Getting Started

Reindert-Jan Ekker
nl.linkedin.com/in/rjekker/
@rjekker

pluralsight
hardcore dev and IT training

In This Module

Obtaining and Installing

Python, pip

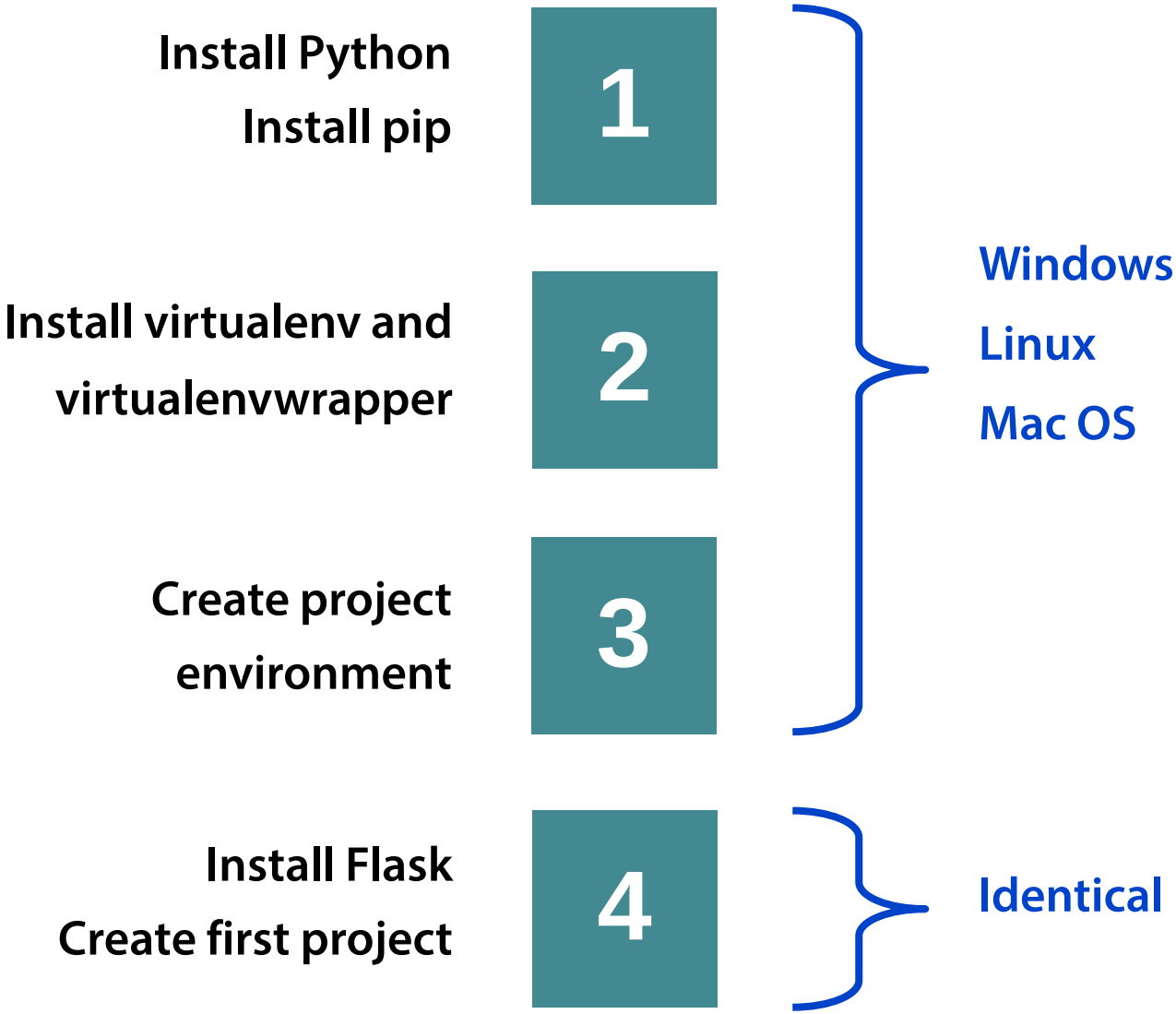
Setting up the project environment

virtualenv

A simple example application

Flask overview

Project Setup Steps



Python

- **Latest Python 2 version**
  - As recommended by the Flask documentation
  - Currently 2.7
  - Flask Python 3 support : (http://goo.gl/GrHV35)
- **Windows**
  - Download and run the msi installer from http://www.python.org/download
- **Mac OS**
  - Has an older Python pre-installed; should update
  - Preferably using Homebrew (http://brew.sh)
- **Linux**
  - Has Python pre-installed; update with package manager

Installing Pip

- **Starting with Python 3.4, pip comes pre-installed**
  - No need to install anything
- **Python 2 or Python 3 < 3.4**
  - http://www.pip-installer.org/
  - Download and run `get_pip.py`
  - Linux/Mac users may need to use `sudo`
- **Mac users using Homebrew (http://brew.sh):**
  - Homebrew installs pip with Python
- **Windows users:**
  - `pip` will be in the `Scripts` directory of the Python installation
  - Add `C:\PythonXX\Scripts\` to your `PATH`

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Installation on Windows

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Installation on Linux

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2

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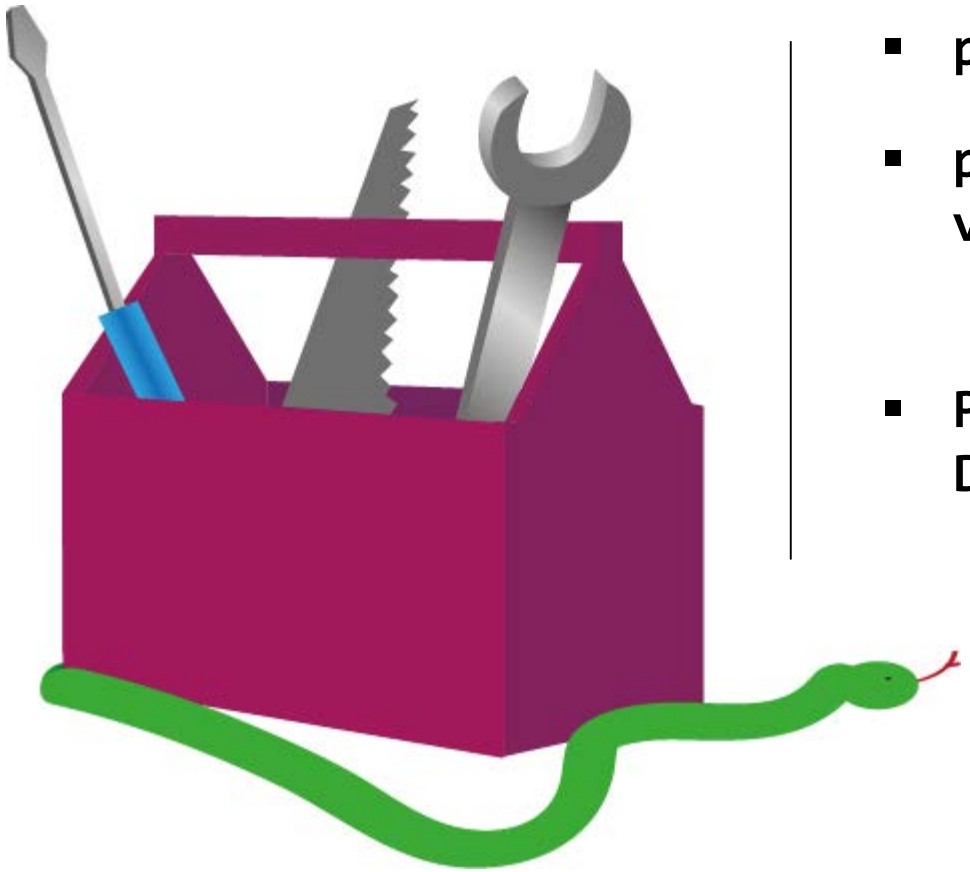
Installation on Mac OS

Installing Virtualenv with Pip



- `pip install virtualenv`
- `pip install virtualenvwrapper`
  - `virtualenvwrapper-win`
- **Pluralsight course "The Python Developer's toolkit"**
  - For more on pip, virtualenv, virtualenvwrapper

Virtual Environment

Set up a virtual environment

Packages installed inside the environment are isolated

`workon HelloWorld`

Command prompt will show **`(HelloWorld)`**

Switches to project directory

`mkproject HelloWorld`

On windows: use `mkvirtualenv` and `setprojectdir`

`deactivate`

To leave the project environment

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Installing Flask

Creating our project

Starting the project

Install Flask

```
pip install flask
```

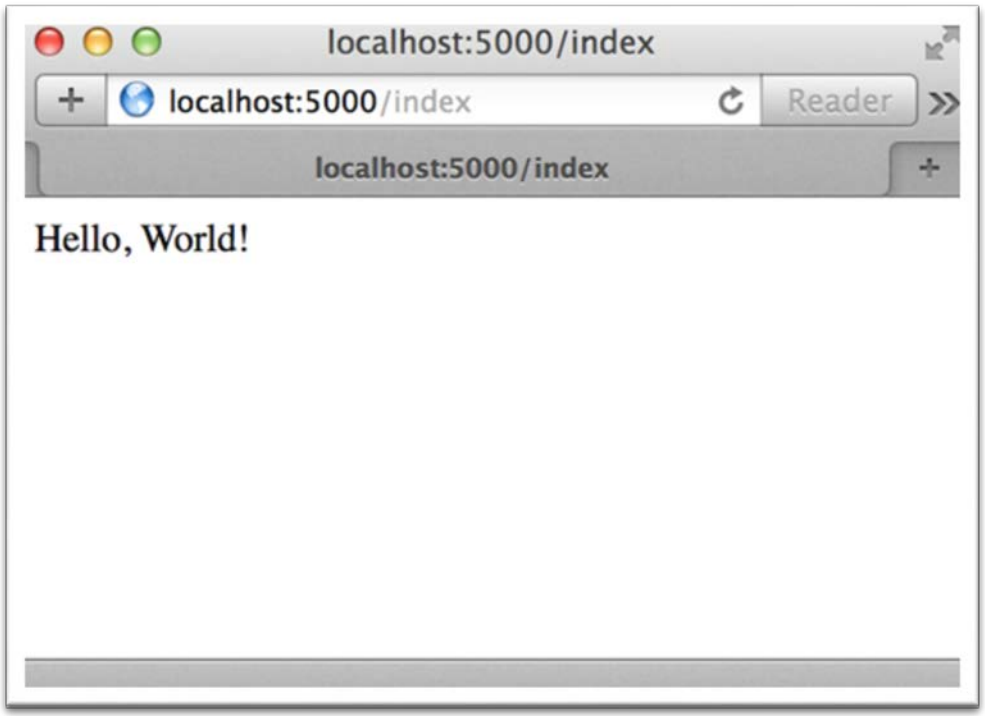
Create helloworld.py

Hello, World!

- The flask application object
  - `app = Flask(__name__)`
- A view function

```
@app.route('/index')
def index():
    return "Hello, World!"
```

Flask Request Handling



http://localhost:5000/index

Flask

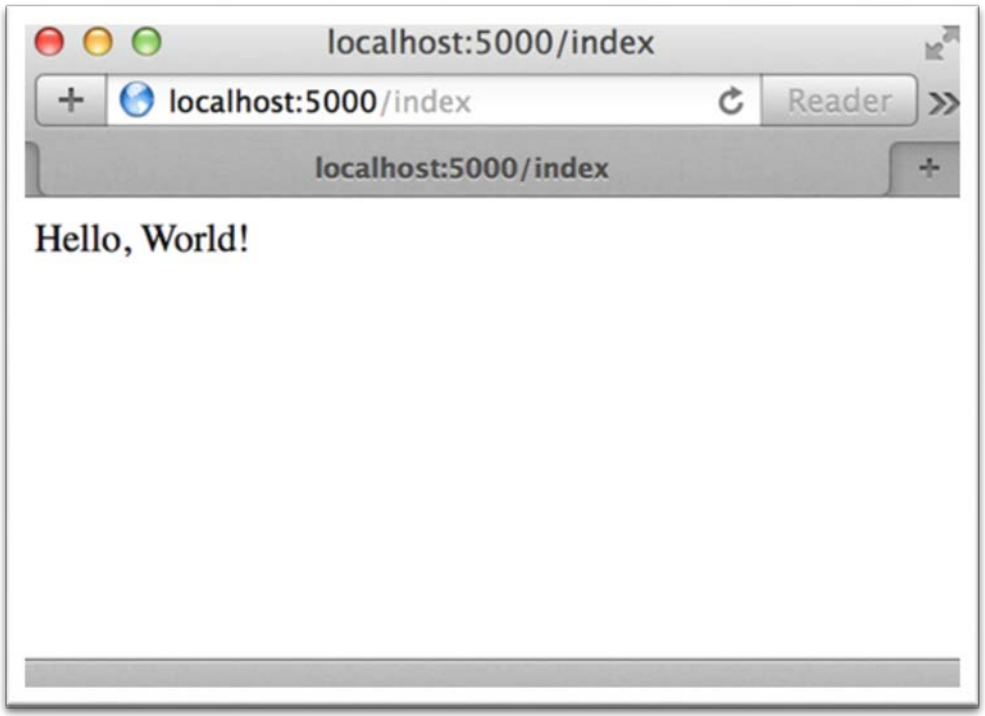
```
@app.route('/index')
```

```
def index():
    return "Hello, World!"
```

Model, Template, View

- **Model**
  - Holds data
  - Usually represents rows in a database table
  - Flask leaves it to you
  - sqlite3, SQLAlchemy
- **Template (Called "view" in MVC)**
  - Used to generate HTML
  - Flask includes Jinja2
- **View (Called "Controller" in MVC)**
  - A function that generates a HTTP response for a HTTP request
  - Mapped to one or more URLs

Flask Request Handling



http://localhost:5000/index

Flask

```
@app.route('/index')
```

```
def index():
    return "Hello, World!"
```

(view)

model:
data from database

template:
html

Resources

- http://www.pluralsight.com/training/Courses/Description/python-developers-toolkit (http://goo.gl/ySHG70)
- http://pip-installer.org (http://goo.gl/K7suLs)
- http://www.virtualenv.org (http://goo.gl/4cg944)
- http://virtualenvwrapper.readthedocs.org (http://goo.gl/vjiTMz)
- https://pypi.python.org/pypi/virtualenvwrapper-win
  - (http://goo.gl/D7qW4G)

Summary

- **Obtaining and Installing**
  - pip
- **Setting up the project environment**
  - virtualenv and virtualenvwrapper
- **A simple example application**
- **Flask overview**
  - Model/template/view
  - Routing