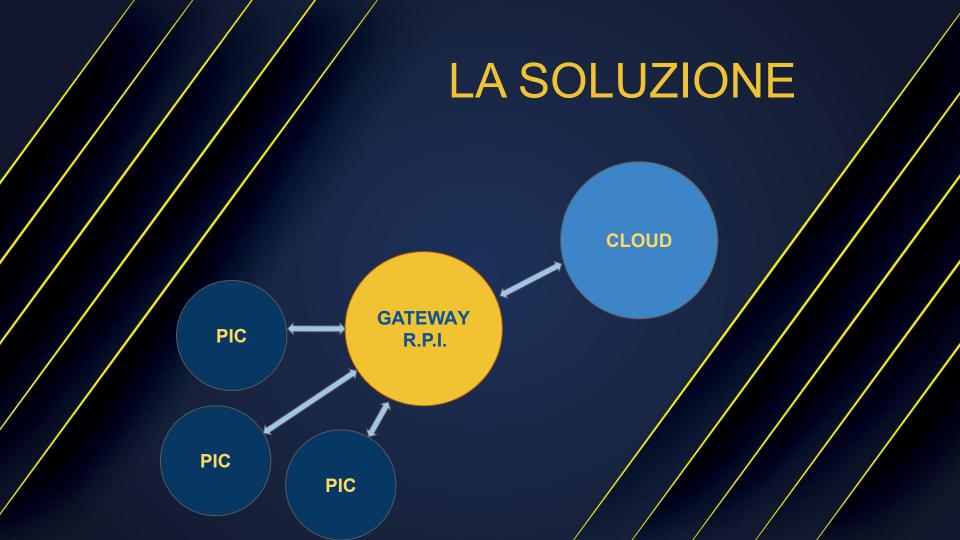


#### LA RICHIESTA

Realizzazione di un sistema di gestione e controllo dello stato di porte e condizioni climatiche dei vagoni di un treno.



### LE COMPONENTI

**CLOUD** 

- WebApp Razor pages
- MQTT Protocol Hivemq
- MongoDB
- Telegram Bot

Display Python TKinter

- Python as binder
  - Redis

GATEWAY R.P.I.

PIC

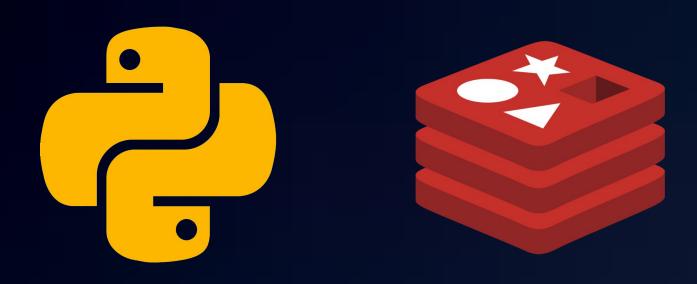
LCD Display Menu

## Pic Microcontroller



## PIC Display Simulation

# RPI Technologies

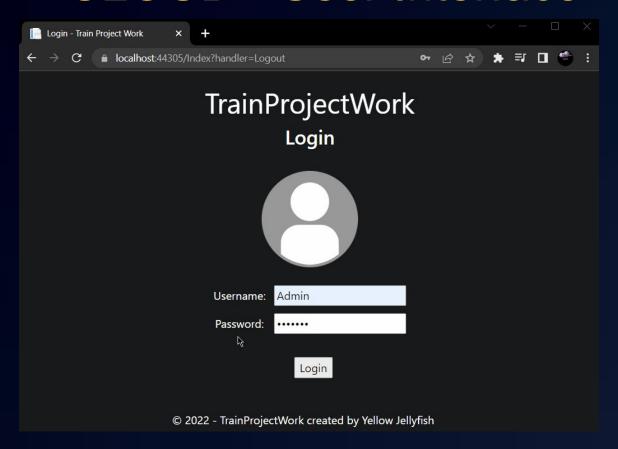


### RPI User Interface

### **CLOUD - MQTT PROTOCOL**



### **CLOUD - User Interface**







# REPO GITHUB



