This Project consist of one Table of E-commerce website for 5 months October 2020-February 2021.

The table consisted of details of users using the website .

The abbreviations used are below:  
  
UTC-Universal Time Coordinated

IST – Indian Time Standard

**Problem Statement:**  
 Despite the huge usage of ecommerce website a section of the society still prefers offline stores.Why?

**Objective:**  
- To analyze the usage of ecommerce website.

- To provide suggestions for improving the business on basis of Findings.

The data for the analysis has been attached below:

  
  
 The data in excel suggested that it had more than 8 Lakhs records or rows and nine fields or columns namely

1)Event times which was the time of occurrence of the event.  
2) Event type which was categorized under the three heads of adding to cart purchasing and viewing 3) 3) Product ID which was the id of the product   
4) Category ID which was the id of the category to which the product belonged.  
5) Category code which was the code of the category to which the product belonged.  
6) Brand which was the brand of the product.  
7) Price which was the price of the product.  
8) User ID which was the id of the user performing the event.  
9) User session which was the session in which the event was being performed.  
  
Students have to create the database E-commerce and should use that database for the purpose of their analysis.  
  
Data should be analyzed by listing various factors affecting business.  
Also needs to keep in mind all event times in the analysis are given in UTC or universal time coordinated.  
  
Below are the factors which are affecting business basically:  
1)**Month of Sales** : Here students are required to find months in decreasing order of sales and also highest sales in which month and year and lowest sales in which month and year with the help of SQL query.

2)**Top Time of Visit**: Here Students are required to calculate the time for viewing, adding to cart and Purchase time with help of SQL query and need to confirm if mostly viewed and added to cart time is similar to Purchase time or not.  
  
3)**Top brands by Sale**: Here Students are required to find Top 6 brand w.r.t Sales which is the Top Brand followed by other brand with the help of SQL query.  
   
4)**Demand for Items:** Here Students are required to find Top 6 Category which was sold most number of times and should also show the count as well.  
  
5)**Frequency of Purchase**- Here Students are required to find count of Users who has purchase at each time i.e. number of users purchasing once,twice,thrice etc once in a given time span of 5 months and also Maximum number of Times one person has purchased in a given time span of 5 months.  
  
6)**Actual Time purchased** – Here Students have to find the number of times that the item has actually been purchased after the users have viewed the items i.e. the query should give result for actual number of times purchased.  
Also query should be written to find the number of times the item has been viewed.  
  
**Note** – Separate queries can be written if required.  
  
On the basis of the findings a conclusions has to be made by the students what suggestions should be given to business so that the business can run more successfully.

Now coming to the way of importing data since the data set used is very large therefore we are required to use the command line interface to import the data but before that we have to create the table with the exact data types. Please follow the below steps :  
  
/\*Load large CSV files into MySQL Datbase faster using Command line prompt

1. Open MySQL Workbench, Create a new database to store the tables you'll import (eg- FacilitySerivces).

Then, Create the table with matching data types of csv file, usually with INT and CHAR datatypes only (without the data) in the database you just created using Workbench.

2. Open the terminal or command line prompt (Go to windows, search for cmd.exe. Shortcut - Windows button + R, then type cmd)

3. We'll now connect with MySQL database in command line prompt. Follow the steps below:

Copy the path of your MySQL bin directory in your computer. (Normally it is under c drive program files).

The bin directory of MySQL Server is generally in this path - C:\Program Files\MySQL\MySQL Server 8.0\bin

Now, in the Command Line prompt, type cd C:\Program Files\MySQL\MySQL Server 8.0\bin and press enter.

4. Connect to the MySQL database using the following command in command line prompt

mysql -u root -p

(please replace root with your user name that you must have confirgured while installing MySQL server)

(press enter, it will ask for the password, give your password)

5. If you are successfully logged to mysql,

then set the global variables by using below command so that data can be imported from local computer folder.

mysql> SET GLOBAL local\_infile=1;

Query OK, 0 rows affected (0.00 sec)

(you've just instructed MySQL server to allow local file upload from your computer)

6. Quit current server connection:

mysql> quit

Bye

7. Load the file from CSV file to the MySQL database. In order to do this, please follow the commands:

(We'll connect with the MySQL server again with the local-infile system variable. This basically means you want to upload data into a file from a local machine)

mysql --local-infile=1 -u root -p

(give password)

Show Databases;

(It'll show all the databases in MySQL server.)

mysql> USE fs\_db2;

(makes the database that you had created in step 1 as default schema to use for the next sql scripts)

(Use your Database and load the file into the table.

The next step is to load the data from local case study folder into the transactionmaster table in fs\_db2 database)

mysql> LOAD DATA LOCAL INFILE 'C:\\Users\\Prateek\\Google Drive\\Data\_Design\\\_Data Analytics\\Course Design

\\SQL - RDBMS\\Share With Students\\SQL Case Studies

\\SQL Case Study\\SQL Case 3

\\Case 3 - Facility Services SQL - Data & Qns\\TransactionMaster.csv'

INTO TABLE transactionmaster

FIELDS TERMINATED BY ','

ENCLOSED BY '"'

LINES TERMINATED BY '\r\n' IGNORE 1 ROWS;

\*VERY IMP - Please replace single backward (\) slash in the path with double back slashes (\\) instead of single slash\*

Also note that "transactionmaster" is my table name, use the table name that you've given while creating the database.

8. Now check if data has been imported or not.

SELECT \* FROM transactionmaster LIMIT 20;

9. If data has been imported successfully with 100% accuracy without error,

then alter the table to update the datatypes, etc. You're all set now.

\*/

You can also refer to Load Data in file command here - https://www.mysqltutorial.org/import-csv-file-mysql-table/

now coming to the difficulties faced during analysis they event time column had UTC which was text and therefore it will be difficult to import this column as date or time column so students have to import this column as a text column and then I had to segregate that column into two columns one with the date data type consisting of only the date of the event and the other with time data type consisting of only the time of the event.