

# OIM3690 - Web Technologies

2022 Spring

Session 26 (4/26)



# Today's Agenda

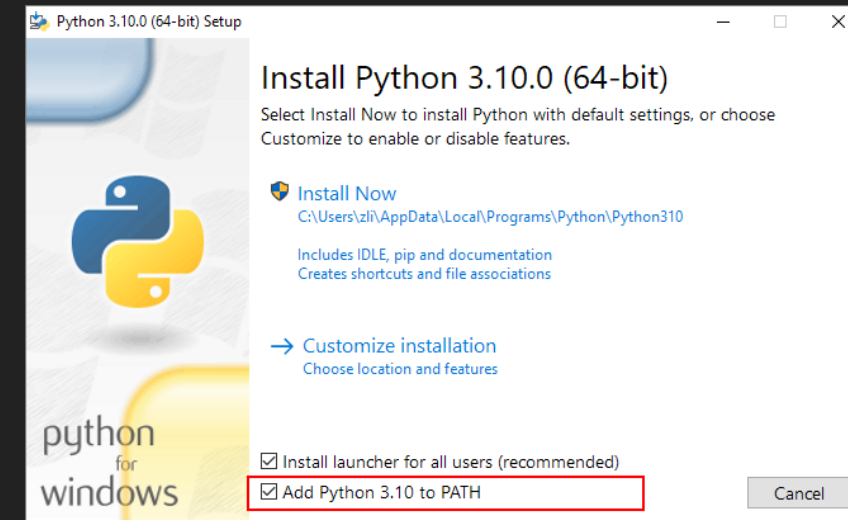
1. Welcome/News/Announcements
2. Course Review
3. Session 26
  - i. Creating a web app using **Python**
  - ii. Revisit **How web works**

# Announcements

1. Project `final`: due **Friday, 4/29**
2. Final Exam is canceled
3. Class Schedule:
  - Today: **Class Overview**/Creating Web App using **Python**
4. I am available to meet this week.
5. Grading Scheme:
  - Participation/Exercises/Quizzes: 40%
  - Graded Homework: 30%
  - Term Project: 30%

# Get Python

1. Go to <https://www.python.org/downloads/>. Click "*Download Python 3.10.4*".
  - **Be very careful for the next step!!**
2. After downloading, follow the instruction to finish installation.
  - On the first screen of installation, **enable** the "**Add Python 3.10 to PATH**" option.
  - If you forget the step above, you have to **uninstall** Python in Settings and **reinstall**.



# Social Time

*Answer the following question(s):*

1. Do you plan to learn more on **Web Dev** before graduation (or in near future)?
2. Do you plan to learn other **programming language(s)** before graduation (or in near future)?
3. Do you plan to **maintain your project website** after end of semester?
4. What question(s)/mystery(-ies) has the class answered/clarified for you? What are you still wondering about?

# Progress in 13 Weeks

- 13 weeks ago:
  - you never wrote **HTML/CSS/JavaScript**
  - you knew **nothing** or **little** about programming
  - you never used **VS Code/GitHub**
  - you never created/owned a **website**
- **Today:**
  - well, let us take a look...

# What we have learned in this semester...

1. HTML
2. CSS
3. JavaScript
4. and many other stuff
  - i. Git and GitHub
  - ii. VS Code
  - iii. Responsive Design, i.e. Bootstrap
  - iv. SEO
  - v. Domain and Hosting
  - vi. ...

# Recommendations

- [W3Schools](#)
- [MDN Web Docs](#)
- GitHub [Explore](#) and [popular topics](#)
- [r/webdev](#)
- Many MOOCs
  - Coursera/udacity/edx/lynda/Khan...
  - YouTube Channels, e.g. [freecodecamp](#), [Traversy Media](#)
  - Udemy
  - [Full Stack Open Course](#)
  - [The Odin Project](#)



# What else to learn

- A visual overview of useful skills to learn as a web developer
- CMS, i.e. [WordPress](#)
- More JavaScript, i.e. [node.js](#)
- Web application framework, i.e. [React](#), [Vue.js](#)
- YouTube: [Web Development In 2022 - A Practical Guide](#)
- Other programming languages
  - Python/Java/TypeScript/Go/Rust...
  - 2021 [Stack Overflow Developer Survey](#)
- UI/UX Design
- Being a product manager

# Being a Product Manager (PM)

- Understand demand
- Collect demand
- Convert to tasks
- Project management
- ...repeat after launching the product

# Being a PM: Front-end PM/Feature PM/UI PM

- Technical skill sets:
  - UI, i.e. Sketch/Figma
  - A/B testing
  - Front-end experience
  - Data Analytics
- Interacting with other roles:
  - UI/UX Designer
  - Engineers
  - Data Analyst/Data Scientists
  - User Researchers
  - Users

# Being a PM: Back-end PM/PM-Technical

- Technical skill sets:
  - Depending on technologies of the product
    - i.e. cloud infrastructure, database products, APIs, ML algorithm
  - Data
  - Basic Coding/Software Development
- Interacting with other roles
  - UI/UX Designer
  - Engineers
  - Data Analyst/Data Scientists
  - User Researchers
  - Users

# Session 26 - Creating a web app using *Python*

# Introduction to Web Application - Flask

- What is **Flask**?
  - Flask is a micro web framework written in Python.
- Popular sites using Flask:
  - Whole website: **Pinterest, Twilio**
  - In tech stack:
    - Reddit
    - LinkedIn
    - Netflix
    - Lyft
    - ...

# Flask - Routing

- What is routing?

Modern web applications use meaningful URLs to help users. Users are more likely to like a page and come back if the page uses a meaningful URL they can remember and use to directly visit a page.

- Examples:

- [www.mysuperawesomevlog.com/new](http://www.mysuperawesomevlog.com/new)
- [www.mysuperawesomevlog.com/1](http://www.mysuperawesomevlog.com/1)
- [www.mysuperawesomevlog.com/1/edit](http://www.mysuperawesomevlog.com/1/edit)

# Session 26 - Creating a web app using *Python*

## 1. Installation

```
> python -m pip install flask  
# macOS/Linux users:  
> python3 -m pip install flask
```

## 2. Creating our first Flask application

## 3. Turn on **Debug Mode**

## 4. Resources:

- [Flask Quickstart](#)
- [Flask Web App Demo](#)
- [HTML for Flask](#)
- [10 Best Flask Tutorials For Beginners in 2022](#)



Thank you