ASSIGNMENT 01

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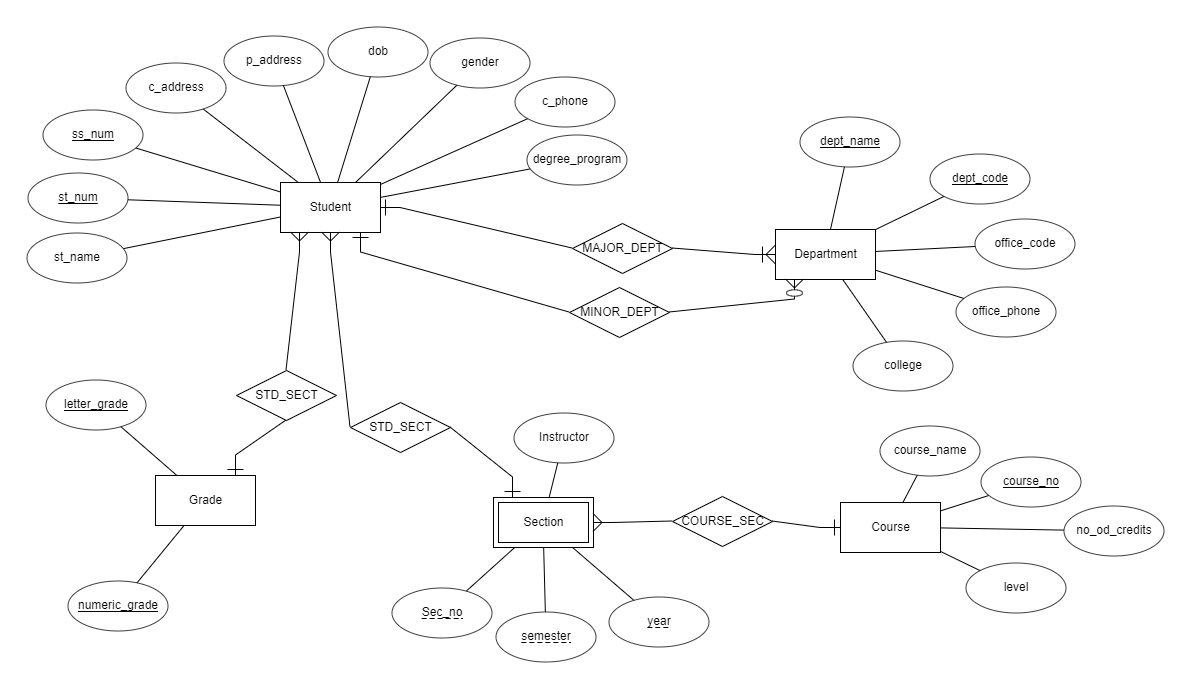
SUBJECT: DATABASE SYSTEM

SECTION: 6b

INSTRUCTOR: MISS.SAFIA FATIMA

QUESTION 01

ERD DIAGRAM OF UNIVERSITY DATABASE SYSTEM.



QUESTION 2

The following statement creates a table Student.

**CREATE TABLE STUDENT(**

**st\_name VARCHAR2(20) PRIMARY KEY,**

**st\_num NUMERIC(4) NOT NULL,**

**ss\_num NUMERIC(4) NOT NULL,**

**c\_addres VARCHAR(20),**

**p\_address VARCHAR(20),**

**dob DATE NOT NULL,**

**gender VARCHAR(10) NOT NULL,**

**c\_phone VARCHAR(12) NOT NULL,**

**degree\_program VARCHAR(15) NOT NULL,**

**CONSTRAINT UC\_STUDENT UNIQUE(st\_num, ss\_num)**

**);**

UNIQUE - Ensures that all values in a column are different

Here st\_num and ss\_name are two unique attributes. So we use as a UNIQUE Constraint in this table.

NOT NULL - Ensures that a column cannot have a NULL value.

PRIMARY KEY - A combination of a NOT NULL and UNIQUE.

VARCHAR is a variable length string data type, so it holds only the characters you assign to it.

The following statement creates a table GRADE.

**CREATE TABLE GRADE(**

**letter\_grade VARCHAR(15) NOT NULL,**

**numeric\_grade VARCHAR(15) NOT NULL,**

**CONSTRAINT UC\_GRADE UNIQUE(letter\_grade ,numeric\_grade)**

**);**

**In this table letter\_grade and numeric\_grade are two unique attributes.** NOT NULL - Ensures that a column cannot have a NULL value.

The following statement creates a table DEPARTMENT.

**CREATE TABLE DEPARTNMET(**

**dept\_name VARCHAR(20) PRIMARY KEY,**

**dept\_code VARCHAR(5) NOT NULL,**

**office\_code VARCHAR(5) NOT NULL,**

**office\_phone char(12),**

**college VARCHAR(12),**

**PRIMARY KEY(dept\_name),**

**CONSTRAINT UC\_DEPARTMENT UNIQUE(dept\_name,dept\_code)**

**);**

For each deparment we have two attributes are unique. Such as dept\_name and dept\_code. **So we use use UNIQUE Constraint. also** NOT NULL - Ensures that a column cannot have a NULL value. Varchar and char are the datatypes of corresponding attributes,

The following statement creates a table Course.

**CREATE TABLE COURSE (**

**course\_name VARCHAR(15) PRIMAY KEY,**

**course\_no NUMERIC(5) NOT NULL**

**no\_of\_credits NUMERIC(2) NOT NULL,**

**level VARCHAR(5),**

**PRIMARY KEY(course\_name),**

**UNIQUE(course\_no)**

**);**

For each Course we have one unique attributes, Such as course\_no. **So we use UNIQUE Constraint. also** NOT NULL - Ensures that a column cannot have a NULL value. Varchar,Numeric and char are the datatypes of corresponding attributes.

The following statement creates a table Section.

**CREATE TABLE SECTION(**

**sec\_no VARCHAR(5) NOT NULL,**

**semester INT NOT NULL,**

**year YEAR NOT NULL,**

**instructor VARCHAR(15) NOT NULL,**

**PRIMARY KEY (sec\_no)**

**);**

For each SECTION we have one unique attributes, Such as sec\_no. **So we use UNIQUE Constraint. also** NOT NULL - Ensures that a column cannot have a NULL value. Varchar,Numeric and year are the datatypes of corresponding attributes.