Welcome to Term 2

Topics we will cover

MVC

Servers

Databases, SQL

Flask

CS Fundamentals (Bases, Logic, sets,...)

Timeline

Start: 22-July

End: 29-September

Deliverables:

- Workbooks
    - Part A (Due: Sep 8) and Part B (Due: Sep 3)
- Quizzes
    - (5 Quizzes, End of Week 2-6)
- Project
    - API Web Server (Sep 29)
- Exam
    - Final Exam (Sep 3)

CS Fundamentals (Discrete Maths)

- Learning Resources
  - Icons marked in Ed.
  - Videos on Canvas
  - Lessons Week 2 - Week 6 (Tuesdays)
- Assessments
  - 5 quizzes Week 2 - Week 6 (Saturdays), 20 mins, 10 MCQs
  - Exam: Week 7, 2 hours
  - Workbook B

Database

- Learning Resources
  - Icons marked in Ed.
  - Videos on Canvas
  - Weekly Lessons
- Assessments
  - Workbook A
  - API Web Server

Flask

- Learning Resources
  - Icons marked in Ed.
  - Videos on Canvas
  - Weekly Lessons
- Assessments
  - Workbook A
  - API Web Server

Things to consider

- Important and vast topics to be covered
- Frequent revision and practice necessary
- Plan ahead: Workbook and Exam due September 3
- 3 weeks to work on Flask Web Server API
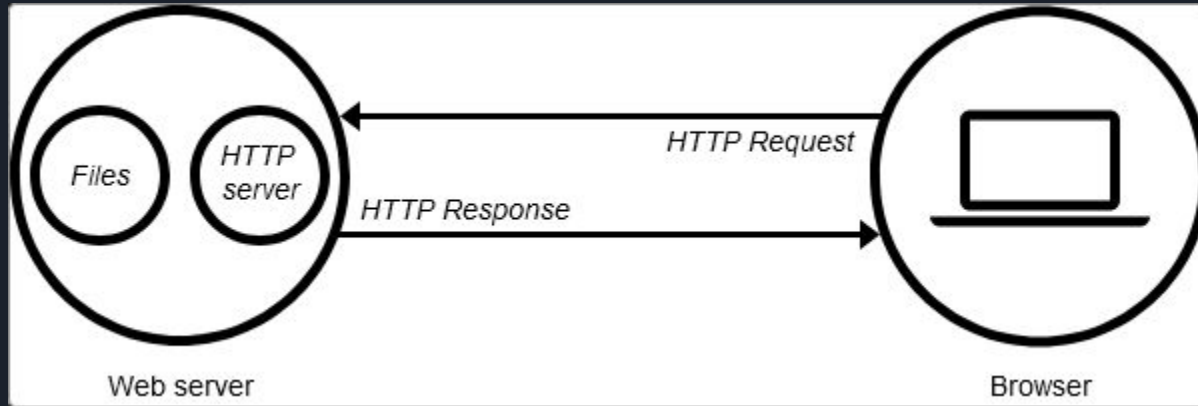
What are we covering today?

- Servers
- APIs
- Requests and Responses

Server

- Computer/System that serves information on the internet.
- Stores the components of the resources, data, services, or programs.
- Computers/Systems that access the information are **clients.**
- Types of Servers:
    - Web Servers
    - Application Servers
    - Database Servers

How does a Server work?

- Servers listen to requests from the clients
- Servers process the requests
- Servers sends back appropriate responses
- [Link](#)

APIs

- API stands for "Application Program Interface"
- Medium for communication between softwares/applications
- Example: A website's API can be used by your app to retrieve information/content/data from the website.
- Responses with data typically come in JSON format.

Why APIs?

- Allows integration of different systems and applications.
- Allow automation and interaction between software components.

Requests and Responses

https://developer.mozilla.org/en-US/docs/Web/HTTP/Messages