

# FastAPI - Day 2: Installation & First Steps

## 1. Folder Setup & Installation

- Create a new folder for your FastAPI project.
- Install FastAPI and Uvicorn:  
    `pip install fastapi uvicorn`
- Uvicorn is the server that runs FastAPI apps.

## 2. First Endpoint

```
Example:
from fastapi import FastAPI

app = FastAPI()

@app.get("/")
def read_root():
    return {"message": "Hello, FastAPI!"}

- Run: uvicorn main:app --reload
- Visit: http://127.0.0.1:8000/
```

## 3. Multiple Endpoints

```
Example:
@app.get("/hello")
def say_hello():
    return {"message": "Hello World"}

@app.get("/goodbye")
def say_goodbye():
    return {"message": "Goodbye!"}
```

## 4. Path Parameters

```
Example:
@app.get("/restaurant/{name}")
def get_restaurant(name: str):
    return {"restaurant": name, "status": "open"}
```

## 5. Real-World Example: Restaurant Menu

```
Example:
@app.get("/restaurant/{name}")
def get_restaurant(name: str):
    restaurant = name.lower()
    if restaurant == "pizzahut":
        return {"restaurant": "PizzaHut", "status": "open",
                "menu": ["Pizza", "Pasta", "Garlic Bread"]}
    elif restaurant == "dominos":
        return {"restaurant": "Dominos", "status": "closed",
                "menu": ["Veg Pizza", "Cheese Burst", "Brownie"]}
    else:
        return {"restaurant": name, "status": "unknown"}
```

## 6. Scalable Version with Dictionary

```
restaurants = {
    "pizzahut": {"restaurant": "PizzaHut", "status": "open",
                 "menu": ["Pizza", "Pasta", "Garlic Bread"]},
    "dominos": {"restaurant": "Dominos", "status": "closed",
                 "menu": ["Veg Pizza", "Cheese Burst", "Brownie"]}
}

@app.get("/restaurant/{name}")
def get_restaurant(name: str):
    restaurant = restaurants.get(name.lower())
    if restaurant:
        return restaurant
    return {"restaurant": name, "status": "unknown"}
```