

Project Code Name: Jellyfish

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### Database Design Outline / Schema / ER

- providers
  - Primary Key - provider\_id int(11) NOT NULL AUTO\_INCREMENT
  - fname varchar(255) NOT NULL
  - lname varchar(255) NOT NULL
  - credentials varchar(255) NOT NULL
  - This entity represents the therapy provider. They have a M:M relationship via appointments with clients.
- clients
  - Primary Key - client\_id int (11) NOT NULL AUTO\_INCREMENT
  - fname varchar(255) NOT NULL
  - lname varchar(255) NOT NULL
  - insurance\_num int(20) NOT NULL
  - This entity represents the children receiving the therapy. They have a 1:M relationship with their skills and problem\_behaviors.
  - They have a M:M relationship via appointments with providers.
- appointments
  - Primary Key - appointment\_id int (11) NOT NULL AUTO\_INCREMENT
  - date date NOT NULL
  - time time(0) NOT NULL
  - end\_time time time(0) NOT NULL
  - These are the appointments that link the providers and clients via M:1 relationships with each; therefore, they use the provider\_id and client\_id foreign keys.
  - Appointments also have a M:M relationship with skills and problem\_behaviors since it is during the appointments that these things are addressed. This is implemented with join tables representing the occurrences of behaviors and skill\_trials during the session.
- problem\_behaviors
  - Primary Key - behavior\_id int (11) NOT NULL AUTO\_INCREMENT
  - name varchar(255) NOT NULL
  - definition varchar(255) NOT NULL
  - Behaviors are typically tracked, if they decrease it is used as evidence of the efficacy of the skill goals. They have a M:M relationship to the appointments via the related data taken by the provider. These data are recorded in the behaviors table. They have a 1:m relationship with behaviors, the occurrences of the problem behavior.
  - These problem\_behaviors are linked to the client that exhibits them, the client\_id is used to do this.
- skills
  - Primary Key - skill\_id int(11) NOT NULL AUTO\_INCREMENT
  - name varchar(255) NOT NULL
  - definition varchar(255) NOT NULL
  - pass\_conditon varchar(255) NOT NULL – There is always a predefined condition that the goal will be considered passed such as '80% successful trials for 3 consecutive sessions'
  - Skill goals are assigned to each child and tracked each appointment to monitor progress. They have a M:M relationship to the appointments via the data kept in the skill\_trials table. The skills have a 1:M relationship to the skill\_trials.
  - These skills are linked to the client that is working on them, the client\_id is used to do this as a foreign key.

- behaviors
  - Primary Key - behavior\_event\_id int(11) NOT NULL AUTO INCREMENT
  - time time(0) - some behaviors are monitored by how long they last
  - end\_time time time(0)
  - occurrences int – some behaviors are monitored by how many times they occur in a given period of time such as
  - This represents the actual data entries performed by providers.
  - behaviors have a M:1 relationship with problem\_behaviors and appointments and reference behavior\_id and appointment\_id as foreign keys.
- skill\_trials
  - Primary Key - skill\_trial\_id int(11) NOT NULL AUTO INCREMENT
  - prompt varchar(20) - refusal, full physical, partial physical, model, direct\_verbal, indirect\_verbal, gesture, independent – each trial is often marked for how much support was provided to complete a task successfully.
  - passed bool – pass fail data is sometimes taken in leu of monitoring support level
  - This represents the actual data entries performed by providers.
  - Skill\_trials have a M:1 relationship with skills and appointments and reference skill\_id and appointment\_id as foreign keys.



