Advanced Database

1. **DBMS** - DataBase Management System

2. **SQL –** Structured Query Language

Join Operations – Cartesian product which requires that tuples in the two relations match

1. **Natural Join** - same values for all common attributes
2. **Outer Join** - extension of the join operation that avoids loss of information
3. **Join condition** – defines which tuples in the two relations match.
4. **Join type** – defines how tuples in each relation that do not match any tuple in the other relation

Views - provides a mechanism to hide certain data from the view of certain users.

Primary Key constraint - is used to uniquely identify each record in a table,

for example sa Student Table yung **PRIMARY KEY** natin sa school is yung **STUDENT ID NUMBER** natin which is 2311600158. Para mabilis makilala yung student

Foreign Key constraint - group of columns in a relational database table that provides a link between data in two tables.

For example, si Student, may primary key na **STUDENT ID NUMBER**, pagkatapos ginamit natin siya sa Course Table. Foreign Key na si STUDENT ID NUMBER kasi galing diba siya sa **Student Table**, it means ginamit yung STUDENT ID NUMBER sa Course Table.

Transactions - sequence of query and/or update statements and is a “unit” of work

1. **Commit work -** updates performed by the transaction.
2. **Rollback work -** updates performed by the SQL statements in the transaction are undone

Integrity Constraints - guard against accidental damage to the database

NOT NULL – The data cannot be null or no value

UNIQUE – The data should be unique /walang kapareho

CHECK - clause specifies a predicate P that must be satisfied by every tuple in a relation.

Assertions - a predicate expressing a condition that we wish the database always to satisfy.