Answer sheet for the SQL Assignment handed to us by Tal Bar:

What kind of information is stored in a table, in your opinion and why:

The information I believe they are likely to have stored in a table is all the information pertaining to the words of the crossword puzzle, since each word has the same characteristics, so a table is a good way to represent the many instances of a 'crossword'.

These fields would be:

1. The ID (number) of the word
2. The hint to provide
3. The word itself
4. The length of the word
5. Solved yet? (true/false)

You may have noticed that I omitted one critical attribute of the words- their alignment. The reason for this is because I believe there are not one, but two tables storing the words- one table with all the horizontal words, and another with all the vertical ones. My reasoning behind this deduction is that each of the other characteristics are unique to every word- the word's alignment, on the other hand, is limited to two options- across or down. Therefore, having a whole column dedicated to only those choices seemed like a waste of space. Now, you may claim that I am hypocrite- since, after all, the fifth field I proposed also has only two options. However, I would dispute that outlandish accusation by bringing up a key point- if the guessed words and not-yet-guessed were stored in separate tables, it would require the program to move the words over every single time the guesser is right- and that would just leave us with some extra, totally unnecessary work.

What kind of information is not stored in a table in your opinion and why:

Tables are useful for when there are many instances of the same object. Therefore, things like the player's score (which is a single variable) or the matrix of the crossword (which, again, is just a single object) should not be stored in tables.

Across:

ID	Hint	Word	Length	Guessed
21	Flaring star	Nova	4	1

Down:

ID	Hint	Word	Length	Guessed
16	Tusk material	Ivory	5	1

These are the commands I used in order to create these tables using sqlite:

```
CREATE TABLE Across (ID INT, Hint TEXT, Word TEXT, Length INT, Guessed BOOL);
CREATE TABLE Down (ID INT, Hint TEXT, Word TEXT, Length INT, Guessed BOOL);
INSERT INTO Down VALUES(16, "Tusk material", "Ivory", 5, TRUE);
INSERT INTO Across VALUES(21, "Flaring star", "Nova", 4, TRUE);
SELECT * FROM Down;
SELECT * FROM Across;
```