

# **Zomato Restaurants Analysis and Rating Prediction**

**PW  
Internship**

**Architecture  
Design**

**Rishi Raj**  
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# INTRODUCTION

## 1.1 Introduction

Any software needs the architectural design to represent the design of the software. IEEE defines architectural design and “the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system.” The software that is built for computer-based systems can exhibit one of these many architectures. Each style will describe a system category that consists of A set of components (eg: a database, computational modules) that will perform a function required by the system. The set of connectors will help in coordination, communication and cooperation between the components. Conditions that how components can be integrated to form the system. Semantic models help the designer to understand the overall properties of the system.

### 1.1 What is Scope?

Architecture Design Document (ADD) is an architectural design process that follows a step-by-step refinement process. The process can be used for designing data structures, required software architecture, source code and ultimately, performance algorithms. Overall, the design principles may be defined during requirement analysis and then refined during architectural design work



## 2.ARCHITECTURE

### 2.1 FASTAPI ARCHITECTURE

FastAPI is a modern web framework developed in Python. It has gained a lot of attraction in recent times. Its development structure is very much similar to Flask, which was the de-facto option for anyone starting with web development using Python. FastAPI is easy to use, its documentation is well written and easy to follow along. FastAPI offers all the standard features of an API building tool but it is not limited to this. It comes with a lot of flexibility such as backward WSGI mounting support which, most of the users, are not aware of.





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## 2.2 COMPONENTS OF FASTAPI

### 1. Include Django and Flask

FastAPI is an ASGI web framework that allows for concurrent request handling, meaning requests can be processed independently and do not need to wait for others to complete. In contrast, WSGI frameworks like Flask and Django process requests sequentially. FastAPI can integrate WSGI applications, such as Flask, allowing a FastAPI app to delegate specific routes to these WSGI applications for handling requests.

### 2. Mount different FastAPI apps for different routes

Additionally, you can mount different FastAPI applications on separate routes within a main FastAPI application. This setup allows each sub-application to operate independently, with its own documentation and request handling for its designated paths.

### 3. Automatic docs

FastAPI offers automatic API documentation and interactive exploration interfaces. Leveraging the OpenAPI standard, it includes built-in support for generating these interfaces, providing users with multiple options to explore the API.

## 3.DEPLOYMENT

### 3.1 FASTAPI DEPLOYMENT

The deployment process lets you clone content from one stage in the pipeline to another, typically from development to test, and from test to production. During deployment, FAST API copies the content from the current stage, into the target one. The connections between the copied items are kept during the copy process. FAST API also applies the configured deployment rules to the updated content in the target stage. Deploying content may take a while, depending on the number of items being deployed. During this time, you can navigate to other pages in the FAST API portal, but you cannot use the content in the target stage

**THANK  
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