

Inlämnings uppgift VG nivå

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Azure konto

- skapa Azure konto - pay as you go
- skapa IoT hub
- skapa cosmos DB
- skapa Azure function
- **skapa Sql DB**

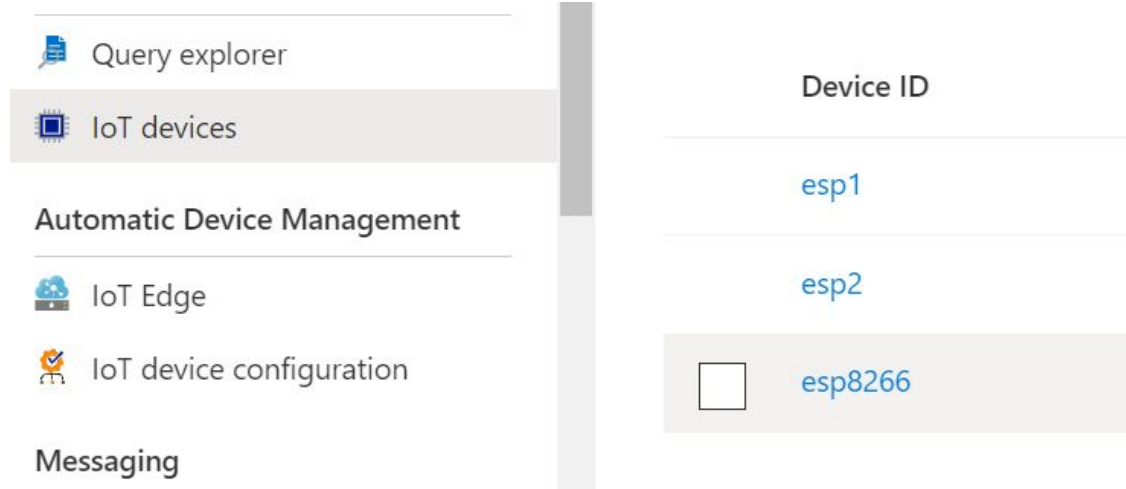
Recent resources

Name

 sqldbdemo1 (sqldbdemo1server/sqldbdemo1)
 juliacosmosdemo1
 juliafunctiondemo1
 juliaiothubdemo1
 GROUP1
 Azure subscription 1

Arduino sketch -- C++

- använda device en till esp32
- sketch använder Wifi, IoT Hub, Ultrasonic, json, epochtime lib
- git ignore securities.h
- kör sketch så att IoT Hub kan få Distance meddelande från esp32



Microsoft Sql Server Management -- SQL

- skriva SQL på Microsoft Sql Server Management så att skapa relation databas
- kör och testa

Visual Studio 2019 -- C#

- skapa en metoder: SaveToSql
- kör SaveToSql för att fånga meddelande från IoT Hub och skicka till sqlDB
- när lokal kör success, sen kan publicera till Azure. Då Azure kan köra funktion automatiskt

Power BI -- os

- koppla till Azure Sql DB
- filter type som “distance”
- visa data i diagram och spara som png

The screenshot shows the Microsoft Power BI Desktop interface. On the left is the ribbon with 'File', 'Home', and 'Insert' tabs. The 'Home' tab is active, showing options like Paste, Cut, Copy, Format painter, and Get data. Below the ribbon is a vertical pane with icons for Reports, Datasets, and Fields. The 'Fields' pane on the right is partially visible, showing a search bar and the word 'Fields'. The main area is divided into two panes. The left pane is the 'Navigator' pane, which shows a tree view of data sources. Under 'sqldbdemo1 [5]', the 'MessageLines' table is selected and highlighted. The right pane is the 'MessageLines' data preview, showing a table with 25 rows and 5 columns: MessageId, DateNr, TypeName, Data, and Messages. The table contains sensor data including humidity, temperature, and distance measurements. At the bottom of the interface, there are buttons for 'Select Related Tables', 'Load', 'Transform Data', and 'Cancel'. The status bar at the very bottom indicates 'Page 1' and 'AGE 1 OF 1'.

Navigator

Display Options ▾

- sqldbdemo1server.database.windows.net [1]
- sqldbdemo1 [5]
 - sys.database_firewall_rules
 - Devices
 - MessageLines**
 - Messages
 - MessageTypes

MessageLines

MessageId	DateNr	TypeName	Data	Messages
106	2021-03-02 19:22:38	humidity	62	Value
106	2021-03-02 19:22:38	temperature	32.7	Value
107	2021-03-02 19:22:44	distance	7	Value
108	2021-03-02 19:22:51	distance	14	Value
109	2021-03-02 19:22:55	distance	6	Value
110	2021-03-02 19:22:57	distance	18	Value
111	2021-03-02 19:22:59	distance	7	Value
112	2021-03-02 19:23:01	distance	20	Value
113	2021-03-02 19:23:04	distance	7	Value
114	2021-03-02 19:23:06	distance	17	Value
115	2021-03-02 19:23:07	distance	8	Value
116	2021-03-02 19:23:09	distance	18	Value
117	2021-03-02 19:23:13	distance	6	Value
118	2021-03-02 19:23:16	distance	16	Value
119	2021-03-02 19:23:19	distance	6	Value
120	2021-03-02 19:23:22	distance	17	Value
121	2021-03-02 19:23:23	distance	5	Value
122	2021-03-02 19:23:25	distance	18	Value
123	2021-03-02 19:23:28	distance	7	Value
124	2021-03-02 19:23:40	humidity	68	Value
124	2021-03-02 19:23:40	temperature	33.8	Value
125	2021-03-02 19:23:56	distance	20	Value

Page 1

Select Related Tables

Load Transform Data Cancel

AGE 1 OF 1

Fields

Search

ATE AVAILABLE (CLICK

Visual Studio Code -- Javascript

- använda React ramverk
- bygga frontend sida att anropa GetAllFromCosmosDb api från Azure
- kan visa tabel för DHT
- kan visa diagram för DHT
- kan visa distance diagram

Inlämningskrav Table Diagram

#	Deviceld	Timestamp	Temperature	Humidity
e9dc08b7-3968-4961-8dc0-17b70ea0b3b9	esp2	2021-02-28 10:22:00	29	49
f65bb877-7945-4169-95f2-85458413d9e4	esp2	2021-02-28 10:21:52	28.7	61
b0ac80df-5eb8-46f0-a143-310164a00222	esp2	2021-02-28 10:21:44	28.4	41
b789bf69-2dff-4c58-9a0e-4d5d71b71ede	esp2	2021-02-28 10:21:38	28.1	55
14790f9b-bcc2-405a-aeel-6407c573497c	esp2	2021-02-28 10:21:33	27.7	85
62b940d3-37e1-4223-b4d6-e6e91391b09e	esp2	2021-02-28 10:21:28	27.3	95
529ab316-0392-4eda-9ba5-72c3e48cdc8d	esp2	2021-02-28 10:21:23	26.5	84
de529b81-f65a-4493-be1c-4378dee509e3	esp2	2021-02-28 10:21:18	26.1	68
b18aa583-946c-485d-96cf-d4eb635b4c75	esp2	2021-02-28 10:21:06	25.9	34
cbfe6d04-fed9-4d61-92ca-1da5d09fb813	esp2	2021-02-28 10:19:47	25.9	34

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