

Take-home resource document

You should share a Github repository (or a similar resource) containing your implementation of this take-home project within one week of the project start date. **Please only spend 3-5 hours on this assignment.**

If any aspect of the project is unclear, you are welcome to ask questions. However, for this assignment, our software engineers will only be able to answer as though they were a potential (non-software-engineer) user of this tool. For example, clarifying questions about how the tool would be used, non-technical constraints, and priorities are all fair game.

The Assignment

Consider the following hypothetical:

We have a file of 'solar events' - developments in solar technology, when they happened, and some helpful identifying tags for the type of event in question.

We want to answer the question: **Does an event in the solar industry trigger edits to relevant Wikipedia pages?** We want to build a tool to allow us to plot the data we have about solar events against data that we can retrieve from Wikipedia's API.

Please include a brief writeup about your approach and solution in the project [README.md](#) (or elsewhere in the submission if needed).

Relevant Wikipedia pages

Perovskite solar cell: https://en.wikipedia.org/wiki/Perovskite_solar_cell

Solar cell: https://en.wikipedia.org/wiki/Solar_cell

Semiconductors: <https://en.wikipedia.org/wiki/Semiconductor>

If there are other pages that you think could be relevant, feel free to add more!

What's in the box

The starter code we've provided is a basic Django project that will allow you to quickly set up a web server and add any database models that may support building the tool described. If you

need to write any frontend code, the example page `random_number` may be helpful to reference. You are welcome to write the frontend with TypeScript (and use the starter transpilation toolchain provided) or JavaScript.

You are welcome to edit the project however you see fit to build our 'solar event' tool.

We've also included the solar events data in the solar events spreadsheet.

Additional resources

For information about Wikipedia's API, and specifically retrieving revision information:

https://www.mediawiki.org/wiki/API:Revisions#Example_1:_Get_revision_data_of_several_pages

If you're new to Django, they have healthy documentation:

<https://docs.djangoproject.com/en/5.0/>

- Especially helpful if you want to add models to the database:
<https://docs.djangoproject.com/en/5.0/intro/tutorial02/>

For plotting data, Plotly can be a good resource: <https://plotly.com/javascript/>. However, you're welcome to use any other libraries you might like.