

Session 2: Building the Backend

Session 2 Objectives & Setup

- **Tech Stack:**
 - Example: Python Flask or Node.js with Express
- **Goals:**
 - Set up a backend service from scratch
 - Implement full CRUD endpoints
 - Understand middleware and error handling

Project Setup & API Design

- **Project Structure:**
 - Define directories, install dependencies
- **API Scope Example:**
 - To-Do App (tasks: create, read, update, delete)
- **Endpoint Mapping:**
 - `/tasks` (GET, POST)
 - `/tasks/{id}` (GET, PUT, DELETE)

Live Coding: Building Your API

- **Initial Setup:**
 - Initialize project and configure routing
- **Example with Node.js/Express:**

```
const express = require('express');
const app = express();
app.use(express.json());

let tasks = [];

app.get('/tasks', (req, res) => {
  res.json(tasks);
});

app.post('/tasks', (req, res) => {
  const task = { id: tasks.length + 1, ...req.body };
  tasks.push(task);
  res.status(201).json(task);
});
```

Discussion & Q&A Session 2

- Review challenges and debugging tips
- Explore middleware options (logging, security)
- Open floor for questions

