



Schola - Scholarships For Everyone API

IT325 Web Services

Final Project

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SCHOLA



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Problem

Why Scholarships

- Every year, graduating students struggle to find scholarships.
- Either because, there are too many sources or because the information is not clear.
- This may cause missing the deadline or missing a golden opportunity and wasting a whole year.
- This is why I made Schola.



Schola - Scholarships For Everyone API

What can Schola do

My API simplifies the scholarship search process by allowing users to easily:

- Generate the latest scholarships.
- Access a wide range of its information.
- Sort results according to user's preferences such as Degree, Location or Field of Study.
- Posting a Scholarship and much more...



Schola Objective

Why Schola

The objective of the API is simple:
Greatly impact students' ability to pursue higher education



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Web-Scraping Scholarships

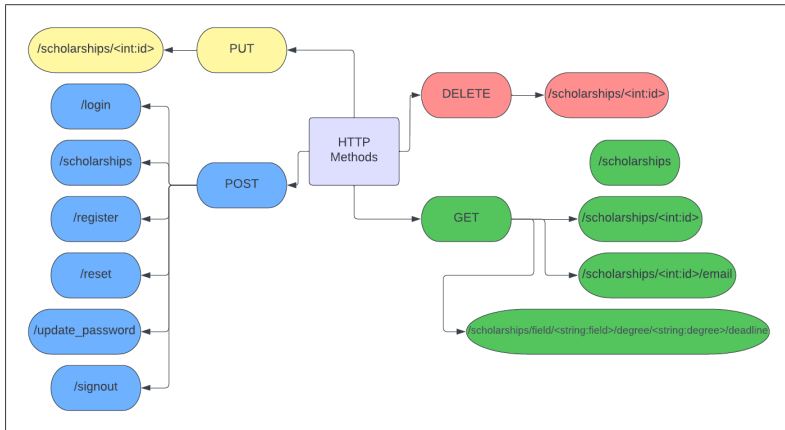
Creating a Database

To start with, Schola will web-scrape websites and generate up to 150 of the latest scholarships available.

```
C:\WINDOWS\py.exe
Fully Funded
Universiti Brunei Darussalam, Kolej Universiti Perguruan Ugama Seri Begawan, Universiti Islam Sultan Sharif Ali, Univers
iti Teknologi Brunei, Politeknik Brunei
Diploma, Undergraduate, Postgraduate, Masters
All Subjects
ASEAN member country, Commonwealth Countries, OIC Countries Students
Brunei Darussalam
Postgraduate Scholarships at Trinity College 2023
Partial Funding
Trinity College Oxford
Masters, DPhil
All Subjects
International Students
UK
FULLY FUNDED BIGSSS-DAAD Graduate School Scholarship Program 2023
Fully Funded
Bremen International Graduate School of Social Sciences(BIGSSS)
PhD
Global Dynamics of Social Policy and Social Cohesion
International Students
Germany
01/23/2023
Business Writing Techniques 2023
Free
Doane University
Online course
Communication
International Students
USA
```

HTTP Methods

Everything you need





Signed-in/Non-Signed-in Users

Security Measures

Non-Signed-in users can:

- View all the scholarships available.
- Filter these scholarships based on preferences such as location, degree...

Signed-in users can:

- Post a scholarship.
- Update or delete a scholarship the same user created.
- Get/Send information about a specific scholarship via email.



Session Authentication

Sessions as a measure of security

- Sessions stores information about the user. Users are authenticated and given access to the resources and functionalities they are authorized for if they match.
- Since session are stored on the server, its administrators can perform securities operations like logging users out, changing details if they suspect that the user is trying to scam people by posting fake scholarships.

Emails

Receiving Emails

Scholarship Details sent from the Scholarship API Inbox x



hssn.oussema@gmail.com
to bcc: me ▼

Scholarship Details

Here's the details of the scholarship you requested:

- **Title:** SMU Academic Research PhD Programmes 2023
- **Amount:** Partial Funding, Fully Funded
- **Institution:** the Singapore Management University
- **Degree:** PhD
- **Field:** Accounting, Physiology, Economics, Business, Information Technology, Computer Science +4 More, Law,
- **Students:** International Students
- **Location:** Singapore
- **Deadline:** Not Mentioned

This was sent from an API, I'm still learning and there is always room for improvements.

Thank you.

Password Reset Inbox x



hssn.oussema@gmail.com
to bcc: me ▼

Password Reset

Here's your new password:

Password: Twr6R2sL

You can use this password to log in and change it to a new password of your choice.

This was sent from an API, I'm still learning and there is always room for improvements.

Thank you.

Figure: Two types of emails the user can receive: Scholarship Details and Password Reset.



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Technologies Used

Technicalities

I used:

- Python: Developing the API
- flask: Used Flask, request, session
- BeautifulSoup: Web-Scraping
- SQLite3: Database Management
- Passlib: Hash passwords
- SMTP: Simple Mail Transfer Protocol used to send emails
- Email: Format the json file into more aesthetic format (HTML)



Possible Enhancement

No code is perfect

There are multiple enhancements that could be regarding:

- The links: Links are not available/easily extracted
- The quantity of websites scraped: Each website has a different structure which can make the scraping harder.
- Add a recommendation system: Based on your current status, the API will return scholarships that suits your profile
- An admin is missing: Admin will be able to update and delete any scholarship.

Schola - Scholarships For Everyone API

Thank you for listening!
Any questions?