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# Programming Distributed Computing Platforms with COMPSs

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Workflows & Distributed Computing Group

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# Python Hands-on (Jupyter-notebook)



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# PyCOMPSs and Jupyter-Notebook in VM

- Start the Virtual Machine

- User: **compss**
- Password: **compss2018**

[/tutorial\\_apps/python/jupyter/tutorial/hands-on](/tutorial_apps/python/jupyter/tutorial/hands-on)

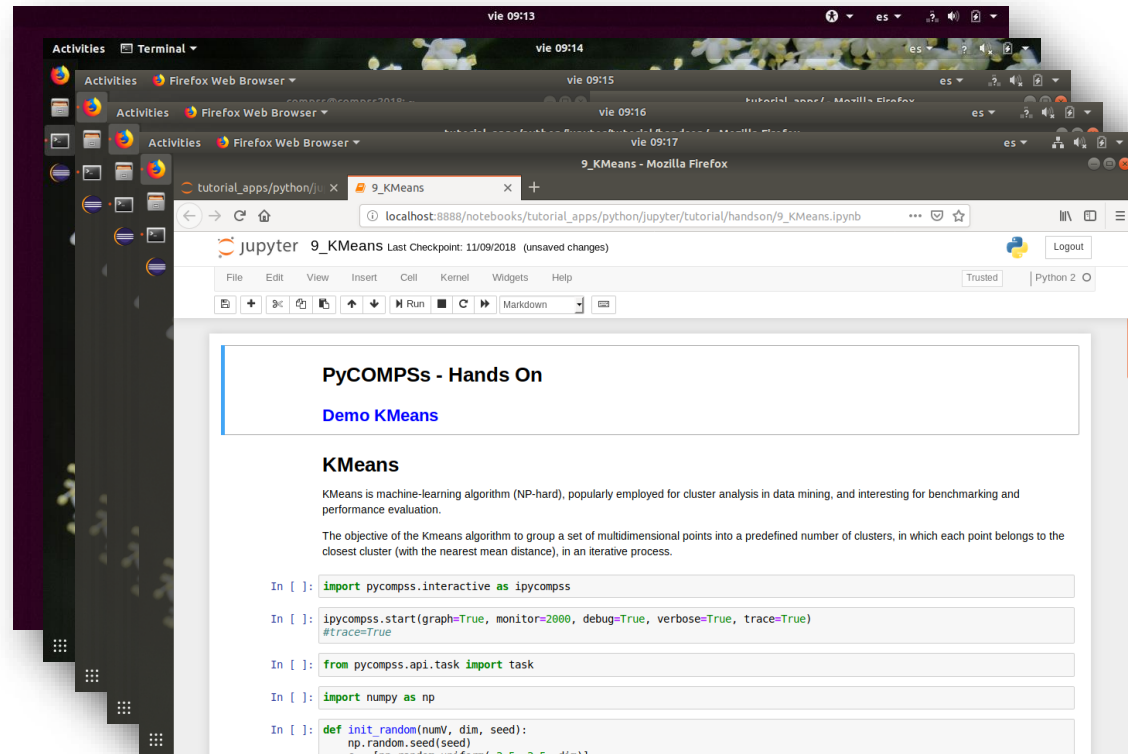
- Open a console

- Start jupyter-notebook

- `$ jupyter-notebook`

- Look for the hands on notebooks:

- SortByKey demo
- Kmeans demo
- Cholesky demo
- Wordcount Exercise



# PyCOMPSs and Jupyter-Notebook in Docker

- Run the compss-tutorial container

```
$ docker run -p 8888:8888 -p 8080:8080 -v  
/path/to/tutorial_apps:/home/tutorial_apps  
-itd compss/compss-tutorial:patc2019 --name mycompss
```

- NOTE: if docker daemon is not running: *sudo service docker start*

- Log into the container

```
$ docker exec -it mycompss /bin/bash
```

- Start jupyter notebook

```
$ jupyter-notebook --no-browser --allow-root --ip=172.17.0.2  
--NotebookApp.token=
```

- Open a web browser with the address: ***localhost:8888***

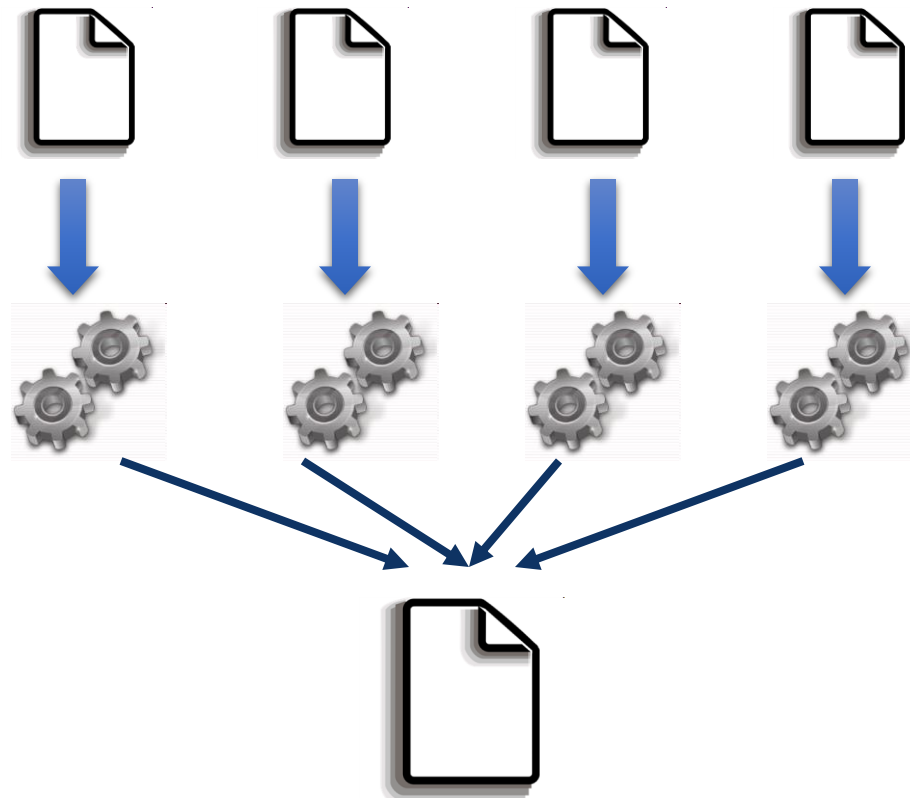
# Python Hands-on demos



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# Wordcount Exercise

- Counting words of a set of documents
- Parallelization
  - Phase 1: Count words of a set of documents
  - Phase 2 : Merge results



# Bring your own code



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EXCELENCIA  
SEVERO  
OCHOA

# THANK YOU!

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