

KOLT Python

Third-Party Packages

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KOLT

1. Package Management
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2. Solving a Real Life Problem
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3. Final Project
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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
```

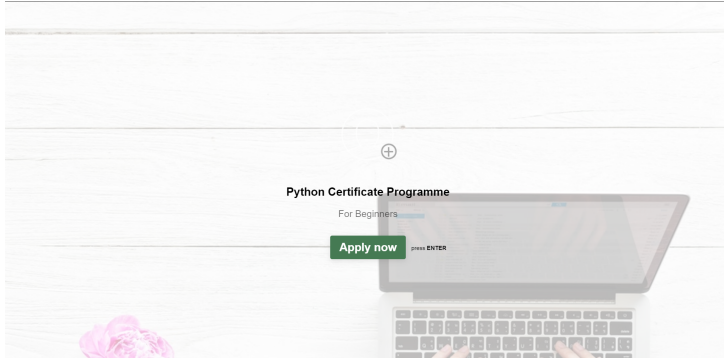
Update a package:

```
$ 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

260

Total visits

571

Unique visits

263

Completion rate

98.9%

Average time to complete

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?

The screenshot shows a web browser window with the address bar displaying "Not secure | ldap.ku.edu.tr/eGuide/servlet/eGuide". The page title is "eGuide™ Directory Search". Below the title bar, there are links for "Home", "Login", and "Help". The main content area is titled "Anonymous Search" and contains a search form with the following fields: "Find People", "Username" (with a dropdown arrow), "Equals" (with a dropdown arrow), and "AUYSAL16". To the right of the search fields are a "Search" button with a magnifying glass icon and a "+" button. Below the search form, there is a table with the following columns: "First Name", "Last Name", "Department", and "Email". The table contains one row with the following data: "AHMET", "UYSAL", "Student CE ELEC", and "AUYSAL16@KU.E". To the right of the table, there is an "Information" tab and a "Print Format" link. Below the table, there is a section titled "Results 1 - 1 of 1".

First Name	Last Name	Department	Email
AHMET	UYSAL	Student CE ELEC	AUYSAL16@KU.E

Results 1 - 1 of 1

Information

AHMET UYSAL [Print Format](#)

Department: **Student CE ELEC**

Location:

Phone:

Email: AUYSAL16@KU.EDU.TR

Full Name : **AHMET UYSAL**

Where did this information come?

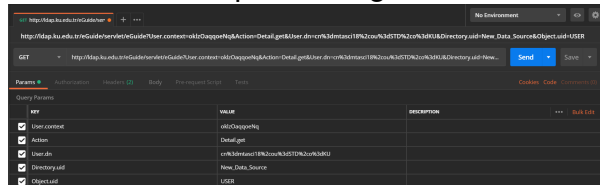
- Open the **developer console** on your browser.
- Windows: Ctrl+Shift+I, Mac: Option+Command+I
- Go to **network** tab.
- Search for a person.

The screenshot shows a browser's developer network tab with the 'Preview' sub-tab selected. On the left, a list of network requests is shown, with the selected request being 'eGuide?User.context=oklzOaqoeNq&Action=Det...'. The main area displays the response content, which is a web page titled 'Information' powered by Novell eGuide. It features a search bar with the text 'AHMET UYSAL' and a 'Print Format' link. Below the search bar, the following information is displayed:

Department:	Student CE ELEC
Location:	
Phone:	
Email:	AUYSAL16@KU.EDU.TR
Full Name :	AHMET UYSAL

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!