PRISTINI
KNOWLEDGE GROUP

SQL Project

School Management System

Presented By:
Lina Ben Salem

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Plan

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I Development Environment

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Introduction

I Development Environment

VSCODE

XAMPP

Python

- PrettyTable Library

SQL Connector

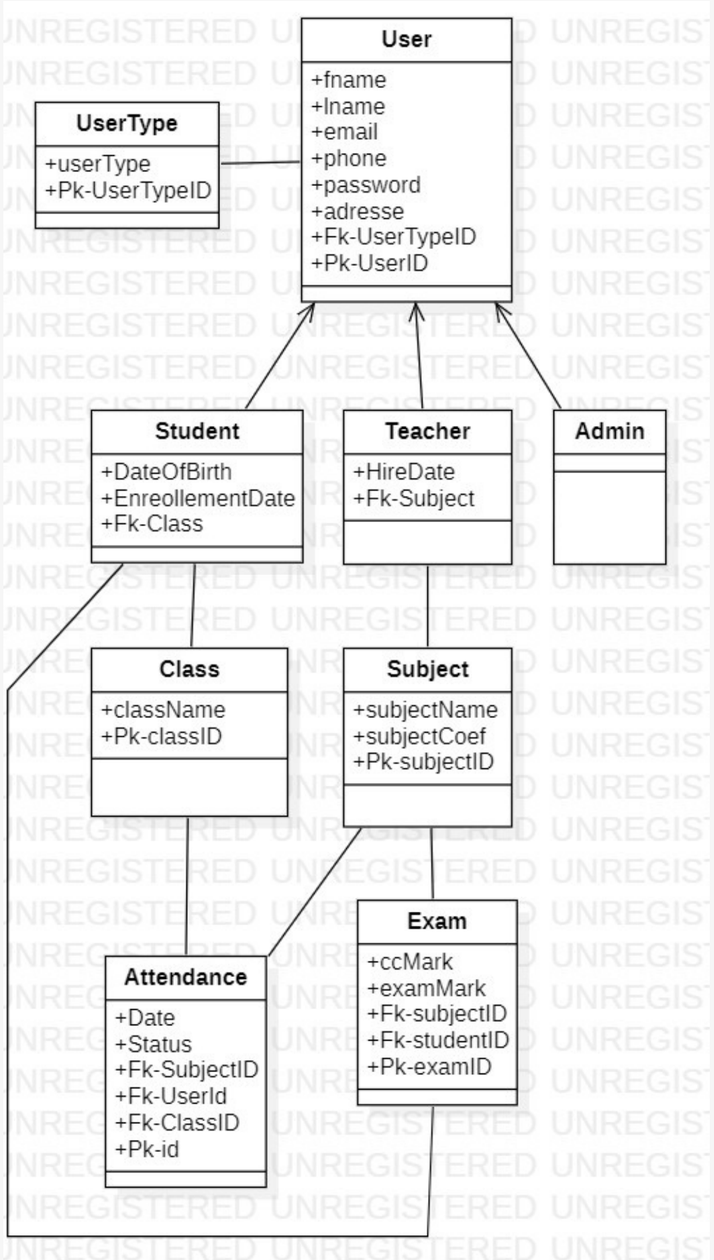
Star UML

II

Class Diagram

II

Class Diagram



Queries

- I created a model for every user to have just one type either a Student, a teacher, or an admin since in OOP you cannot create an instance of something that is more than one sub-class at a time (pick one or the other)

- Create a table of user type

The query :

- create table UserType (UserTypeID int primary key, UserType varchar(10))

Insert the values of userTypes :

- insert into UserType
  select 1, 'student' union all
  select 2, 'teacher' unions all
  select 3, 'admin'

- Set up a foreign key constraint on the combination of UserID/UserTypeID.
- To handle this, we simply add an additional unique constraint to the Users table, covering both UserID and UserTypeID:

The queries :

- create table users

(UserID int primary key,
UserTypeID int references UserType(UserTypeID),
constraint Users_AltPK unique (UserID, UserTypeID))

- create table Students

(UserID int primary key,
UserTypeID as 1 persisted, -- student
foreign key (UserID, UserTypeID) references Users(UserID, UserTypeID))

- create table Teachers

(UserID int primary key,
UserTypeID as 2 persisted, -- teacher
foreign key (UserID, UserTypeID) references Users(UserID, UserTypeID))

- create table Admin

(UserID int primary key,
UserTypeID as 3 persisted, -- admin
foreign key (UserID, UserTypeID) references Users(UserID, UserTypeID))

IV

ITS'DEMO

Conclusion

Thank you for your Attention