University Database System

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Outline

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2. Project Aim
3. System Features
4. System Requirements
5. Data Tables & Diagrams
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Introduction

- Over the years of our education, we have seen the same database system when it comes to registering for classes or updating personal information.

- Our goal was to create a database system to increase efficiency in having data stored and retrieved in a categorized manner

Project Aim

- To recreate a better version of a university database which is able to store information in a organized manner

- To increase efficiency in having data stored and the way data is retrieved.

System Design

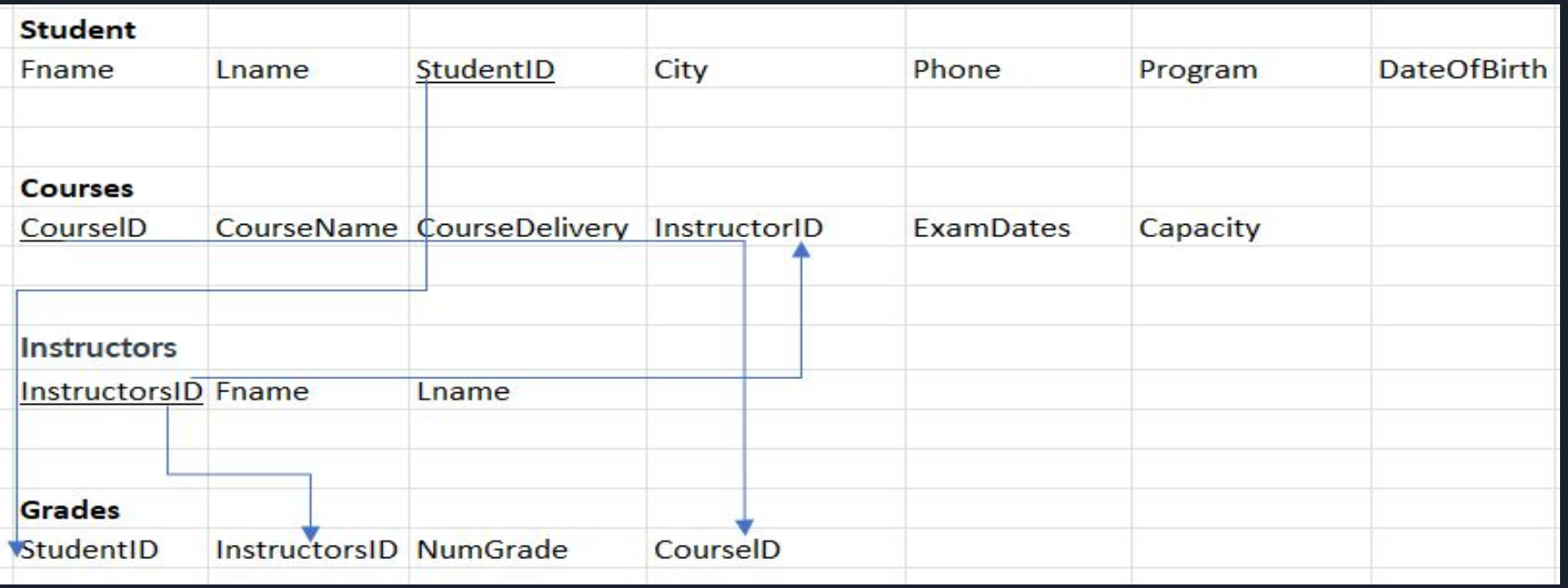
System Features

- Login and create an account page which stored into our database
- Holds and stores data for students personal information, courses, instructors information and grades
- Display tables for various different situations. Ex if student grade is under 50 percent

Data Tables & Diagrams

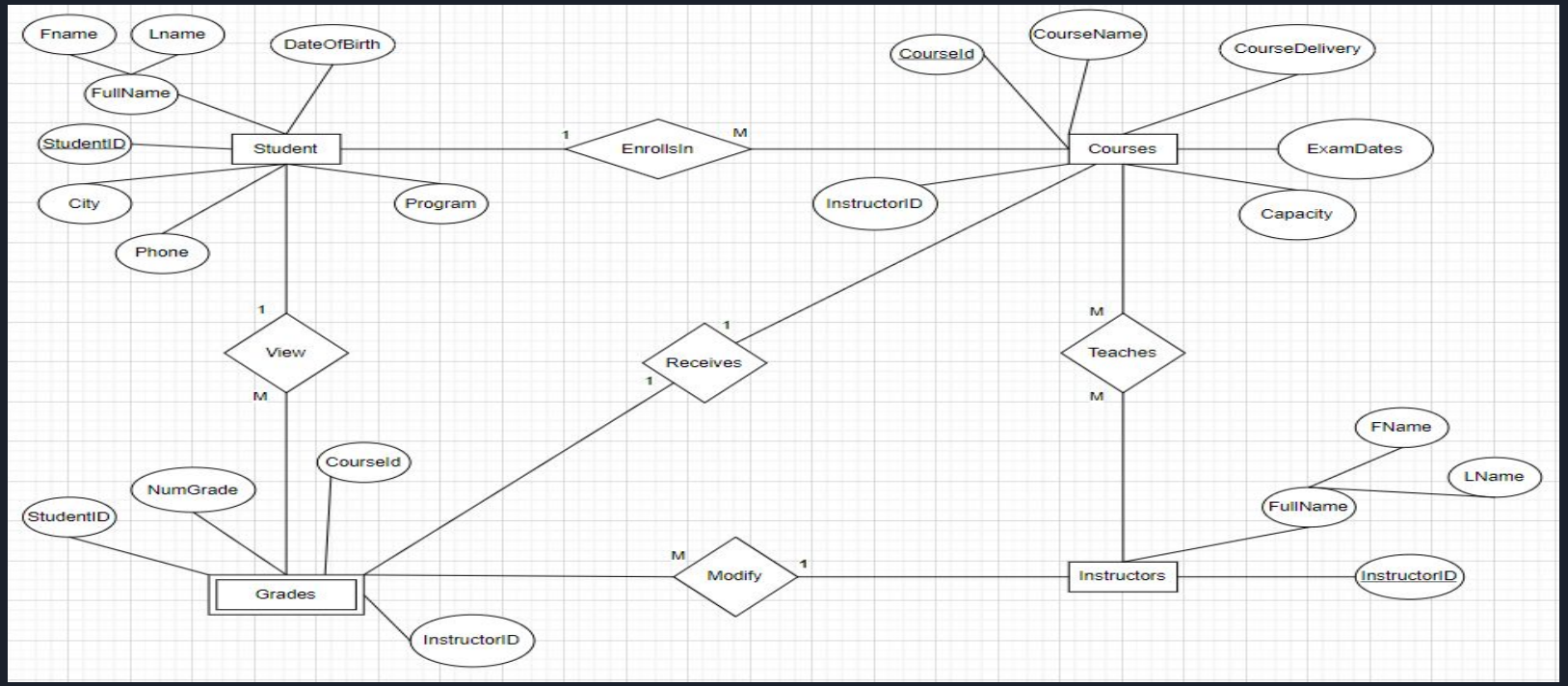
Relational Schema

Student						
Fname	Lname	StudentID	City	Phone	Program	DateOfBirth
Courses						
CourseID	CourseName	CourseDelivery	InstructorID	ExamDates	Capacity	
Instructors						
InstructorsID	Fname	Lname				
Grades						
StudentID	InstructorsID	NumGrade	CourseID			



Data Tables & Diagrams

ER Diagram



Data Tables & Diagrams

Sample Data

Student

StudentID	Fname	Lname	City	Phone	DateOfBirth	Program
10001	Rayyan	Mohammed	Toronto	416-875-2145	2001-10-23	Engineering
10002	Daniyal	Khan	Toronto	647-854-7865	2001-03-26	Business
10003	Charles	Olagunju	Pickering	209-451-8765	2001-07-24	Health Science
10004	Yousif	Sarmad	Oshawa	905-324-7851	1992-01-01	Engineering
10005	Zaeem	Khalid	Oshawa	905-789-3214	1990-05-12	Business
10006	John	Doe	Mississauga	209-147-8532	1983-12-15	Nursing

Courses

CourseID	CourseName	CourseDelivery	Capacity	ExamDates	InstructorID
ENG3200	Intro to Engineering	In Person	140	2021-12-15	20001
ENG3850	Engineering Economics	In Person	140	2021-12-12	20001
BUS2840	Accounting Principles	Hybrid	200	2021-12-13	20002
BUS1470	Intro to Business	Online	500	2021-12-09	20002
HSCI4800	Life Science Advanced	Hybrid	200	2021-12-12	20004
NUR1000	Nursing Principles	In Person	100	2021-12-15	20006
HSCI1000	Intro to Life Science	Online	500	2021-12-05	20003
NUR4000	Long Term Care	Hybrid	200	2021-12-07	20005

Instructors

InstructorID	Fname	Lname
20001	Khalid	Hafeez
20002	Usman	Aziz
20003	Farhan	Mohammed
20004	David	Suzuki
20005	LeBron	James
20006	Franklin	Torgbo

Grades

StudentID	CourseID	InstructorID	NumGrade
10001	ENG3200	20001	83
10001	ENG3850	20001	74
10002	BUS2840	20002	91
10002	BUS1470	20002	89
10003	HSCI4800	20004	84
10003	HSCI1000	20006	62
10004	ENG3200	20001	53
10004	ENG3850	20001	66
10005	BUS2840	20002	41
10005	BUS1470	20002	86
10006	NUR1000	20006	33
10006	NUR4000	20005	27

University Database System Demonstration

Conclusion

- Some challenges we faced were identifying primary and foregin keys in SQL , we had some trouble making our 5 custom views

- Thus creating a database system that was efficient and reliable when storing and retrieving data was quite challenging.

- Overall we faced and overcame all challenges in our path

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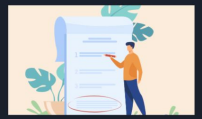

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QUESTIONS?

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Data Tables & Diagrams

ER Diagram