Setting up Juputer's working environment for programming, experiments and publishing.

This article assumes that you already have the working anaconda and jupyter environment.

First of all, pandoc and textile converter should be installed.

```
sudo apt-get install pandoc
sudo apt-get install textlive-full
```

After installing **pandoc** we get **nbconvert** that allows convert jupyters notebooks to different formats.

Nbconverter docs.

`https://nbconvert.readthedocs.io/en/latest/nbconvert_library.html`

Usefull docs.

`https://github.com/jakevdp/PythonDataScienceHandbook`

Nbextensions github.

`https://github.com/ipython-contrib/jupyter_contrib_nbextensions`

Installation commands:

1. `conda install -c conda-forge jupyter_contrib_nbextensions`
2. `jupyter contrib nbextension install --user`
3. `conda install -c conda-forge jupyter_nbextensions_configurator`
4. `jupyter nbextensions_configurator enable`
5. reload `ctr-c` jupyter kernel
6. reload jupyter notebook

After all this procesures the new tab named "**Nbextensions**" will appear in the notebooks tree.

Working with extensions

1. go to View > Cell Toolbar > Edit Metadata
2. click the Edit Metadata button now showing to the top right of the cell
3. add 'hide_input':True to the json e.g. mine looked like { "collapsed": false, "hide_input": true, "trusted": true } after
4. save notebook

Converting to pdf

To conver to the notebook to pdf just run

```
jupyter nbconvert --to pdf --template printviewlatex.tplx \
Jupyter_presentation.ipynb
```

Examples of Latex formulas

Frame formulas

All frame formulas must be wrapped into following tags:

```
\begin{equation} ...formula... \end{equation}
```

$$\sum_{i=0}^{\infty} e^{i\pi} + 1 = 0 \tag{0.1}$$

```
\sum_{i=0}^\infty e^{i\pi} + 1 = 0
```

$$e^x = \sum_{i=0}^{\infty} \frac{1}{i!} x^i \tag{0.2}$$

```
e^x=\sum_{i=0}^\infty \frac{1}{i!}x^i
```

$$E = m \cdot c^2 \tag{0.3}$$

```
E = m \cdot c^2
```

$$w_i^T w_k = log(P_{ik}) = log(X_{ik}) - log(X_i) \tag{0.4}$$

```
w_{i}^{T}w_{k}=log(P_{ik})=log(X_{ik})-log(X_{i})
```

$$\begin{array}{ccc} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{array} \tag{0.5}$$

```
\begin{array}{ccc} 1 & 2 & 3\\ 4 & 5 & 6\\ 7 & 8 & 9 \end{array}
```

$$\left[\begin{array}{ccc} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{array}\right] \tag{0.6}$$

```
\left[\begin{array}{ccc} 1 & 2 & 3\\ 4 & 5 & 6\\ 7 & 8 & 9
\end{array}\right]
```

$$\int_a^b td(t) \tag{0.7}$$

```
\intop_{a}^{b}td(t)
```

$$B \cup A \tag{0.8}$$

```
B\cup A
```

$$\nabla\partial\mathbb{H}\mathbb{C}\mathbb{R}\mathbb{Q}\mathbb{Z}\mathbb{N}\exists\forall\top\bot\mathcal{OHLF} \tag{0.9}$$

```
\nabla\partial\mathbb{\mathbb{\mathbb{\mathbb
{\mathbb{\mathbb{H}C}R}Q}Z}N\exists\forall\top
\bot\mathcal{\mathcal{\mathcal{\mathcal{O}H}L}F}}
```

$$\alpha\beta\gamma\delta\epsilon\varepsilon\zeta\Delta\Theta\Xi\Pi \tag{0.10}$$

```
\alpha\beta\gamma\delta\epsilon\varepsilon\zeta
\Delta\Theta\Xi\Pi
```

$$\pm\cap\oplus\cup\times\otimes\div \tag{0.11}$$

```
\pm\cap\oplus\cup\times\otimes\div
```

$$\leq\geq\equiv\prec\succ\subset\supset\subseteq\supseteq\approx\notin\ implies\vdash\dashv\land\lor\lnot\iff\perp\ni\in\neq\parallel \tag{0.12}$$

```
\leq\geq\equiv\prec\succ\subset\supset\subseteq
\supseteq\approx\notin\implies\vdash\dashv\land
\lor\lnot\iff\perp\ni\in\neq\parallel
```

$$\int \Sigma \Pi \amalg \sqcup \bigotimes \bigodot \bigoplus \bigcap \bigcup \biguplus \bigvee \bigwedge \tag{0.13}$$

```
\int\sum\prod\coprod\bigsqcup\bigotimes\bigodot
\bigoplus\bigcap\bigcup\biguplus\bigvee\bigwedge
```

$$\widetilde{p}\overbrace{asd}\ \vec{wer}\check{q}\breve{R}\overleftrightarrow{E} \tag{0.14}$$

```
\widetilde{p}\overbrace{asd}\vec{wer}\check{q}
\breve{R}\overleftrightarrow{E}
```

$$\arccos - \tanh = \lim_{i \to \infty} + \sup\left\{ A, D \right\} \tag{0.15}$$

```
\arccos-\tanh=\lim_{i\rightarrow\infty}+\sup\left\{ A,D\right\}
```

$$\begin{cases} \begin{array}{c} x<3 \\ x=3 \\ x>3 \end{array} & \begin{array}{c} 8 \\ 11 \\ 90 \end{array} \end{cases} \tag{0.16}$$

```
\begin{cases} \begin{array}{c} x<3\\ x=3\\ x>3 \end{array} &
\begin{array}{c} 8\\ 11\\ 90 \end{array}\end{cases}
```

$$\sum_{i=0}^{N} \frac{PlnP}{\sum_{i=k}^{N}} \tag{0.17}$$

```
\sum_{i=0}^{N}\frac{PlnP}{\sum_{i=k}^{N}}
```

$$\sqrt[2]{ln(P)^{2}-ln(P_{i})^{2}} \tag{0.18}$$

```
\sqrt[2]{ln(P)^{2}-ln(P_{i})^{2}}
```

$$P(A|B) = \frac{P(B|A)P(A)}{P(B)} \tag{0.19}$$

```
P(A|B)=\frac{P(B|A)P(A)}{P(B)}
```

Inline formulas

Inline formulae $\sum_{i}^{N} A^{T}W$

```
Inline formulae $\sum_{i}^{N}A^{T}W$
```