**﻿ask-35290**

[@AskBCS Learning Assistant](https://msudetdatapt0-uc48002.slack.com/team/U017F7Q3U0M) created this private channel today. This is the very beginning of the **﻿ask-35290** channel.

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**Today**

[](https://app.slack.com/team/U017F7Q3U0M)

[**AskBCS Learning Assistant**](https://app.slack.com/team/U017F7Q3U0M)**APP**  [10:39 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608133142000200)  
joined ask-35290 along with Steve Freeland.

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[**AskBCS Learning Assistant**](https://app.slack.com/team/U017F7Q3U0M)**APP**  [10:39 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608133142000500)

**ASK-35290** | Python Flask | Assignment  
*Submitted****Dec 16 10:38 AM***

Hello! I am underway in my Project 2 work. I have created a SQL database/table in PostGres. Please know the data supporting this table came from a .csv file.  
  
The next step, and where I am requesting assistance please, is in the scope of creating an API from the database described above (data ultimately from the aforementioned .csv file).  
  
Also and if it's not too much trouble, I would really appreciate this conversation being conducted via a zoom call. Much easier to communicate that way!  
  
Hopefully this is clear. Many thanks in advance for your help.  
  
Steve Freeland

**Thank you for submitting your question!**  
We are currently looking for a Learning Assistant to help you. If you have any additional information that would help us answer your question - such as images, screenshots, or code snippets - please add them below.



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [10:43 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608133396001000)

Here is a high-level description of my project:

image.png

[10:45](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608133503001700)

Again, the sql table has already been created and I am trying to create the API from the source .csv / database



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [10:55 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134107002000)

Just touching base to see if anyone has seen this request... Thank you

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [10:59 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134347002100)  
Hi there Steve, my name is Alex. How are you doing today?



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [10:59 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134374002400)

Hi Alex! I'm doing well and hope you are too

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[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:00 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134427002500)  
So this is a personal project, not one of the module challenges, right?



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:01 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134460003100)

I think so. It is Project #2 for the Data Visualization Boot Camp

[11:01](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134500003500)

The suggestion to create the API from the source data came from my instructor and TA, fyi

[11:03](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134621004100)

I like the idea and have done some research but am not sure how to start / accomplish this task. Really appreciate your support!

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:05 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134722004200)  
Gotcha. Well just to be upfront here, we generally try to focus on curriculum related things, and I don’t think we use Flask as an API in the course. Also our goal is to keep support to 15 minutes and not use Zoom. So it sounds like your question is best fitted for a TA session, as they can sit down with you for longer time and really dig into your project. However, I do not want to send you away empty-handed . So if you could send me your github repo for this, I will take a look and see if I can point you in the right direction on building this flask API.



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:06 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134786004600)

Great, thank you! Here is the link to my repo: <https://github.com/Steve-hub49/Auto-Insurance-Project>

GitHub**GitHub**

[**Steve-hub49/Auto-Insurance-Project**](https://github.com/Steve-hub49/Auto-Insurance-Project)

Contribute to Steve-hub49/Auto-Insurance-Project development by creating an account on GitHub.

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:09 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608134957005200)  
Are you going to use a JS framework for the front end like React or Angular or something?



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:11 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608135062006600)

Yes, I will use a new JS framework for this assignment (TBD - either DataTables (especially if I have a grid of data), jQuery, or charts.jsWe were advised not to use React or Angular for this project, in the interest of time and relative simplicity (less involved)

[11:11](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608135092006900)

So the short answer is yes!

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:15 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608135357007000)  
…writing a novel, give me a second



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:16 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608135389007500)

Absolutely no worries, again I really appreciate your support. Trying to wrap this up as it is due this Saturday.

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:26 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608135972007600)  
Okay well I totally get the advise to not use React or Angular. I was a bit concerned with that idea because it is a lot of work, especially if you’re a bit new to them. On the flip side of things, DataTables, jQuery and chart.js are all libraries, not frameworks-- I’ll try to explain the difference.React for example is an application framework, and it would require it’s own whole file structure, and would not directly communicate with your backend without an API. Flask is capable of building both the front and backend, so if you used React, it would essentially replace the Flask front end functionality. The data from the Flask backend to the React front end would be transferred via API as the two would not naturally communicate with eachother otherwise.Datatables, jQuery, and Chart.js are not frameworks, they are libraries. Libraries don’t require their own file structure, and can run in anything (javascript specific) that imports them. A library that you’re probably familiar with now is D3. D3 can be imported and used in any JS file and doesn’t need any special API to communicate with the data.All of this to say I’m not too sure where your TA and Instructor are coming from by recommending you build an API as it’s not needed for those libraries. I most likely don’t have all the information, as I’m sure they know what they’re talking about, but it seems like an unnecessary step. If I were you, I’d use the mission to mars project as reference to set up with a flask app, and get the data you need from python to an html file. Then in the html file you can import a javascript file there, and then in the imported javascript file, you can use whatever library you like. For including the JS and using libraries, you can use the D3 project for reference.If set up this way you should not need to build an API, and your project will essentially be a combination of things you’ve done before, which would probably be easier than something brand new, like turning flask into an API.With all that being said, I told you I’d help you move forward and I don’t mean to derail the route you were going to take, so I looked around and found a nice clean guide on turning flask into an API: <https://nordicapis.com/how-to-create-an-api-from-a-dataset-using-python-and-flask/>You’ll have to make a lot of changes, but I think following that guide will explain it better than I could alone. (edited)

Nordic APIs**Nordic APIs**

[**How To Create An API From A Dataset Using Python and Flask | Nordic APIs |**](https://nordicapis.com/how-to-create-an-api-from-a-dataset-using-python-and-flask/)

In this tutorial, we create a basic web-based API using Python, Flask and SQLite.

May 27th (40 kB)

<https://nordicapis.com/wp-content/uploads/How-To-Create-An-API-From-A-Dataset-Using-Python-and-Flask.png>

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:31 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136272009600)  
I don’t want to make building an API seem like a really hard task, because it’s not, but I just don’t see how it’s necessary. If you can get in a quick chat with your TA, I would do that and try to bring this up-- maybe even show him my message.Regardless, with or without an API is definitely possible. Good luck in whatever you choose.



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:32 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136323010600)

Thanks for the tips Alex! All good but regarding the D3 reference our instructions are to use a new js tool, one we haven't used before. So with that said, do you have a recommendation for which of the following to use... DataTables (especially if I have a grid of data), jQuery, or charts.js? I appreciate your thoughts on this as well.And just to be clear since I have to use one of these js tools, can I still use Nordic APIs? I realize this is different to what you recommend, hopefully these last requests make sense. Thanks again.

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:32 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136362010700)  
How many new tools do you need to use?



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:33 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136429011500)

Just one js tool that we haven't used before... Here are the instructions to help clarify:

image.png

[11:35](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136556013100)

fyi, my approach is the first bullet below item #2 (a custom creative D3.js project (i.e., a nonstandard graph or chart)... Further below you will see a reference to the need to include one JS library that we did not cover

[11:36](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136588013500)

I know we have passed 15 minutes, appreciate your flexibility here

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:40 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136821013600)  
oh it *must* include a python flask API

[11:40](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136827013700)

oh man

[11:40](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136832013800)

well scratch a lot of what I just said

[11:41](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136917014200)

So I’d build out the mission to mars style flask app. Use D3, and then use chart.js to actually make the charts.



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:42 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136922014400)

That’s okay, no worries

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[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:42 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136937014500)  
That’s seems fairly straight forward and I think satisfies the requirements.

[11:42](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136942014600)

Does that make sense?



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:43 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608136998015400)

Great! Yes I truly appreciate the advice. Having said that - and hopefully my last question for you today - can you please provide any good reference material to support me in this effort?

[11:43](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137012015600)

In addition to the homework reference above please

[11:45](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137104016400)

And one more question is I’m away from my laptop right now, can you please advise as to where I would find the flask details in the homework… Is it in the HTML script or elsewhere?

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:46 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137207016500)  
Well I think the homework modules would be the best material. I think flask was introduced in module 9 lesson 4. The best review will probably be 9.4.1 - 9.5.6. Otherwise googling “How to build simple flask app” or something along those lines can be really helpful. I found this off a quick search (<http://jonathansoma.com/tutorials/webapps/intro-to-flask/>) and it looks pretty straight forward.



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:48 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137326017400)

And this will work when building the api from a postgres database/table source (which ultimately came from a .csv file)? Just asking now so I won't have to reach out again later, thanks

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:48 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137337017500)  
After your flask app is set up, I think any instance of using D3 in your homework will be the next best reference. And once you get to needing to use chart.js, the documentation is probably all you need. I’ve personally used chart.js a few times, and it’s pretty simple but also very customizable which can sometimes be a bit confusing. But once you get the hang of it its super easy and powerful.



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:49 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137393018400)

Sounds great. If you haven't seem my last question just above, please give it a peek before we sign off. You've done a great job today! Very nice and helpful.

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:51 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137467019300)  
So you definitely can use a postgres db/table. And that’s probably best practice for any web app. However, if you are just displaying data, and the data will never change, then you don’t actually need a database. You could build a csv of the data you need, and import it with D3, and never use a database at all.

[11:51](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137493019600)

oop, just kidding, I just read the instructions again.

[11:51](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137496019700)

You need a database.

[11:51](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137507019900)

So yes, csv -> postgres -> flask



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:52 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137529020400)

Sounds reasonable but I have to follow the directions... oh you just commented to that effect!

[11:52](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137568021100)

Great! Last question, I think I can promise that, where do I find the modules referenced above? Are these different than the google slides shared in each class session? Thanks again

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[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:53 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137602021300)  
Do you have an account on bootcampspot?



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:53 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137609021600)

Yes

[11:54](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137641021800)

I am logged in

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

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You should be able to go to the modules tab and see information on each module/lesson.



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [11:55 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137710022400)

Hmm, here's what I see on the home page... Probably just looking in the wrong place but i don't see a Modules tab?

[11:55](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137715022500)

image.png

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [11:59 AM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608137957022700)  
Oh. That’s not quite like mine. My apologies I’m not too familiar with your class structure. It’s possible that the slides are your best resource here. (Maybe a question for a TA sometime too?)



[**Steve Freeland**](https://app.slack.com/team/U017TAX7PHQ)  [12:00 PM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608138001023500)

Okay, very good. Alex, you have done a great job today! Tremendous support and very helpful. I will give you high marks in the post-session survey. Thanks again and enjoy the rest of your week.

[:bust_in_silhouette:](https://app.slack.com/services/B0179SKT9JS)

[**lexsp25**](https://app.slack.com/services/B0179SKT9JS)**APP**  [12:00 PM](https://msudetdatapt0-uc48002.slack.com/archives/G01GYR0NXRT/p1608138042023600)  
Thanks. I got a bit invested haha. Good luck with your project Steve!

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Your question has been marked as resolved and is now closed.



