<center>IOT</center>

The Internet of Things (IoT) describes the network of physical objects—"things"—that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet.

MQTT –

Message Queue Telemetry Transport

Problem

IoT early implementers understood that it is impractical

in many situations to have devices talking to each other

directly by initiating peer-to-peer communication.

Node-RED

Node-RED is a programming tool for wiring together hardware devices, APIs and online services in new and interesting ways.

It provides a browser-based editor that makes it easy to wire together flows using the wide range of nodes in the palette that can be deployed to its runtime in a single-click.

STM32

What is Azure?

At its core, Azure is a public cloud computing platform—with solutions including **Infrastructure as a Service** (IaaS), **Platform as a Service** (PaaS), and **Software as a Service** (SaaS) that can be used for services such as analytics, virtual computing, storage, networking, and much more. It can be used to replace or supplement your on-premise servers

An X.509 certificate is a digital certificate based on the widely accepted International Telecommunications Union (ITU) X.509 standard, which defines the format of public key infrastructure (PKI) certificates. They are used to manage identity and security in internet communications and computer networking. They are unobtrusive and ubiquitous, and we encounter them every day when using websites, mobile apps, online documents, and connected devices

Communicating with broker using Python program

The Eclipse Paho module allows us to import the MQTT in any of the 3 modes

☐ Publisher

☐ Subscriber

☐ Client