MODULE 1: BASIC SQL

1. What is data?

Data is facts (numbers, words, pics)

Data needs to be stored securely so that it can be accessed easily.

1. What is a database?

Repository of data

1. What is DBMS?

Software used to manage the database. It provides functionality to query, update, insert, and delete data.

1. What is RDBMS?

Set of software tools to manage data. (access, storage, organization)

Tabular form

E.g.) MySQL, Oracle database

1. What is SQL?

Structured query language.

1. Basic SQL commands

Create

Insert

Update

Select

Delete

1. Select a statement.

It is used to retrieve data from a table.

Syntax is.

SELECT \* FROM Book

SELECT book-name FROM Book WHERE book-id=’2’.

1. Where clause

It is used with select statements to restrict the result set.

It always uses a predicate, where a predicate is a condition that evaluates to true, false or unknown.

In predicate, we use comparison operators,

=,>,<,>=,<=,<>

1. What is ‘count’?

It’s a built-in function that is used to count the number of rows based on query criteria.

SELECT COUNT(\*) FROM Books;

SELECT COUNT(book\_title) FROM books WHERE book\_title =’harry’;

1. What is ‘DISTINCT’?

DISTINCT is used to remove duplicate values from result set.

Select dinstinct book\_title from books where book\_name =’harry’;

1. What is ‘LIMIT’?

Limit is used to restrict the number of rows retrieved from db.

Select \* from books limit 2;

Select \* from books limit 2 offset 3;

1. INSERT statement?

Used to populate table with data

It’s a DML statement

Syntax is

INSERT INTO

books (book\_id,book\_name,author)

VALUES

(‘101’,’ harry porter’,’rowling’)

(‘102’,’ wings of fire’,’kalam’)

1. Update statement?

DML statement

UPDATE books

SET book-name=’JK Rowling’

WHERE book\_title=’harry porter’

If where clause not specified all the rowswill be modified.

1. DELETE statement
2. It is used to remove one or more rows from a tabke

DELETE FROM books WHERE book\_id=101

DELETE FROM books WHERE book\_id IN (101,102)