DHIRAJ ZEN B K 276425@student.annauniv.edu PH : 7338885805

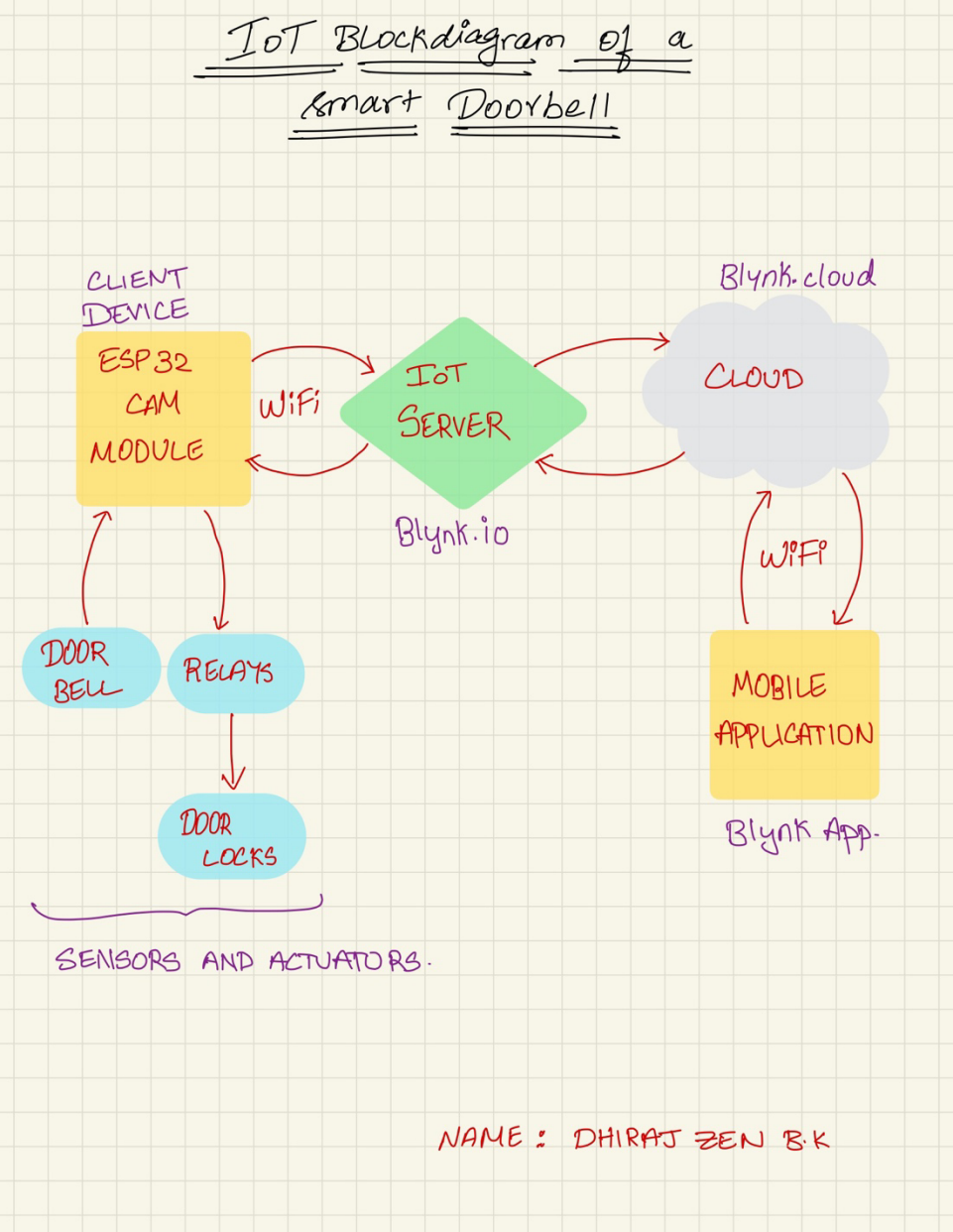
TASK-1

Design IoT Architecture/Block diagram of any Smart IoT device of your choice.

I had previously made an IoT project “Gas leakage Alarm System” based on Blynk IoT platform. Similar to that, for this task I have considered designing a Smart Doorbell System using the same Blynk IoT platform.

In this design I have considered using the ESP32-CAM which comes along with a Camera and Wifi module. The ESP-CAM acts as a client that is connected to the server wirelessly using WiFi. The sensor data that we get from the ESP is sent to the cloud by the server. This data can be accessed through a mobile phone connected to the cloud network using WiFi.

We can connect as many clients as we want to the server and have access and control over the clients using our mobile phones connected to the cloud network.



DHIRAJ ZEN B K 276425@student.annauniv.edu PH : 7338885805

In this design I have used a single client connected to the server. The doorbell switch and door locks via relays are connected to the ESP.

When the doorbell is pressed, an alert is sent by the server to our mobile phone via the cloud. This communication is two ways, meaning, after the alert, we can view or take a photo using the camera module by clicking a button on the mobile phone dashboard.
Likewise, we can also choose to open the door lock using a button on the mobile phone dashboard.

The IoT server is responsible for all the communication between the mobile phone and the hardware. The Blynk.io serves as the server and the Blynk App allows us to create mobile phone dashboard to view and control the hardware.

The usage of cloud network allows us to access and control the hardware using our smartphones from anywhere in the world, just by connecting to the internet.