

CHECKPOINT1 Assignment

Group Se7ven Members: Luiz Gustavo Fagundes Malpele, Elijah Luckey, Thomas Sawyer, Gunnar Sundberg. Luiz will be responsible for uploading all the assignments on Canvas.

Data Source: The data gathered is representative of the *Database Rehabilitation Program* (A fictional rehabilitation program). The data we have to fill our table is also fictional as it would contain sensitive information such as name, date of birth, and social security number. Since this is the case, we will generate random client information. Our information is available to process immediately and will be placed in our database as soon as we begin implementation.

End-user Questions:

- How much progress has [insert resident name] made towards their graduation? **Validity Check:** Count the number of unique **ClassSessionAttendance** for this person. This number out of 16 is the progress they have made. This uses 'Client / Resident', 'ClassSession', and 'ClassSessionAttendance' tables.
- What is the rate of graduation/successful completion of our program? **Validity Check:** For each person that has an exit date ('NOT NULL' / was a resident), count the number of people that have the status 'graduate' and the ratio of 'HAS exit_date' and 'graduate' will provide a graduation rate.
- What is the average time of completion for each graduate? **Validity Check:** For each graduate, count the number of days between 'entry_date' and 'exit_date'. Divide that over the number of graduates.

Conceptual Design:Data Dictionary:

Client (5 rows): Holds all clients' personal information

Attribute name	Content	Type	Format	Range	Required	PK or FK	FK Referenced Table
id	Client's ID	INTEGER	999999999	9999999999 - 1000000000	Y	PK	
first_name	First name	VARCHAR(30)	Xxxxxx xxxxxx		Y		
middle_name	Middle name	VARCHAR(30)	Xxxxxx xxxxxx				

last_name	Last name	VARCHAR(30)	Xxxxxx xxxxxx		Y		
date_of_birth	Date of birth	DATE	MM-DD-YYYY		Y		
gender	Gender	CHAR(1)	X		Y		
social_security_number	social security number	INTEGER(4)	9999-0000		Y		
client_phase	Current client's status (applicant, resident, graduate or ejected)	CATEGORICAL			Y		

Contact (5 rows): Holds clients' contact information and a third-party emergency contact.

Attribute name	Contents	Type	Format	Range	Required	PK or FK	FK Referenced Table
client_id (FK)	Client's ID	INTEGER	999999999	999999999-100000000	Y	FK	Client
phone_num	Phone number	INTEGER(10)	(999)9999-999	(000)0000-000 - (999)9999-999	Y		
emergency_num	Emergency contact's phone number	INTEGER(10)	(999)9999-999	(000)0000-000 - (999)9999-999	Y		
email	Email	VARCHAR(40)	xxxxxxx@xxx.xxx		Y		
contact_name	Emergency contact's name	VARCHAR(30)	XXXXXXXXXX XXXXXXXXXX		Y		

Residency (5 rows (?)): Relates the client to the operations in the organization (mentor_name and room_number) and stores the entry and exit dates of the rehabilitation program.

Attribute Name	Contents	Type	Format	Range	Required	PK or FK	FK referenced Table
client_id (FK)	Client's ID	INTEGER (10)	999999999	999999999-1000000000	Y	FK	Client
room_number	Mentor's room number	INTEGER (4)	9999	9999-1000	Y		
mentor_name	Mentor's name	VARCHAR (30)	XXXXXXXXXXXXXX		Y		
entry_date	When the client joined the program	DATE	MM-DD-YYYY		Y		
exit_date	When the client exited the program	DATE	MM-DD-YYYY		Y		

ClassSessionAttendance (80 rows): Relates a resident to a class session, each resident is required to attend 16 sessions.

Attribute Name	Contents	Type	Format	Range	Required	PK or FK	FK Referenced Table
class_session_id (FK)	Class' session ID	INTEGER	XXX999999		Y	FK	ClassSession
client_id (FK)	Client's ID		999999999	999999999-1000000000	Y	FK	Client

ClassSession (15 rows): Holds all available session's information.

Attribute Name	Contents	Type	Format	Range	Required	PK or FK	FK Reference d Table
class_session_id	Class' session ID	Serial	XXX99999		Y	PK	
mentor_name	Mentor teaching the	VARCHAR (30)	XXXXXXXXXXXXXX		Y		

	current session.						
capacity	Capacity of clients attending a class session	INT(2)	99	99-1	Y		
room_id	Room's number	INT(4)	9999	9999-1000	Y		
date_of_session	Day of the week of the session	DATE	MM-DD-YYYY		Y		
start_time	Session's starting time	TIME	HH:MM		Y		
end_time	Session's end time	TIME	HH:MM		Y		

Comentado [GU1]: Should this range include 0?
- Elijah

ER Diagram:

