Goals:
Functions for data types Date and Datetime
NULL comparison and relevant functions
JOIN queries

0. Review In-Class Code

1. Assigned Reading and research
Read about NULL
● Read about the `IS NULL` *comparison* operator
https://www.techonthenet.com/mysql/is_null.php
● Read about `IFNULL()` function
https://dev.mysql.com/doc/refman/8.0/en/control-flow-functions.html#function_ifnull

Read about Date Scalar Functions
● Reference as needed:
https://dev.mysql.com/doc/refman/5.7/en/date-and-time-types.html
● Read about the CAST scalar function.
https://www.w3schools.com/sql/func_mysql_cast.asp
● Read about `Date_Add()`
https://www.w3schools.com/sql/func_mysql_date_add.asp
● Read about `NOW()` and `STR_TO_DATE()` (understand the basics of changing strings to dates)
https://dev.mysql.com/doc/refman/5.5/en/date-and-time-functions.html#function_now
https://dev.mysql.com/doc/refman/5.5/en/date-and-time-functions.html#function_str-to-date

Deliverables:
1: If you need to compare if a DATE and a DATETIME are the same day, which function will enable you to do this? Write some code to confirm your assumptions.
> *Hint - start here, and make this test return true by using a <u>function</u> in the correct place:*
> ```
> select '2018-10-11' = now()
> -- put today's actual date in the string
> ```

2: Write a query to show in the result set, a value that is 1 month before the student's birthday. Send your code and the resultset.
> **Note:** Some Birthdays can be NULL - *Please* include the IFNULL function and substitute the Now() value if the birthday is NULL.
> **Note:** it's acceptable to add a new record to the Student table so that you are sure to have a NULL birthdate to practice with - remember, even if no NULL is present at this time, there could be a null in the future.

3: Describe the difference between "IS NULL" and "IFNULL".

4: Show the classes that have no students signed up. Send your code and the result set. (Hint: Write a 2 table "outer" JOIN query and use a WHERE clause predicate to only return those classes that have no students signed up for the classes.)

5: Write a query to show ALL students, and where possible show when they signed up for classes. Send your code and the result set (Hint: Write a 2 table "outer" JOIN query.)

6. Describe the difference between the `LEFT`/`RIGHT` and [`INNER`] JOINS.