DBS Lab Assignment-1

1. Design a database that stores student and course information in the tables as shown below. Define various constraints (domain and integrity) as per requirements on the relations of the database. Assume appropriate data types of the attributes of each relation. Insert some records to each relation.

a. University Database

STUDENT

Name	Student_number	Class	Major
Smith	17	1	CS
Brown	8	2	CS

COURSE

Course_name	Course_number	Credit_hours	Department
Intro to Computer Science	CS1310	4	CS
Data Structures	CS3320	4	CS
Discrete Mathematics	MATH2410	3	MATH
Database	CS3380	3	CS

SECTION

Section_identifier	ction_identifier Course_number Semester		Year	Instructor
85	MATH2410	Fall	07	King
92	CS1310	Fall	07	Anderson
102	CS3320	Spring	08	Knuth
112	MATH2410	Fall	08	Chang
119	CS1310	Fall	08	Anderson
135	CS3380	Fall	08	Stone

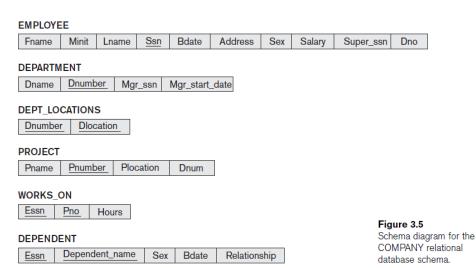
GRADE REPORT

Student_number	Section_identifier	Grade	
17	112	В	
17	119	С	
8	85	Α	
8	92	Α	
8	102	В	
8	135	Α	

PREREQUISITE

Course_number	Prerequisite_number		
CS3380	CS3320		
CS3380	MATH2410		
CS3320	CS1310		

b. Organization database:



 ${\bf 2.} \ {\bf Perform} \ {\bf some} \ {\bf retrieval} \ {\bf operations} \ {\bf to} \ {\bf get} \ {\bf the} \ {\bf following} \ {\bf result} \ {\bf from} \ {\bf the} \ {\bf University} \ {\bf database} \ .$

TRANSCRIPT

	Student name	Student_transcript				
	oludent name	Course_number	Grade	Semester	Year	Section_id
	Smith	CS1310	С	Fall	08	119
		MATH2410	В	Fall	08	112
	Brown	MATH2410	Α	Fall	07	85
		CS1310	Α	Fall	07	92
		CS3320	В	Spring	08	102
٥		CS3380	Α	Fall	08	135

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COURSE_PREREQUISITES

	Course_name	Course_number	Prerequisites
	Database CS3380		CS3320
	Database	G33360	MATH2410
)	Data Structures	CS3320	CS1310

(b)