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- [?? ??????????](#)
- [?????????](#)
- [???????????????????? API ??](#)
- [????????? Plus?????????](#)

?? ???????????

? ?????

????? Flask ?? + SQLite ??????? 210.62.179.209/Data.txt ?????????????????? ?????? Gmail API ??????
?????????Excel ??????????

? ?????

- ???Python + Flask
 - ???SQLite (temperatures.db)
 - ??????
 - requests ????????
 - schedule + threading ????????
 - pandas ?Excel ??
 - googleapiclient ?Gmail API ?????
 - ??????
 - 1F??
 - ??????
 - ???????
 - ??????
 - ??????
 - ???????
 - 2F???
 - 3F???
-

? ?????

1. ??????????

- ? 10 ??????????????????????
- ?????????????????????? Gmail API ????????
- ?????? (alert_cooldown_hours) ??????????

2. ??? (config.json)

```
{  
  "notifications": {
```

```

    "enabled": true,
    "sender": "zfuntw@gmail.com",
    "recipients": ["example@mail.com"],
    "alert_cooldown_hours": 3
  },
  "temperature_settings": {
    "1F": {"enabled": true, "threshold": 10, "defrost_hours": [3, 15]},
    "": {"enabled": true, "threshold": -5, "defrost_hours": []}
  }
}

```

3. ?????

- / ????????????????
- /history ????????????????
- /export_excel ?????????? Excel
- /settings ????????????????????

4. Gmail API ??

- ?? token.json ????????
- ????? Email ????????

5. ????????????

??? get_temperature_data ???

- ? 10 ????????????
- ????? 4 ????????????

? ???????

temperatures

??	??
id	??
timestamp	????

??	??
temp_front_room	1F??
temp_shark_fin	?????
temp_raw_material	??????
temp_finished_product	?????
temp_blast_freezer	?????
temp_precooling_room	??????
temp_2f	2F???
temp_3f	3F???

?? ?????

```
python app.py
```

???????

? <https://temp.zfun.com.tw/login>

?? ?????

- ???? Gmail API OAuth ?????? token.json?
- ??????????????????????
- ?????? 210.62.179.209 ??????????????

- ?????CSV ??/????

???????????????? API ??

?????

????? ?? ERP ? ?????? (WMS)????? ?? SKU ??? ??????????????????

?? Web ??? API??

?????

- ?????? ERP (MSSQL)

- ??? comProduct ? comBatchAmount
- ??? BCQty > 0 ? WareID <> 'B'

- ?? API?????????

- URL: `https://stock.zfun.com.tw/wp-json/batch/v1/get-pallet`
 - ???
 - sku : ??? (ProdID)
 - batch_number : ?? (BatchID)
-

??????????

?????	??
SKU	???? (ProdID)
????	???? (ProdName)
??	?? (BatchID)
??	???? (WareID)
??	???? (BCQty)
????	???? (ProduceDate)
????	???? (ValidDate)
??	?????? API ? location ??

API ?????

1. ERP ????? API

- ??? GET /api/sku/<sku>
- ??????

```
{
  "SKU001": [
    {
      "no": "20250801",
      "inbound_date": "2025-08-01",
      "expiry_date": "2026-08-01",
      "quantity": 100
    }
  ]
}
```

2. ??????? API

- ?? API URL?

```
{
  "success": true,
  "data": [
    {
      "product_name": "????1.1-1.2K(12?/?)",
      "sku": "R07-001-00",
      "batch_number": "20250730",
      "pallet_number": "20250730132412",
      "quantity": 600,
      "unit": "?",
      "location": "B11-1-1"
    }
  ]
}
```

- ??????

```
B11-1-1
B11-1-2
B11-1-3
```

????

1. ????? **SKU** ??????
2. ??? **?? ERP** ??????????????
3. ?????????????? **WMS API**?????????
4. ?????????? ??????????????

????

- ????? **B** ???????
 - ??? **???????** **0** ????
 - ????????? **?????????** **API** ???
 - ????? API timeout ????????????
-

