NEPAL COLLEGE OF INFORMATION TECHNOLOGY

BALKUMARI, LALITPUR

A LAB REPORT

ON

WEB TECHNOLOGY

TITLE: Creating Tables with Constraints in XAMPP

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Submitted To:

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Constraints

Primary key:

The primary key constraint uniquely identifies each record in a table. Primary keys must contain UNIQUE values and cannot contain NULL values. A table can have only ONE primary key; and in the table, this primary key can consist of single or multiple columns(fields).

Syntax:

```
CREATE TABLE tablename (
 column1 datatype primary key
);
```

NULL constraint:

NULL keyword to specify that a column can store the NULL value for its data type. This implies that the column need not receive any value during insert or update operations. The NULL constraint is logically equivalent to omitting the NOT NULL constraint from the column definition.

The following example creates the new items table. In new items, the column does not have a default value, but it allows NULL values.

Syntax:

```
CREATE TABLE tablename (
column1 datatype Null,
column2 datatype NOT NULL
);
```

Auto Increment:

Auto-increment allows a unique number to be generated automatically when a new record is inserted into a table. Often this is the primary key field that we would like to be created automatically every time a new record is inserted.

Syntax:

```
CREATE TABLE tablename (
column1 datatype primary key AUTO INCREMENT,
column1 datatype AUTO INCREMENT
);
```

Current Timestamp:

The CURRENT_TIMESTAMP function returns the current date and time, in a 'YYYY-MM-DD hh:mm:ss' format.

Syntax:

```
CREATE TABLE Persons (
 column1 datatype (DATETIME) DEFAULT CURRENT_TIMESTAMP ()
);
```

Unique Constraint:

The UNIQUE constraint ensures that all values in a column are different. Both the UNIQUE and PRIMARY KEY constraints provide a guarantee for uniqueness for a column or set of columns. A PRIMARY KEY constraint automatically has a UNIQUE constraint. However, you can have many UNIQUE constraints per table, but only one PRIMARY KEY constraint per table.

Syntax:

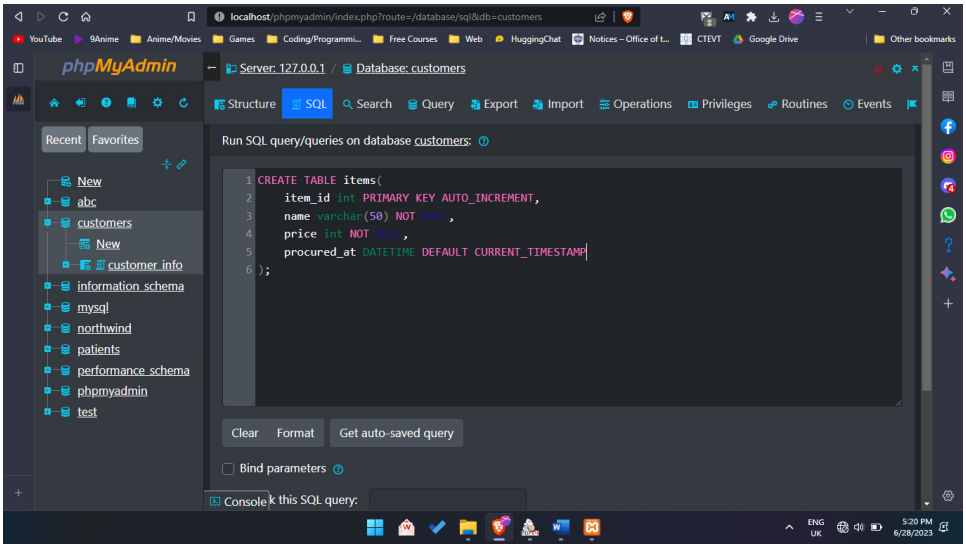
```
CREATE TABLE Persons (
 column1 datatype NOT NULL UNIQUE
);
```

Creating table with constraints

SQL:

1. Go to SQL while in the database.

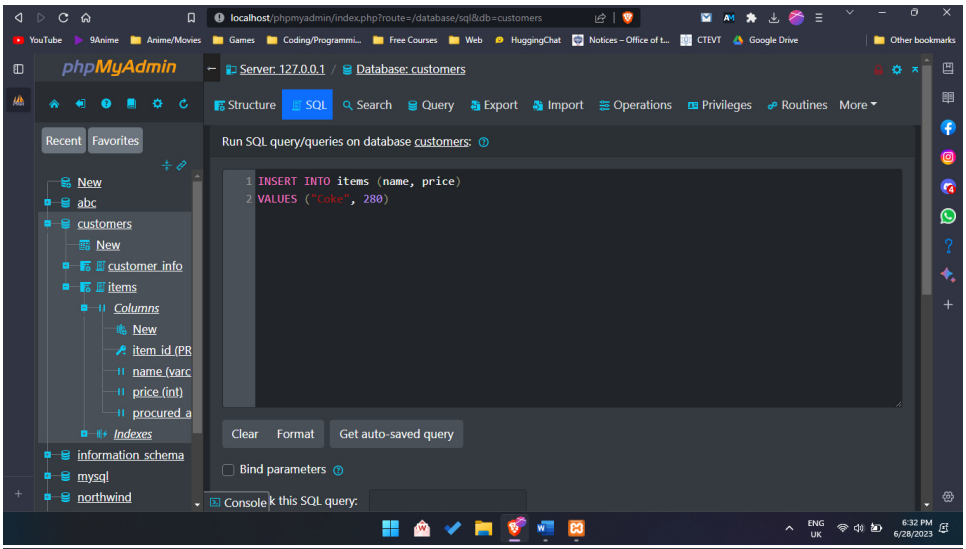
2. Type “CREATE TABLE [TableName] (columnName1 type, columnName2 type,); along with constraints embedded in it.

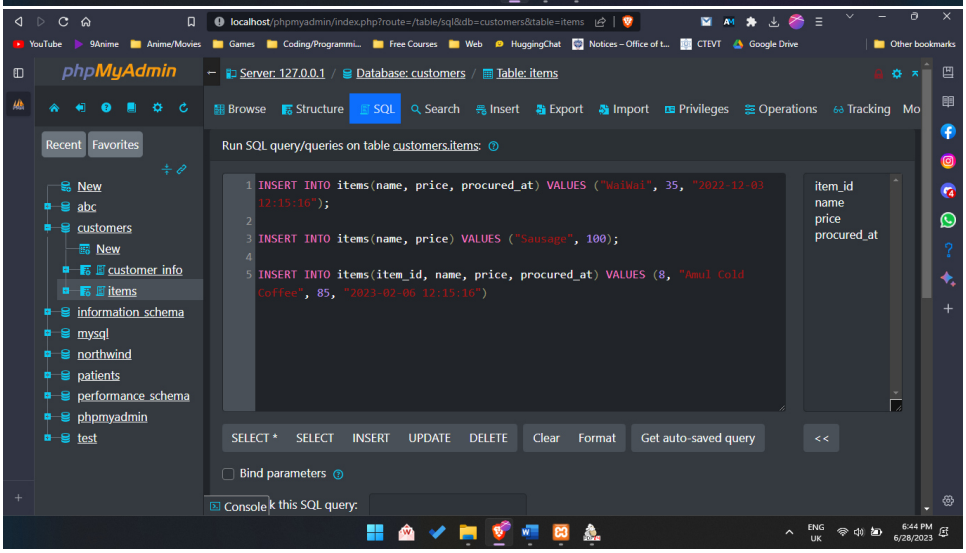


Inserting Data into the Table where constraints have been declared

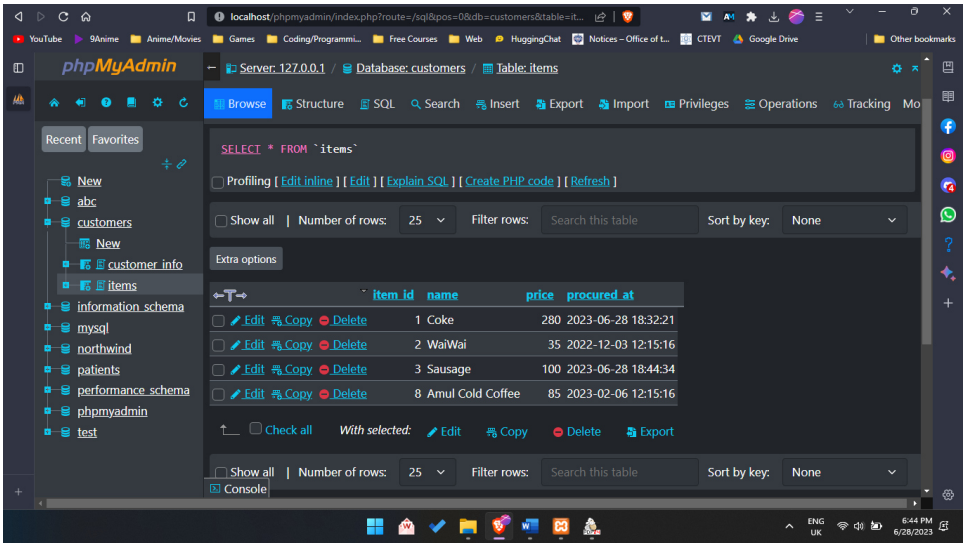
SQL:

1. Go to SQL and type “INSERT INTO `tablename` (`columnName1`, `columnName2`, `columnName3`, …) VALUES (`data1`, `data2`, `data3`, …)”





2. The table can be seen to have added these values:



Two Tables were created with constraints using both UI and SQL.

Conclusion

In this lab session we learnt about different MySQL constraint and their implementation. Along with that we learnt about insert into commands and many more.