

Sample Data

NOTE: Below is the description of sample data that you need to enter in your application before coming for the demo. Some more data will be provided on the day of the demo. The tables just represent the data and they do not need to map directly to any single table. The important thing is that your application should be able to capture the information. Also consider this data as bare minimum (this means that information like a student's address/contact information is not provided but should be captured, there might be more instances like these)

Below are the cost per credit costs for different levels and classifications:

Level	Residency Classification	Cost Per Credit
Graduate	In State	500
Graduate	Out Of State	800
Graduate	International	1000
Undergraduate	In State	400
Undergraduate	Out Of State	700
Undergraduate	International	900

Below are the credit limits for different levels and classifications:

Level	Residency Classification	Minimum Credits	Maximum Credits
Graduate	In State	0	9
Graduate	Out Of State	0	9
Graduate	International	9	9
Undergraduate	In State	0	12
Undergraduate	Out Of State	0	12
Undergraduate	International	9	12

The Grading System

Grade	Grade Points/Credit Hour
A+	4.33
A	4.00
A-	3.67
B+	3.33
B	3.00

B-	2.67
C+	2.33
C	2.00
C-	1.67

The application has a course administrator with the following details:

Administrator

First Name : Albus
Last Name : Dumbledore
D.O.B : 05/26/1984
Employee Id : 1111
Username : alby
Password : hogwarts

So, firstly you need to enter data for FALL 2016 Semester :
6 Courses were offered as part of the semester.

Name	Id	Credits	Department	Level	Class Size	Waitlist Size	Schedule	Prerequisite Courses
Introduction to Computer Science	CS401	3	CS	Under Graduate	2	2	M,W 12:00PM-1:00PM	None
Database	CS510	3	CS	Graduate	5	2	Tu,Th 1:00PM-2:00PM	None
Software Engineering	CS515	3	CS	Graduate	3	2	Tu,Th 2:00PM-3:00PM	None
Internet Protocols	CS 520	3	CS	Graduate	2	2	M,W 11:00AM-12:00PM	None
Independent Study	CS525	Variable (1-3)	CS	Graduate	2	0	M,W 3:00PM-4:00PM	Requires Special Permission
VLSI	CE420	3	ECE	Under Graduate	4	2	F 3-5 PM	None

All the student accounts will have

Username : username
Password : password

Name	Student Id	DOB(MM-DD-YYYY)	Status	Level	Department	Bill Amount(Due after the Fall 2016, 0 indicates Bill was paid)	Fall Courses Registered For and Grades Received
Harry Potter	101	01/12/1990	In State	Under Graduate	ECE	1200	CE420(A)
Hermione	102	04/16/1989	In-State	Graduate	CS	0	CS510(B+)

Granger							CS515(B+)
Ron Weasley	103	12/19/1991	Out of State	Graduate	CS	0	CS515(A) CS520(A-) CS530(A+)
Draco Malfoy	104	03/21/1992	International	Graduate	CS	0	CS510(A) CS515(B+) CS525 (3 Credits)(A+)

Enforce the deadlines and enter grades for the students as mentioned in the table above. After that pay the bill for the students except for **Harry Potter**.

Data for Spring 2017 Semester

7 Courses were offered as part of the semester:

Name	Id	Credits	Department	Level	Class Size	Waitlist Size	Schedule	Prerequisite Courses
Numerical Methods	CS402	3	CS	Under Graduate	2	2	M,W 11:00AM-12:00PM	CS401
Database	CS510	3	CS	Graduate	5	2	Tu,Th 1:00PM-2:00PM	None
Algorithms	CS505	3	CS	Graduate	2	2	M,W 11:00AM-12:00PM	None
Cloud Computing	CS 521	3	CS	Graduate	3	2	Tu,Th 1:00PM-2:00PM	GPA >= 3.5 AND CS520
Independent Study	CS525	Variable (1-3)	CS	Graduate	2	0	M,W 2:00PM-3:00PM	Requires Special Permission
Dev-Ops	CS530	3	CS	Graduate	2	2	M,W 11:00AM-12:00PM	CS515
VLSI II	CS421	3	ECE	Under Graduate	4	2	Tu,Th 4:00PM-5:00PM	CE420

All the students enrolled in the fall semester are continuing in the spring semester as well. Enrolment information for new students might be provided on the day of the demo.

Sample Queries

The following queries will be run on Demo day so make sure your application can produce the appropriate results.

1. Find names of all students that are eligible to enroll for CSC 521 in Spring semester.(Based on prerequisites)
2. Give list of students whose GPA decreased after the current semester
3. List all courses and number of students enrolled per semester.