**WORKSHEET-1**

**SQL**

# Q1 and Q2 have one or more correct answer. Choose all the correct option to answer your question.

1. Which of the following is/are DDL commands in SQL?
   1. Create B) Update

C) Delete D) ALTER

**ANS: A) Create D) ALTER**

1. Which of the following is/are DML commands in SQL?
   1. Update B) Delete

C) Select D) Drop

**ANS: A) Update B) Delete C) Select**

# Q3 to Q10 have only one correct answer. Choose the correct option to answer your question.

1. Full form of SQL is:
   1. Strut querying language B) Structured Query Language

C) Simple Query Language D) None of them

**ANS: B) Structured Query Language**

1. Full form of DDL is:
   1. Descriptive Designed Language B) Data Definition Language

C) Data Descriptive Language D) None of the above.

**ANS: B) Data Definition Language**

1. DML is:
   1. Data Manipulation Language B) Data Management Language

C) Data Modeling Language D) None of these

**ANS: A)** **Data Manipulation Language**

1. Which of the following statements can be used to create a table with column B int type and C float type?
   1. Table A (B int, C float) B) Create A (b int, C float)

C) Create Table A (B int,C float) D) All of them

**ANS: C) Create Table A (B int,C float)**

1. Which of the following statements can be used to add a column D (float type) to the table A created above?
   1. Table A ( D float) B) Alter Table A ADD COLUMN D float

C) Table A( B int, C float, D float) D) None of them

**ANS: B) Alter Table A ADD COLUMN D float**

1. Which of the following statements can be used to drop the column added in the above question?
   1. Table A Drop D B) Alter Table A Drop Column D

C) Delete D from A D) None of them

**ANS: B) Alter Table A Drop Column D**

1. Which of the following statements can be used to change the data type (from float to int ) of the column D of table A created in above questions?
   1. Table A (D float int) B) Alter Table A Alter Column D int

C) Alter Table A D float int D) Alter table A Column D float to int

**ANS: B)** Alter Table A Alter Column D int

1. Suppose we want to make Column B of Table A as primary key of the table. By which of the following statements we can do it?
   1. Alter Table A Add Constraint Primary Key B B) Alter table (B primary key)

C) Alter Table A Add Primary key B D) None of them

**ANS: C) Alter Table A Add Primary key B**

# Q11 to Q15 are subjective answer type questions, Answer them briefly.

1. What is data-warehouse?

A data warehouse may be defined as a hub of information. The data are collected from single or multiple sources. Datawarehouse is the single source of data truth which is helpful for analysis, Decision making and forecasting process in an organization. The data warehouse also called as decision support database is maintained by organization’s operational database. This architecture provides the decision support information of past and current time.

Data from various sources relational databases, transactional systems comes into the data warehouse. These data are in Various from like structured data, unstructured data etc. These data are then process and transformed to their purest from and kept in the warehouse. These data can be accessed by users by different BI tool, SQL Client etc.

Data warehouse find its use in all fields like Airline Industry, Hospitality, Telecommunication, Banking sector, Health care, Public sector etc.

1. What is the difference between OLTP VS OLAP?

**OLAP** (Online Analytical Processing) may be defined as a type of software tool which analyze the data of a database for business decisions. It helps users to analyze data from multiple databases at once. The main objective is data analysis. It is characterized by large volume of data.

It is an online database query management system

It creates a single platform for all business analytical needs like planning, forecasting, analysis etc

**OLTP** (Online Transaction Processing) supports transaction-oriented applications. It checks the day to day transactions. The main objective is data processing. It found it’s uses in online banking system, online ticket booking etc. OLTP uses DBMS

It is an online database modification system

It keeps track of daily transaction of an organization.

1. What are the various characteristics of data-warehouse?

Datawarehouse is a comprehensive database of all data of an organization achieved from various sources. It stores all the data by processing and analyzing them. The data warehouse is subject oriented, integrated, time variant, nonvolatile and summarized.

Datawarehouse is subject oriented means it contains the data which revolves around some subjects matters of interest like sales data, inventory data etc.

The data are obtained from various sources so they are transformed and integrated into their best with a unique from.

It contains the historical data which play an important role in analysis. The data which once make its way to data warehouse can’t be deleted or changed.

As it is helpful for analysis the data saved are aggerated.

1. What is Star-Schema??

Data warehouse is basically of 3 kind named as;

* Enterprise Datawarehouse
* Operational data store
* Data Mart

Datamart is a subset of Datawarehouse. It is designed for particular business line like sales, finance etc. Out of the three different multidimensional schemas of Datawarehouse the start schema is one of them. It is the simplest form of schema in data mart. It is used for creating data warehouse and dimensional data mart. It contains one or more number of fact tables which indexed multiple dimensional tables. Start schema with multiple fact table are termed as centipede schema.

In star schema the fact table holds the quantitative data about the business and the dimensional tables holds the descriptive characters related to the attribute of the fact table.

The dimension tables are joined with the fact table by foreign key and the dimension tables are not joined with each other.

1. What do you mean by SETL?

SETL stands for Semantic-Extract-Transform-Load.

For better business analytics organization uses data from various sources. The data so obtained may be unstructured, semi structured or structured. So, there is a process called ETL or Extract\_Transform\_Load. Its work is to extract data from various source process them and load the clean and aggregated from into the warehouse. This process is the backbone of data warehouse.

But this method is losing its efficiency as it does take semantics into account. This hamper the analysis. To overcome this SETL has been introduced.