**College Student Attendance System Architecture**

Microprocessor-based system

Web service running on Web Server

End-user Device Application

**Microcontroller Module Architecture**

DT-06 Wireless WiFi Serial Port Transparent Transmission Module TTL to WiFi

Raspberry Pi 4B

Microprocessor

Raspberry Pi Camera Module V2 Official 8 Megapixel HD

Aggregated LED system on PCB for Notification Management

Standard Matrix Key Pad 4×4 Press - Finger Print Module Serial UART TTL

**User Application Architecture**

**[Three-tier Client Server Architecture]**

Presentation Tier

Client

Client

Client

Business Tier

API for image matching running on server

Data Access Tier

Database on Web Server

**System Model [Client Server Model]**

Server

Client

Client

Client

Client

**Web Service API Architecture [running on Web Server]**

**REST Client**

**Database**

**REST Request Handler**

**Service Handler**

**[Process Request and prepare JSON response]**

**DB Handler**

**[Read DB resource]**

**RESTful Web Service**

Request

[GET, PUT, Post]

JSON Response