

# Interactive workshop

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# Plan for the workshop

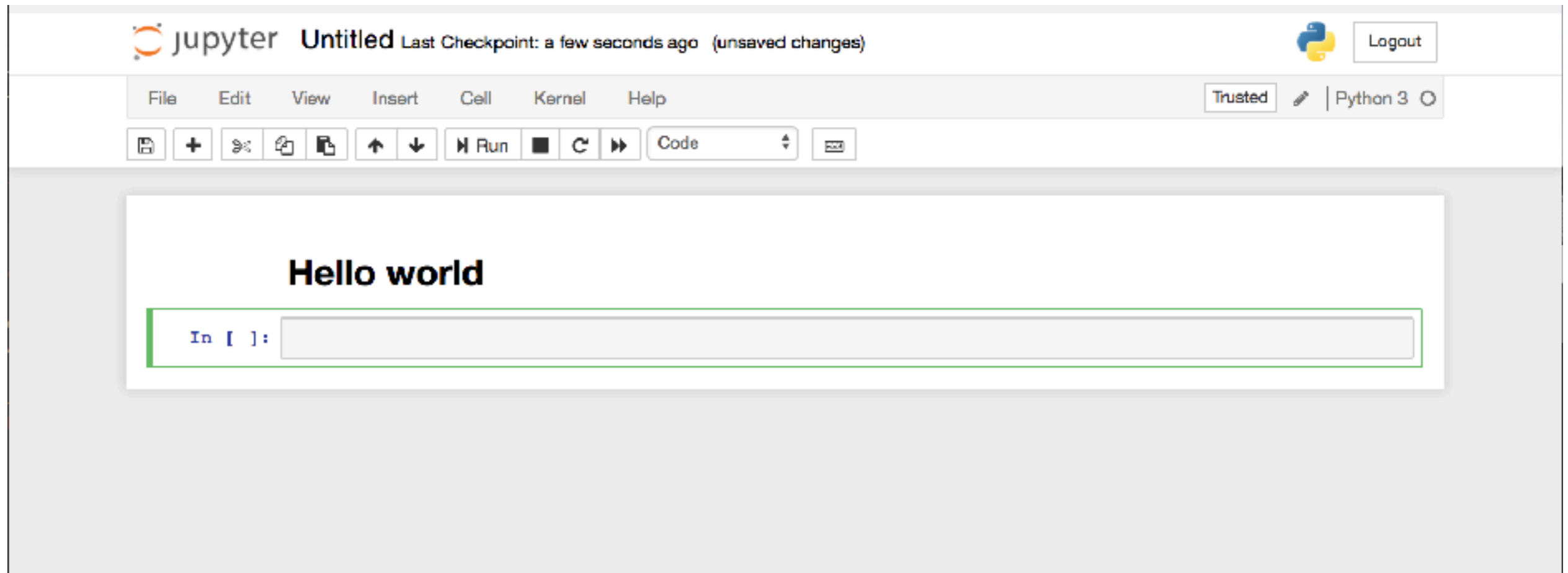
- Workshop materials are linked from: <https://mimic.physionet.org/events/bhibsn-challenge/>
- Introduction to Jupyter Notebooks
- Create connection to the MIMIC-III database
- Carry out a simple analysis of the weekend effect



# Install Jupyter

- Jupyter is software for creating executable notebooks.
- Navigate to: <https://mimic.physionet.org/events/bhibsn-challenge/>
- Follow the link to the example code repository.
- Find and follow the installation instructions.
- **Green** = done. **Red** = help!

# Jupyter



The image shows a screenshot of the Jupyter web interface. At the top, the header displays the Jupyter logo, the text "jupyter Untitled", and a status message "Last Checkpoint: a few seconds ago (unsaved changes)". On the right side of the header, there is a Python logo and a "Logout" button. Below the header is a menu bar with options: "File", "Edit", "View", "Insert", "Cell", "Kernel", and "Help". To the right of the menu bar, it shows "Trusted" and "Python 3". Below the menu bar is a toolbar with various icons for file operations (save, new, open, close), navigation (up, down), execution (run, stop, refresh), and a dropdown menu currently set to "Code". The main content area features a large text box with the text "Hello world" centered in bold. Below this text box is a code input field with the prompt "In [ ]:" followed by a large empty text area for entering code.

# Connect to MIMIC-III

```
import psycopg2
import pandas as pd
```

```
user = 'team_x' # replace x with any letter!
password = 'challenge_x' # replace x with any letter!
host = 'hst953.csail.mit.edu'
dbname = 'mimic'
schema = 'mimiciii_demo'
```

```
con = psycopg2.connect(dbname=dbname, user=user, host=host,
                       password=password)
```

```
cur = con.cursor()
cur.execute('SET search_path to {}'.format(schema))
```

```
query = \
"""
SELECT*
FROM icustays
LIMIT 10;
"""
```

```
data = pd.read_sql_query(query, con)
```

# Continue with the example

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Branch: master **bhi-bsn-challenge / challenge-demo.ipynb** Find file Copy path

tompollard fix Itertool Import c85e265 3 days ago

1 contributor

2521 lines (2520 sloc) | 176 KB Raw Blame History

## Python demo for the 2018 BHI & BSN Data Challenge

This notebook provides a simple introduction to analysing the MIMIC-III database. It was created as a demonstrator for the [2018 BHI & BSN Data Challenge](#), which explores the following question:

Are patients admitted to the intensive care unit (ICU) on a weekend more likely to die in the hospital than those admitted on a weekday?

We have provided an example slide template for final presentations (slide-template.pptx) at <https://github.com/MIT-LCP/bhi-bsn-challenge>. There is no obligation to use it!

- **Green** = done. **Red** = help!