

**This assignment is an individual assignment, collaboration is prohibited.**

Ranken has an old system that we use to refer students to the Student Success Center (SSC). Attached is a paper form of that system. Please design a database to fulfil the following user stories.

### Submitting Referrals

- ☐ As an instructor, I need to submit referrals, so that students can get help from the SSC.
- ☐ As an instructor, I need to be able to select my current course from a dropdown to avoid inaccurate data.
- ☐ As an instructor, I need to be able to select my current students from a dropdown to avoid inaccurate data. However this dropdown should only include current students to avoid the list being too long.

### Meetings with a counselor

- ☐ As a counselor, I need to view all unresolved referrals, so that I can meet with students where needed.
- ☐ As a counselor, I need to record meetings that I have had with students, so that I know which students I have met with, when I met with them, and any outcomes of the meeting.
- ☐ As a counselor, I need to view all of the referrals for a given student, to look for trends.
- ☐ As a counselor, I need to view all meetings for a given student, to know when I last met with them and what the outcome was.

### Email Notifications

- ☐ As a counselor, I need to get an email when a new referral is submitted, so that I can meet with students in a timely manner.
- ☐ As an instructor, I need to get an email when I submit a referral to confirm that it was successfully submitted and to keep a record of the referral.
- ☐ As an instructor, I need to get an email after a meeting with my students, so that I know about any agreed upon outcomes.

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Create an **Entity Relationship Diagram (ERD)** of your database design either on paper or digitally. Include tables for **[Courses]**, **[Students]**, **[CourseStudents]**, and **[Referrals]**.

\_\_\_\_\_ / 25 pts

- ☐ *Diagrams created on lucidchart.com will not be accepted.*
- ☐ All data described above and on the referral form is captured in the database
- ☐ [Courses] table created with appropriate columns and data types
- ☐ [Students] table created with appropriate columns and data types
- ☐ [CourseStudents] table created with appropriate columns and data types
- ☐ [Referrals] table created with appropriate columns and data types
- ☐ Relationships between tables are clearly and correctly illustrated using crow's foot notation

Write a schema definition for each table in SQL. Submit all of your schema definitions as a single script to git under **labs/UNIT\_03\_LAB/AcademicReferral/Schema.sql**

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- ☐ All data described above is captured in the database
- ☐ All fields that are listed as required above are required in the database
- ☐ All fields that are listed as optional above are optional in the database
- ☐ [Courses] table created with appropriate columns and data types
- ☐ [Students] table created with appropriate columns and data types
- ☐ [CourseStudents] table created with appropriate columns and data types
- ☐ [Referrals] table created with appropriate columns and data types
- ☐ Foreign key created for [CourseStudents] -> [Course]
- ☐ Foreign key created for [CourseStudents] -> [Students]
- ☐ Foreign key created for [Referrals] -> [CourseStudents]

Once you have created the necessary tables above. Write out SQL SELECT statements to answer the following questions. Submit your SQL queries as a single script to git under **labs/UNIT\_03\_LAB/AcademicReferral/Queries.sql**

Label each query with a comment. 5pts each.

1. List course ID and course name for all courses belonging to instructor Paul Smith.
2. List student number and student name for all students in course ID 5.
3. List student number, student name, and referral ID for all unresolved referrals.
4. List referral date, instructor name, semester, major, referral ID for all referrals belonging to student no 123.
5. List meeting date, counselor name, and outcomes for all referrals belonging to student no 123.