Python netCDF and xarray

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TETHYS Summer School (Hands-on Session)

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How to retrieve API key for Copernicus Data Store (CDS)

Steps to obtain your API key and endpoint URL

1. Go to: https://cds.climate.copernicus.eu/how-to-api
2. Create a user account, if not already done so – validate via e-mail.
✓ Accept Privacy statements.
3. Go to the link above and log in.
4. Now, after logging in, you will see key and url.
5. Copy the `url` and `key` parameters, they look like[1]:

```
url : https://cds.climate.copernicus.eu/api
key : abcd1234-ef56-7890-gh12-ijklmnopqrst
```

5. Have them ready – you'll need them during hands-on session!

[1] This key is made up, only pattern is realistic

Run the Code, Learn the Science!

Everything you need is in the GitHub repo

- **Open the repository:** via GitHub link or QR code
  - ☛ Start with: `1-start-here.ipynb`
- **Launch in Colab:** use the badge on the README
- **Execute:** run each cell in Google Colab
- No setup needed – it runs entirely in the cloud

/geacomputing/UCY2Sept

Prerequisites		You can run the code		You will need	
coding	basic	Cloud	☛ colab	Copernicus Account	free ✓
scientific data	basic	Locally	(git clone) ✓	Google Account	free ✓

Advanced Launchpad – only if you want to run locally (instead of on the cloud)

Advanced users: Set up the full Python environment locally with Conda

- **1. Clone the repository**

  ```
  git clone https://github.com/geacomputing/UCY2Sept.git
  cd UCY2Sept
  ```

- **2. Create a Conda environment from the .yml file**

  ```
  conda env create -f environment.yml
  conda activate your-env-name
  ```

- **3. Launch Jupyter Notebook or Lab**

  ```
  jupyter notebook
  ```

- You're now running the notebooks on your local machine!