KOLT Python
Third-Party Packages

Ahmet Uysal

Monday 22nd April, 2019

KOLT

Agenda

1. Package Management

2. Solving a Real Life Problem

3. Final Project

Python Package Index (PyPI)

Repository of software for the Python programming language.

- 23,000+ Python3 packages.
- If you want a package, PyPI probably has it.

pip

- Recommended tool for installing Python packages.
- **`pip`** is already installed with modern Python distributions.
- Try `pip -V` on your command line/terminal(`pip3 -V` for Macs).

```
$ pip -V
pip 19.0.3 from --PATH_TO_PIP-- (python 3.7)
```

Any problems?

Common pip commands

Install a package:

```
$ pip install package_name # latest version
$ pip install package_name==1.0.1 # specific version
$ pip install package_name>=1.0.1 # minimum version
```

Uninstall a package:

```
$ pip uninstall package_name
```

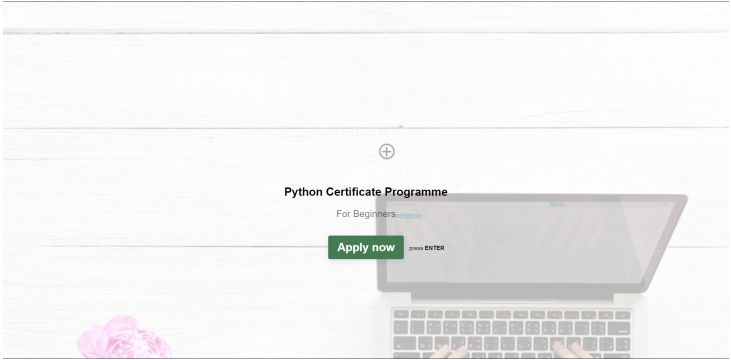
Update a package:

```
$ pip install --upgrade package_name
```

Search PyPI for matches:

```
$ pip search query
```

Solving a Real Life Problem



Problems

- No option for Masters/PhD levels
- No standard for study areas(majors)
- **What do you study in Koç?**
  - Business Administration
  - Bussines Administratiom
  - Business
  - BA
  - . . .

Responses	Total visits	Unique visits	Completion rate	Average time to complete
260	571	263	98.9%	50:34

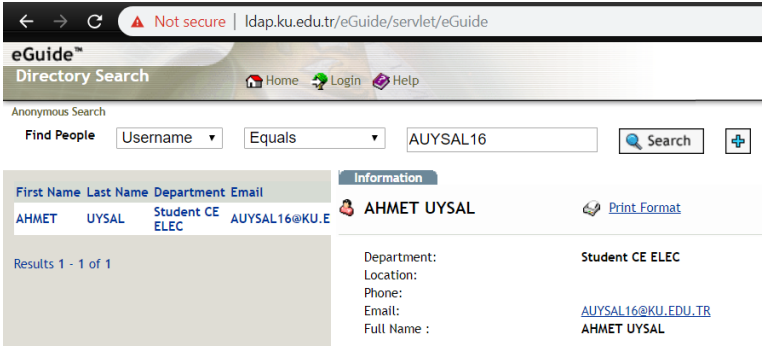
How to Categorize Students?

We need academic level and major statistics of applicants.
What can we use?

- Jokes?
- Student mails?
- KU usernames?

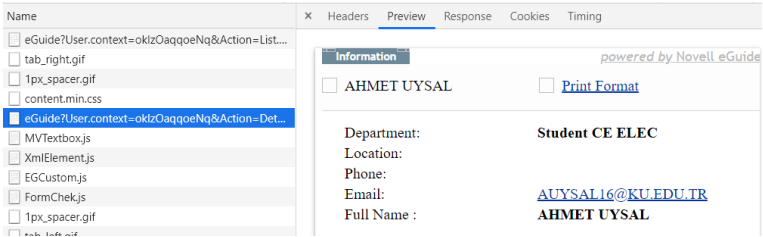
`ldap.ku.edu.tr`

How to Categorize Students?



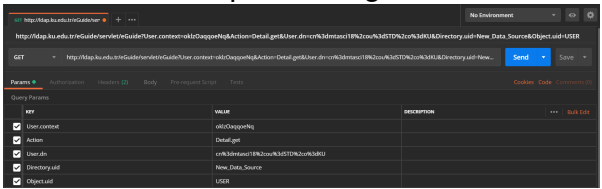
Where did this information come?

- Open the **developer console** on your browser.
- Windows: `Ctrl+Shift+I`, Mac: `Option+Command+I`
- Go to **network** tab.
- Search for a person.



HTTP Requests

Your browser sent a HTTP **GET** request to `http://ldap.ku.edu.tr/eGuide/servlet/eGuide` to get the data. Examine the request using a tool like Postman.



Can we send this request programmatically?

requests package

`requests`: HTTP for Humans
install using **`pip`**: `$ pip install requests`
requests Quickstart

```
import requests

response = requests.get('https://google.com')
print(response.content)
```

import Statements

```
import foo                    # foo imported and bound locally
# below three statements imports foo.bar.baz
import foo.bar.baz            # foo bound locally
import foo.bar.baz as fbb     # foo.bar.baz bound as fbb
from foo.bar import baz       # foo.bar.baz bound as baz
from foo import attr   # foo imported, foo.attr bound as attr
```

Problem Solution

You can get the source code *here*.
Solution will be discussed during class time, you can ask your questions with email if you missed the class.

Final Project

Final project is on!

- You will work as teams of 2 or 3.
- You can choose any topic, might be related to your research/other courses
- Choose something you will enjoy working on
- We will spend most of our remaining class time working on your projects
- Proposals due next Monday!