Week #7 Lab involves running, extending and experimenting with a simple multiagent simulation written in Python 3 using the [Mesa framework](https://mesa.readthedocs.io/en/latest/).

**Mesa resources:**

* Overview: <https://mesa.readthedocs.io/en/latest/>
* Introductory tutorial: <https://mesa.readthedocs.io/en/latest/tutorials/intro_tutorial.html>
* Examples: <https://github.com/projectmesa/mesa>

Make sure you install Mesa and its prerequisites.

pip install mesa

Also install matplotlib.

pip install matplotlib

Try the tutorial and see how agents in Mesa interact.

A few days before the lab, you will be shared a brief and a Python notebook

* The brief is here:  **[Covid-Simulation-Brief](https://www.ole.bris.ac.uk/bbcswebdav/pid-8044905-dt-content-rid-46021114_2/xid-46021114_2" \o "Covid Simulation Brief" \t "_blank)** [Covid-Simulation-Brief - Alternative Formats](https://www.ole.bris.ac.uk/webapps/blackboard/content/listContent.jsp?course_id=_257207_1&content_id=_8044803_1&mode=reset" \o "Alternative formats)
* The Python notebook is here:  **[CovidSimulation-Mesa-lab-initial.ipynb](https://www.ole.bris.ac.uk/bbcswebdav/pid-8044905-dt-content-rid-46021116_2/xid-46021116_2" \o "CovidSimulation-Mesa-lab-initial.ipynb" \t "_blank)**

Please read the brief carefully to understand the simulation model, go through the code in the Python notebook, and try to get the code to run on either your machine on local installation of Jupyter notebook or Google Colab. The code should also run on any standard distribution of Python 3.

**Lab brief and tasks:**

When the lab starts you will be shared a second brief:  **[Covid-Simulation Brief and Exercise](https://www.ole.bris.ac.uk/bbcswebdav/pid-8044905-dt-content-rid-46021113_2/xid-46021113_2" \t "_blank)** [Covid-Simulation Brief and Exercise - Alternative Formats](https://www.ole.bris.ac.uk/webapps/blackboard/content/listContent.jsp?course_id=_257207_1&content_id=_8044803_1&mode=reset" \o "Alternative formats)

This second brief provides details of the exercises that you will complete as part of your lab.