

## Module 7 Activity 4.0: Creating Constraints

**Estimated Completion Time:** 45 minutes

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### Overview

This exercise will require participants to alter the tables in SQL Server using the SQL language.

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### Instructions

Creating constraints on the tables should be done in SSMS

1. In order to proceed with creating constraints on the tables, login using your user name created in Exercise 01 and then proceed to create the constraints on the tables.

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### Hints

1. Ensure the following while creating the constraints on the table:
  - All the tables are created and end with the word INFO.
  - Create a notepad file and save the file in C:\RDBMS\Day2\constraints.sql
  - In the notepad file write the SQL syntax for creating the constraints.
  - Run the file in SQL Plus as @ c:\RDBMS\Day2\constraints.sql

## Tables

Below are the constraints to be made on the tables.

1) Table Name: ZIPCODE\_INFO

Field Name	Type	Length	Constraint Name
ZIP_CODE	VARCHAR2	5	PRIMARY KEY – ZIP_PK
CITY	VARCHAR2	25	NOT NULL – ZIP_CITY_NN
STATE	VARCHAR2	2	NOT NULL – ZIP_STATE_NN

2) Table Name: INSTRUCTOR\_INFO

Field Name	Type	Length	CONSTRAINT NAME
INSTRUCTOR_ID	NUMBER	8,0	PRIMARY KEY – INSTRUCTOR_ID_PK
INSTRUCTOR_FIRST_NAME	VARCHAR2	25	NOT NULL – INSTRUCTOR_FN_NN
INSTRUCTOR_LAST_NAME	VARCHAR2	25	NOT NULL – INSTRUCTOR_LN_NN
STREET_ADDRESS	VARCHAR2	50	
ZIP_CODE	VARCHAR2	5	FOREIGN KEY – ZIP_INSTRUCTOR_FK

3) Table Name: COURSE\_INFO

Field Name	Type	Length	CONSTRAINT NAME
COURSE_NO	NUMBER	8,0	PRIMARY KEY – COURSE_NO_PK
COURSE_NAME	VARCHAR2	50	NOT NULL – COURSE_NAME_NN
COURSE_PREREQUISITE	NUMBER	8,0	
COST	NUMBER	9,2	NOT NULL – COST_NN

4) Table Name: STUDENT\_INFO

Field Name	Type	Length	CONSTRAINT NAME
STUDENT_ID	NUMBER	8,0	PRIMARY KEY – STUDENT_ID_PK
STUDENT_FIRST_NAME	VARCHAR2	25	NOT NULL – STUDENT_FN_NN
STUDENT_LAST_NAME	VARCHAR2	25	NOT NULL – STUDENT_LN_NN
STREET_ADDRESS	VARCHAR2	50	
ZIP_CODE	VARCHAR2	5	FOREIGN KEY – ZIP_STUDENT_FK

## 5) Table Name: SECTION\_INFO

Field Name	Type	Length	CONSTRAINT NAME
SECTION_ID	NUMBER	8,0	PRIMARY KEY – SECTION_ID_PK
COURSE_NO	NUMBER	8,0	FOREIGN KEY – COURSE_SECTION_FK
SECTION_NO	NUMBER	3,0	NOT NULL -SECTION_NO_NN
INSTRUCTOR_ID	NUMBER	8,0	FOREIGN KEY – INSTRUCTOR_SECTION_FK
LOCATION	VARCHAR2	50	
CAPACITY	NUMBER	3,0	

## 6) Table Name: ENROLLMENT\_INFO

Field Name	Type	Length	CONSTRAINT NAME
STUDENT_ID	NUMBER	8,0	PRIMARY KEY – (STUDENT_ID,SECTION_ID) ENROLLMENT_STUD_SECT_PK FOREIGN KEY-ENROLLMENT_STUDENT_ID_FK FOREIGN KEY-ENROLLMENT_SECTION_ID_FK
SECTION_ID	NUMBER	8,0	
ENROLLMENT_DATE	DATE		

## 7) Table Name: GRADE\_INFO

Field Name	Type	Length	CONSTRAINT NAME
STUDENT_ID	NUMBER	8,0	PRIMARY KEY – (STUDENTID,SECTIONID,GRADE_TYPE_CODE,GRADE_CODE_OCCURANCE) GRADE_STUD_SECT_TYPE_CODE_PK FOREIGN KEY- GRADE_STUDENT_ID_FK FOREIGN KEY- GRADE_SECTION_ID_FK CHECK - CHK_GRADE_TYPE_CODE CHECK VALID VALUES FOR GRADE TYPE CODE - FI,HM, MT,PA,PJ,QZ
SECTION_ID	NUMBER	8,0	
GRADE_TYPE_CODE	CHAR	2	
GRADE_CODE_OCCURANCE	NUMBER	38,0	
NUMERIC_GRADE	NUMBER	3,0	NUMERIC_GRADE_NN DEFAULT 0