In [ ]:

```
#@title <h1>Google Colaboratory in a nutshell</h1>
```

What is Colaboratory?

The Google Colab environment lets you write, run and share codes within Google Drive. The Google Colab document is an exacutable document in which you can write text and code lines.

Colaboratory allows you to write Python codes in your browser.

- **No configuration or Python packages downloading are needed**
- **Free access to GPU**
- **Easy sharing**

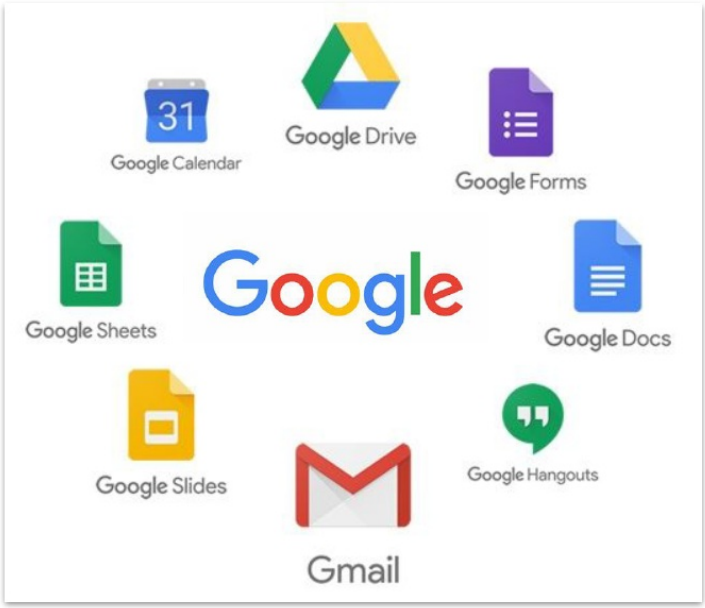
Who can use Colab? **Students, AI reasearchers, Data Scientists, whoever you are. You just need a Google Drive account.**

Google ecosystem

Google grants **15 GB** of cloud storage for free, to each user.

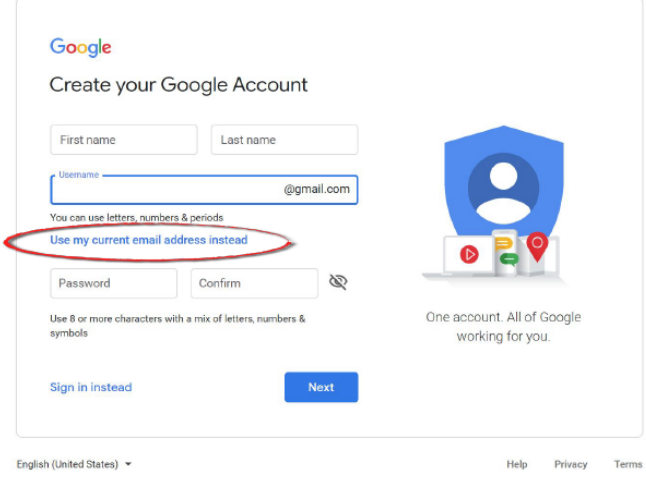
Free tools for smart working:

- Google Drive
- Google Sheets
- Google Slides
- Google Docs
- Google Calendar



Google account

A gmail.com address is not mandatory to create a Google Account: you can associate any existing email address with a the account, hence you can sign in even with your academic mail address.



This is the link to sign up: https://accounts.google.com/signup

Tips on Notebook Document

This is an interactive environment called Colab notebook.

A notebook document is composed of cells, each of which can contain code lines,images, text...

Colab connects you to a cloud-based runtime which means that you can execute Python codes without any required setup on your machine.

This is an example of a code cell:

In [1]:

```
x = ['Welcome', 'to', 'Calcolo' ,'Numerico' ,'!']
print(x)
```

```
['Welcome', 'to', 'Calcolo', 'Numerico', '!']
```

and an example of a text cell:

Welcome to Calcolo Numerico!!

Subsequent code boxes use the same runtime, which means that you may refer to predifined variables. For example:

In [2]:

```
for word in x:
  print(word)
```

```
Welcome
to
Calcolo
Numerico
!
```

Remark: The variable x has been defined two/three cells ago...

References

A book:

https://link.springer.com/chapter/10.1007/978-1-4842-4470-8_7

or just have a look around on Google and YouTube:

https://colab.research.google.com/notebooks/intro.ipynb?hl=en&pli=1#scrollTo=lSrWNr3MuFUS

https://www.youtube.com/watch?v=inN8seMm7UI