**Claude.ai Prompts**

A collection of categorized and practical prompts to use with Claude.ai for generating full backend systems, web/mobile structures, and diagrams.

## Generate Full Python Backend for HR Management App Prompt:

You are an expert Python backend engineer. I am building an HR management app with functionalities such as login/registration (with Firebase), job posting, user roles (admin/member), and company profile management.  
Generate a complete backend using FastAPI with SQLite for the database. Ensure endpoints for creating, reading, updating, and deleting company details, members (max 3), job categories, and job posts. Include authentication middleware and proper response models.  
Structure the code into separate folders: routers, models, database, main.py. Add example `.env` and database setup.

## Generate Full Backend API in Python for Job Interview Coach App Prompt:

You are an expert Python backend developer. Create a complete FastAPI-based backend for a Job Interview Coach app.  
Features: user registration/login, question generation endpoint (mock), answer submission, answer evaluation, and history storage. Use SQLite as the database and SQLModel or SQLAlchemy.  
Structure the code modularly (models, routers, database, schemas). Use Pydantic models and include a working example of job roles and interview questions.

## Generate Python Backend with API for AI Multitasker App Prompt:

You are an expert backend developer. Create a backend in FastAPI for an AI Multitasker app that handles multiple task endpoints (e.g., text summarization, image analysis, speech recognition).  
The backend should have endpoints like /summarize, /analyze-image, /transcribe. Use appropriate mock functions. Provide error handling, logging, and example responses. Use SQLite and SQLAlchemy for storing request logs.

## Full Python Backend with Gemini or OpenAI API Integration Prompt:

Act as a senior Python engineer. Build a FastAPI backend that integrates with the Gemini or OpenAI API to provide AI features for an education or productivity app.  
Include an endpoint to accept user questions and return generated answers. Store user interactions in the database. Include models, routers, and configuration using environment variables.

## Generate Full Backend for E-Commerce App in Python Prompt:

You are a senior Python backend engineer. Create a complete FastAPI backend for an e-commerce application.  
Features should include user authentication, product catalog, shopping cart, order management, and payment handling (mock integration). Use SQLite or PostgreSQL. Organize code into modules: routes, services, models, schemas, and database.

## Generate Full Web App Structure Prompt:

You are a full-stack software architect. I want to build a web application using React for the frontend and FastAPI for the backend.  
Generate the full project structure including folders for frontend (React) and backend (FastAPI). Include examples for routing, authentication, API calls, and component layout. Include sample scripts to run both frontend and backend in development.

## Generate Full Mobile App Structure Prompt:

You are a mobile app architect. Create a full project structure for a Flutter app that connects to a FastAPI backend.  
Include folders for screens, models, services, and components in Flutter. Backend should have APIs for login, data fetch, and CRUD operations. Include connection logic between frontend and backend.

## Generate Backend Code with Admin Panel Integration Prompt:

You are a Python backend expert. Build a backend using FastAPI that includes an admin dashboard using a tool like FastAPI-Admin or another web-based admin panel.  
Include models for user management, logs, and settings. Provide authentication for admin panel and normal users.

## Generate ER Diagram from App Requirements Prompt:

You are a system designer. Based on the following app description, generate an Entity Relationship (ER) diagram in text or mermaid.js format.  
Describe the tables, relationships, and keys clearly. App Description: [Insert app use case here, e.g., Learning Management System].

## Generate Flowchart for Backend Workflow Prompt:

You are a technical diagram creator. Based on the backend structure of a FastAPI-based app with authentication, CRUD APIs, and logging, create a system-level flowchart using Mermaid or PlantUML syntax.  
Include components such as user request, API handling, validation, DB operations, and response.

## Generate Python Backend with WebSocket Support Prompt:

Act as a Python backend expert. Build a FastAPI backend that supports WebSocket connections for real-time chat functionality.  
Include endpoints for message sending, user connections, and room management. Use in-memory storage (e.g., dict) for demonstration.

## Generate API Documentation with Swagger Prompt:

You are a backend developer. Generate detailed OpenAPI (Swagger) documentation for a FastAPI backend that handles user registration, login, CRUD operations on tasks, and notifications.  
Include examples and descriptions for each route.

## Generate CI/CD Pipeline for Python Web App Prompt:

You are a DevOps engineer. Provide a CI/CD pipeline script for deploying a FastAPI app using GitHub Actions and Docker.  
Include steps for testing, building the image, and deploying it to a cloud provider like Azure App Service or AWS.

## Generate Python Backend with Background Task Queue Prompt:

You are an expert backend engineer. Create a FastAPI backend that supports background tasks using Celery and Redis.  
Tasks include sending emails and processing uploads. Show how to structure and run these tasks asynchronously.

## Generate Full AI-Powered Note Taking App Backend Prompt:

You are a Python backend developer. Build a FastAPI backend for an AI-powered note-taking app.  
Include endpoints for user auth, note creation, AI summarization (mock or real with OpenAI/Gemini), and storage. Use SQLite and Pydantic models.