Concept

I would like to develop an application that allows students to enter
their class schedule into the program and have it generate a table
showing the times each day they have class.
It would be
great if this could be a web application.

1. High-Level Requirements

Build a web interface that allows students to enter their schedule,
the program then generate a time table that reflect the student's daily schedule.

2. Technical Specifications

Web Interface (4 hours)

There needs to be fields where students enter

1. *what class this is,*
2. *Start time and end time for this class,*
3. *days of the week the class happens.*

There should initially be a set number of fields, and if the student
wants more, there needs to be a button that asks
"add more classes" which when clicked display one more fields.
There also needs to be a button "finished" that when clicked, send
the entered data to the server and displays the generated table of schedule.

Schedule Generation (4 hours)

Store the input into a text file, parse it into a data structure in
the backend program, then use some api to convert the data to a user
friendly schedule chart.

3. Detailed Design

1. hardware and software requirement

1. front-end: **any device** that **supports a modern browser**
2. back-end: powerful **server** that runs **java**

2. first interface

enter your classes:

class	start	end	Which Day?

more classes?

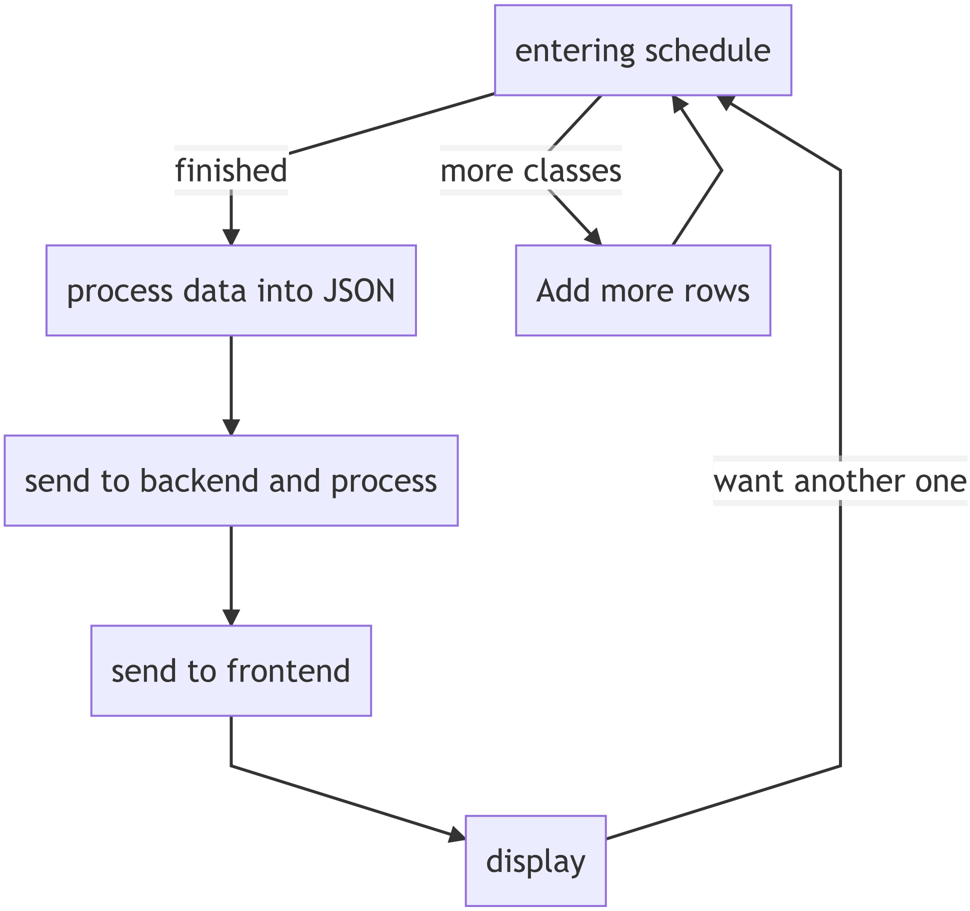
finished?

3. display of schedule

time	Monday	Tuesday	......	Sunday
8am				
......				
8pm				

another one?

4.flow chart



4. Testing

1. **White Box Test**
   click finished without entering anything,
   the user should be prompted to enter something
2. **White Box Test**
   enter classes with conflicted time. the user should be prompted of this issue.
3. **White Box Test**
   enter a class with missing field, the user should be prompted with this error.
4. **Stress testing**
   Sends 100000000 request to the backend server and see how it handles.
5. **Stress testing**
   submit a schedule with 10000000 classes with no overlapping times and missing fields

6. **white Box testing**
   enter 7 classes that are formatted correctly
7. **white box testing**
   enter classes with characters from languages other than english,
   should have no issue.

5. Deployment

- Step 1 - **push the application to a live server**
- Step 2 - **ensure all of the data was migrated**
  to the live server from the existing system
  To do this, run the sha application and compare
  the hash of each file
- Step 3 – **perform a full test of the application**
- Step 4 - **test with real person**
- Step 5 - **Go live and provide access to public**