Goals:

        Creating Tables.
        Inserting data to tables.
        Reviewing data after you've created it.
        Learning about some data types.
Points possible are shown in Blackboard assignment.

1. Create a table for holding Student data. Follow this technical specification:
Table Name: `Student`
Columns
- `ID int`
    - ID will be an auto_increment field
    - ID will be the primarykey
- `FirstName varchar(30)` (make this a required field by using the NOT NULL constraint),
- `LastName varchar(50)` (make this a required field by using the NOT NULL constraint)
- `BirthDate date`

<mark>Deliverable 1:</mark> Send your Create Table code.

2. Create INSERT instructions to add data to the `Student` (10 records) and `Class` tables (3 records) use the Class table that you created in homework 1. Some data elements you will need to invent, however please <u>include these details shown below</u> (these specifications will help us with consistency and grading in future homework assignments):
<u>Classes with codes and maximum students:</u>
- COMM113 - 5 students max, ENG101 - 4 students max, MA030 -5 students max

<u>Students with First Names:</u>
- Ross, Phoebe, Hope, Perry, Hermann, Lily, Endora, Darwin, Thatcher, Sage

<mark>Deliverable 2:</mark> Send your INSERT code.

3. Create a table for holding Students that are taking a Class. Follow this technical specification: (we will add data to this table in future homeworks).
Table Name: `ClassStudent`
Columns
- `ID int`
    - ID will be an auto_increment field and ID will be the primarykey
- `ClassID INT` (make this a required field by using the NOT NULL constraint)
- `StudentID INT` (make this a required field by using the NOT NULL constraint)

Deliverable 3: Send your Create Table code.

4. Run this query and copy the result window (use right click in the results and choose the copy with headers option - be sure to copy the <u>data </u>results, not the responses.) Paste the results into your homework query.
```
SELECT * FROM Class;
```
<mark>Deliverable 4:</mark> Send your result set. (Copy content from the result window)

5. Run this query
```
SELECT * FROM Student;
```
<mark>Deliverable 5:</mark> Send your result set. (Copy content from the result window)

6. Assigned Reading and research
- Read about 2 similar data types, specifically , understand the differences between VARCHAR and CHAR,

https://stackoverflow.com/questions/1885630/whats-the-difference-between-varchar-and-char/1886367#1886367

- Read about 2 similar data types, specifically , understand the differences between `Datetime` and `Date`. Also read ahead about the CAST scalar function.
  https://dev.mysql.com/doc/refman/5.7/en/datetime.html
  https://dev.mysql.com/doc/refman/8.0/en/cast-functions.html#function_cast

Deliverable 6: **Answer the following questions**
  - **Question 1:** Based on the SELECT statements you've seen, what might * (asterisk, or star) represent in the SELECT clause of a query?
  - **Question 2:** What if you only want to see the FirstName column of the Student Table, how would the query change? Write a test query to try it out and send the code <u>with </u>your answer.
  - **Question 3:** What is the difference between a NOT NULL constraint and a DEFAULT constraint?

Now something Just for fun: https://xkcd.com/1683/