

## Flask

What is Flask?

- Web application framework
  - Collection of libraries and modules for writing applications without a huge learning curve
- Python module for developing web applications
- Easy integration into MongoDB (NoSQL database management system)
- Installed using pip (Python package manager)
  - pip install flask

RESTful API

- REST - Representational State Transfer
- An interface that two systems use to exchange information
- Way to access web services with a set of operations
- Uses HTTP protocols to create web APIs

Flask-RESTful

- Extension for Flask for building REST APIs
- Routes can be defined for GET requests to provide information needed for endpoints

## MongoDB

What is MongoDB?

- Pre-configured set of HTTPS endpoints to read and write data
- Stores data in flexible JSON-like documents
- Contains drivers for different programming languages that allows you to call functions and operations such as (CRUD - create, read, update, and delete)
- Free to use!

HTTP API

- RESTful HTTP API allows you to interact with MongoDB using HTTP methods (GET, POST, PUT, DELETE)
- Simple database operations to access a while range of languages and platforms
- HTTP API Enpoint Example
  - GET /databases/{database\_name}/collections/{collection\_name}/documents
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## Setting Up

- Install MongoDB
- Install a framework such as Flask (if you use Flask you'll need Python too)
- Create a MongoDB server, a database and a collection
- Create a Flask application with a python file
- Run your python file with command python file\_name.py
- The API Server will run at <http://localhost:5000>

- Add endpoint with the following line of code
  - `@app.route('jackofalltrades/courses')`, methods['GET', 'POST']
  - GET retrieves courses
  - POST adds courses