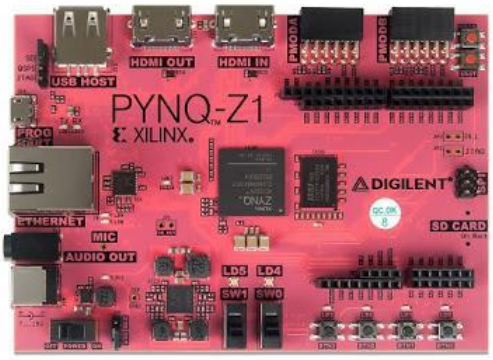
PYNQ-Getting Started:

Agenda

- Configure board
- Connect to the board
- Login in to portal
- Jupyter notebook

Prerequisites for running the labs:

- PYNQ-Z1 board
- PYNQ v2.2 image for the PYNQ-Z1 board
- HDMI cables,ethernet cable,webcam




Download and prepare SD card: http://www.pynq.io/board.html

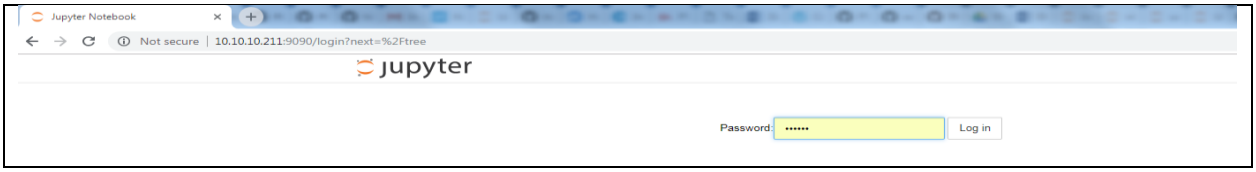
Download PYNQ Image for Board and load image via win32 diskImager.

Connecting to the board:

- Configure board to boot from SD Card
- Set jumper to power
- Insert SD Card
- Connect USB Cable
- Connect ethernet cable
- Power on

Login in to Jupyter portal:

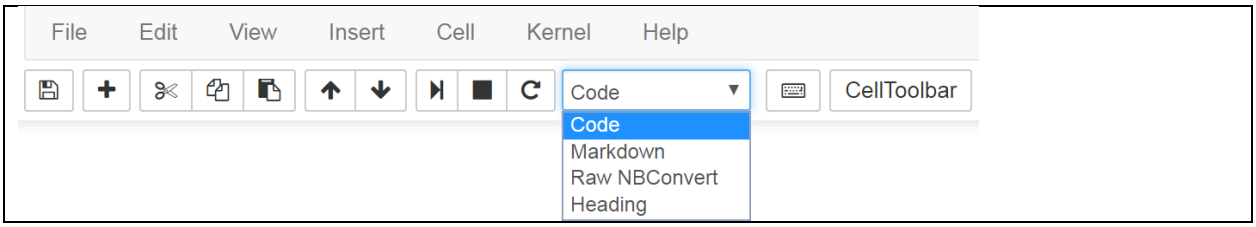
- Open browser
- Browse to: http://10.10.10.###:9090 (IP) or http://pynq:9090
- Password: xilinx



Getting started with Jupyter Notebook

- Jupyter notebook: web application/server
- Create and share documents5(live code, equations, text, results)
- Writing text with markdown and heading
- Writing and running Python scripts

Jupyter notebook cells:



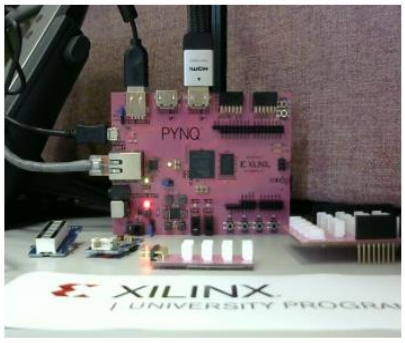
- code: PYTHON
- Markdown: Comments and notes
- Execute cells to run code
- Output printed after cell

In [14]:
```
from PIL import Image as PIL_Image

orig_img_path = '/home/xilinx/jupyter_notebooks/Examples/data/webcam.jpg'
!fswebcam  --no-banner --save {orig_img_path} -d /dev/video0 2> /dev/null

img = PIL_Image.open(orig_img_path)
img
```

Out[14]:



Documents:

Documentation

https://pynq.readthedocs.io

support

http://www.pynq.io/support

Accessible from

http://www.pynq.io

Github

https://github.com/Xilinx/PYNQ