

DATABASE TABLES SCHEMA

- NOTES:
- The naming convention is camelCase.
  - All purple variables are countable (substitutes for arrays); front-end should expect functions to retrieve count and actual list.
  - Blue boxes are notes for the front-end team; red for the back-end team.
  - The first field is the unique identifier for that item.
  - Dotted arrows are the same variable for one instance of the item.

minimum 1,  
maximum 2,  
enforced in front-end

generated by front-end  
operations before  
sending to database

APPLICATIONS TABLE

<b>username</b> (String) (unique)	<b>firstName</b> (String)	<b>lastName</b> (String)	<b>year</b> (String) (1 of 4 options)	<b>gpa</b> (float)	<b>grade320</b> (char)	<b>reference</b> (String) (‘firstname lastname, email’)	<b>attachment</b> (String) (S3 link)
---	------------------------------	-----------------------------	---	-----------------------	---------------------------	--	--

STUDENTS TABLE

<b>username</b> (String) (unique)	<b>conflict</b> (int = section ID)	<b>ranking</b> (int = 1, 2, ...)	<b>sectionRanked</b> (int = section ID)	<b>matched</b> (int = section ID)
---	---------------------------------------	-------------------------------------	--	--------------------------------------

So, if a student prefers section 7  
and then section 8, the pairings  
would be (1, 7), (2, 8).

Send out notification when this  
value changes from -1 to  
section ID, since the student  
is now matched.

PROFESSORS TABLE

<b>username</b> (String) (unique)	<b>section</b> (int = section ID)	<b>ranking</b> (int = 1, 2, ...)	<b>appRanked</b> (String = student’s username)
---	--------------------------------------	-------------------------------------	--

USERS TABLE

<b>username</b> (String) (unique)	<b>password</b> (String)	<b>type</b> (Boolean; 0 = student, 1 = professor)	<b>firstName</b> (String)	<b>lastName</b> (String)
---	-----------------------------	--	------------------------------	-----------------------------

Name will be asked for  
during registration. This  
name can be retrieved  
from here to greet user.

MATCHINGS TABLE

<b>section</b> (int = section ID)	<b>username</b> (String = student’s username)
--------------------------------------	--

SECTIONS TABLE

<b>id</b> (integer) (unique, taken from schedule)	<b>day</b> (String)	<b>time</b> (String)	<b>username</b> (String = Professor’s username)	<b>applicant</b> (String = student’s username)	<b>capacity</b> (int)	<b>numEnrolled</b> (int)
--	------------------------	-------------------------	---	--	--------------------------	-----------------------------

Retrieve capacity and  
numEnrolled from here.

Used to be String = Professor’s  
name. Simplifies back-end  
operations. Front-end will have  
function to retrieve instructor’s  
name when displaying  
section info.

Every student who has  
submitted application  
choosing this section.  
Update with every  
submission.

Update numEnrolled  
as the matching  
algorithm progresses.