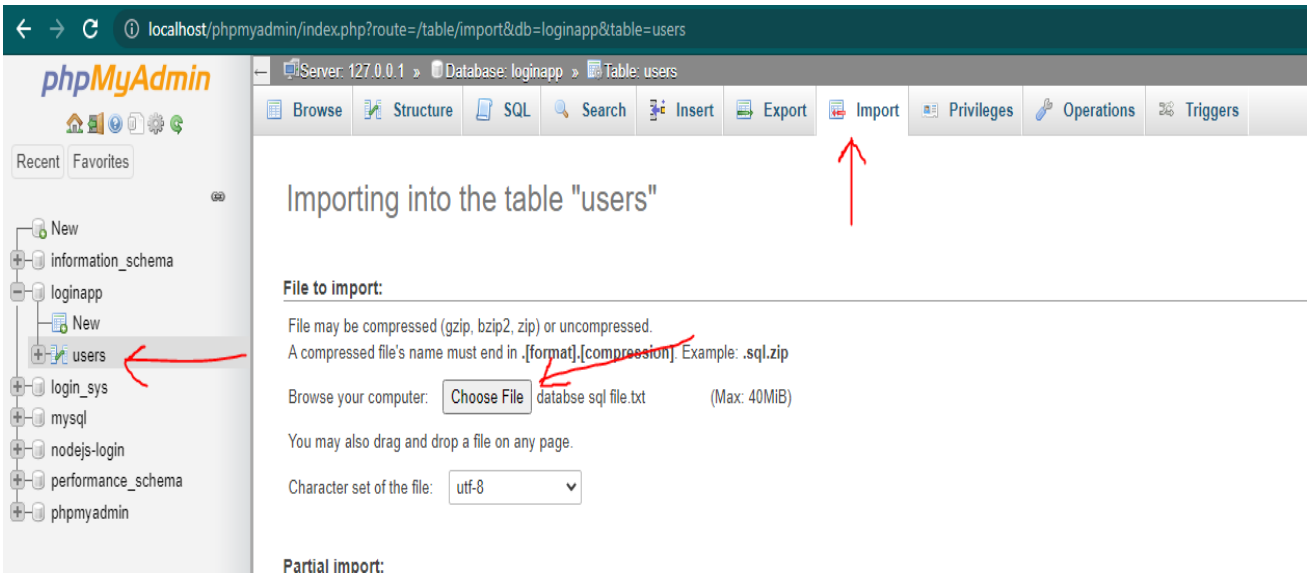
Fire this query to your RDBMS and this will create the table and columns.

```
CREATE DATABASE loginapp;
CREATE TABLE users (
    userid INT AUTO_INCREMENT PRIMARY KEY,
    username varchar(20),
    name text(20),
    email varchar(20),
    password varchar(20),
    );
```

Or else create notepad file and paste this query inside that file and add that file to RDBMS to populate that database.



Now go and start mysql MYPHPADMIN and go to.



This will insert all the queries inside that file into your RDBMS.

Inserting Data:-

This query is to insert values inside USER table.

INSERT INTO `users`(`userid`, `username`, `name`, `email`, `password`) VALUES (' ',' ',' ',' ',' ');

while inserting values in database and it will populate in the table that we have created.