

Data Flow

Data flow refers to how data work and transit from one endpoint to another.

Stage of data flow from Ms Server to API server:

1. Pulling Data from Daily procedure SQL server and store it into a backup file aligned by date.
2. Login to API and add a token to local storage.
3. Posting daily transactions from local files to API Server can be manually or automatically.

Project Structure

This is how the project is structured inside the project folder. Each folder contains its purpose file.

```
|—dbcsv //Backup daily transaction by date and store
|—doc  // Document
|—logs // Events logs
```

Detail View

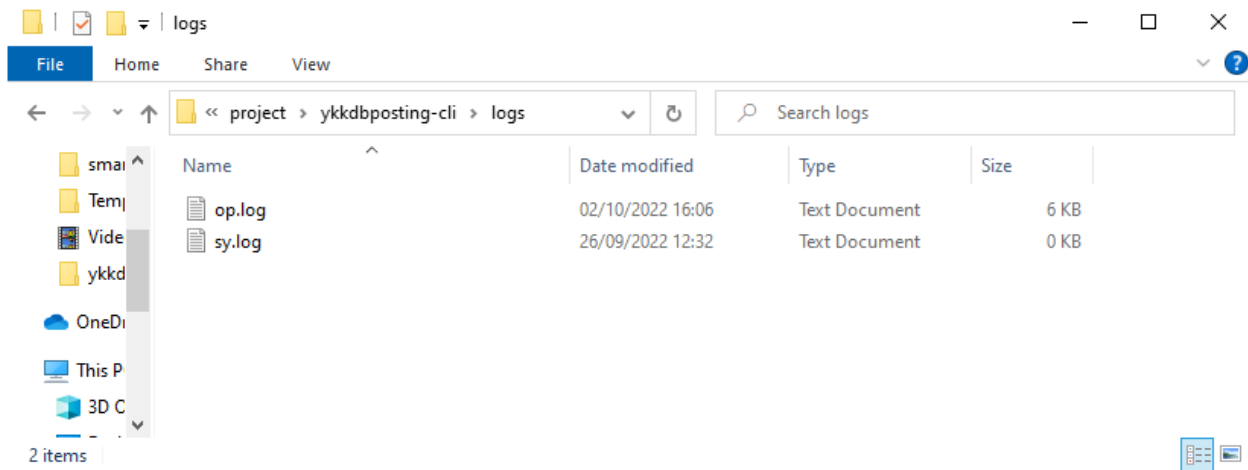
Mode	LastWriteTime		Length	Name
----	-----		-----	----
d-----	01/10/2022	11:30		dbcsv
d-----	01/10/2022	13:08		doc
d-----	26/09/2022	12:32		logs
-a-----	01/10/2022	11:59	444	.env
-a-----	27/09/2022	13:46	36	.gitignore
-a-----	26/09/2022	19:13	42	2022-09-26.csv
-a-----	01/10/2022	11:24	867	commands.js
-a-----	26/09/2022	12:47	428	dbConfig.js
-a-----	26/09/2022	16:59	978	dbOperation.js
-a-----	01/10/2022	11:53	2695	getDailyTransaction.js
-a-----	01/10/2022	11:58	1382	loginToAPI.js
-a-----	30/09/2022	22:23	145860	package-lock.json
-a-----	30/09/2022	16:43	629	package.json
-a-----	01/10/2022	12:06	1817	postDailyTransaction.js
-a-----	01/10/2022	11:36	2923	postData.js
-a-----	27/09/2022	19:05	228	README.md
-a-----	26/09/2022	14:21	871	toDateFM.js
-a-----	01/10/2022	11:35	264	tokens.json

Event log file

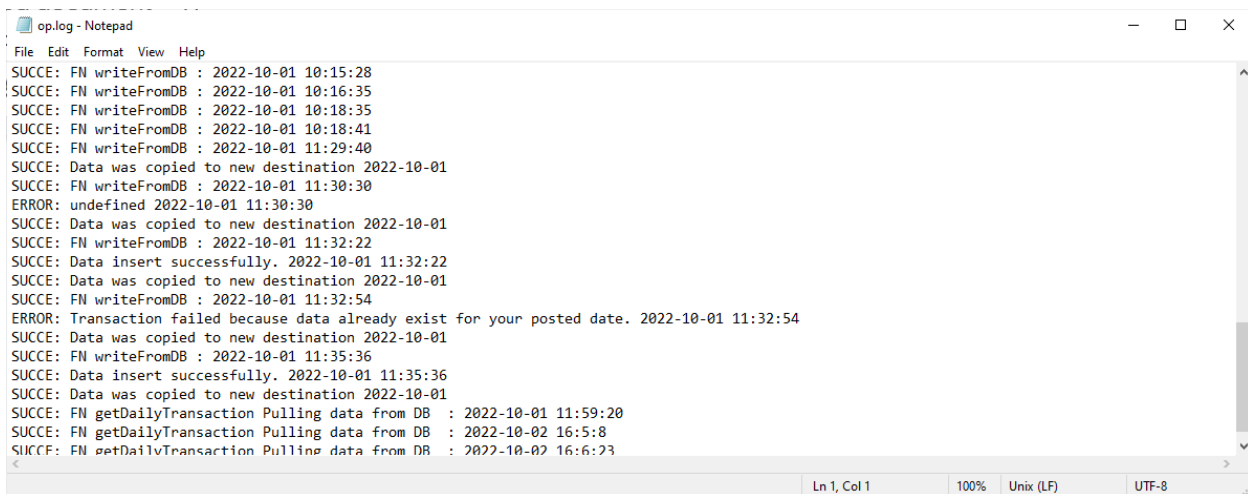
Where is the journal of the event?

Each process is properly written into a log file at the specific date time. Here is the event log file located.

logs/op.log



The log should look as following:



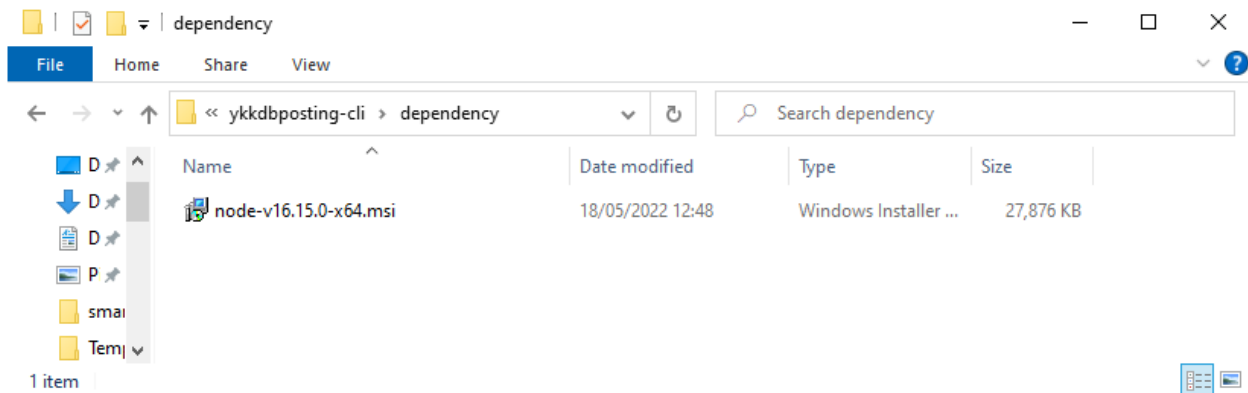
Install and Deployment

There are few packages that need to be installed before running the script.

1 Dependency

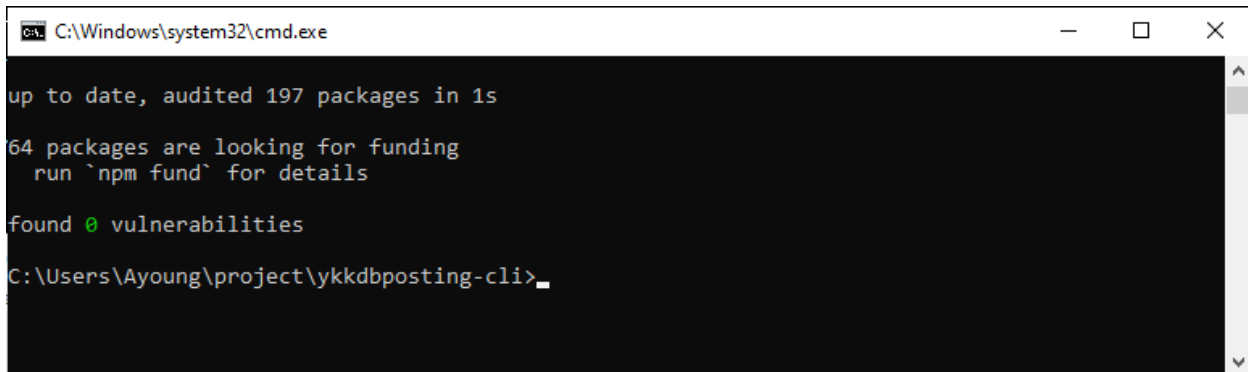
- Nodejs version : v16.15.0
- npm version: 8.5.5

Install Nodejs in the dependency folder.

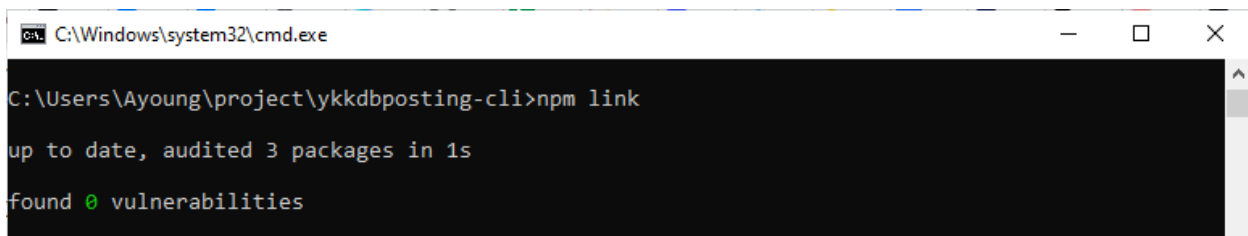


initial project by install dependency go to project directory enter the following command

npm install

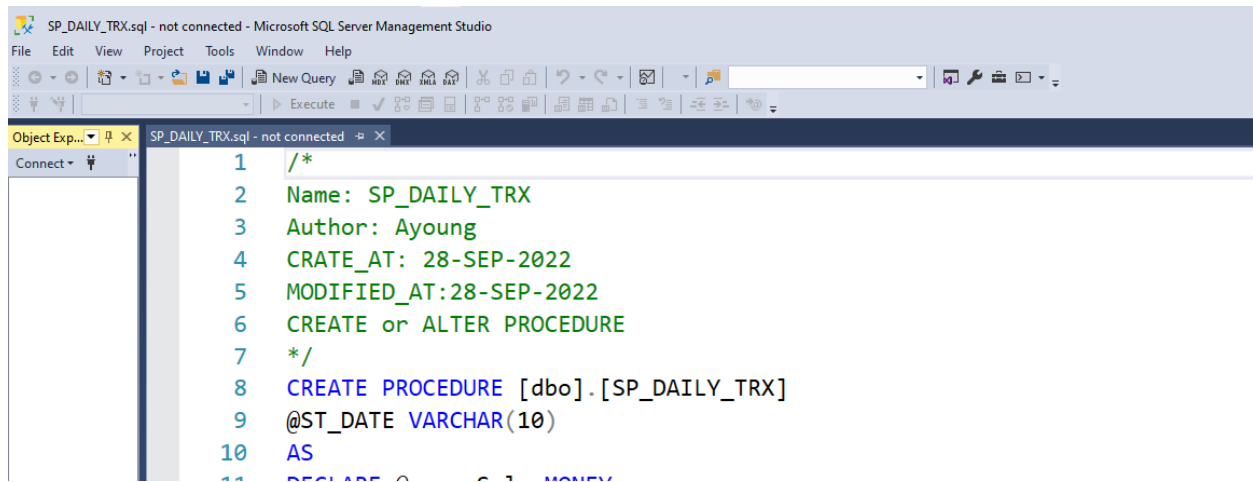


npm link



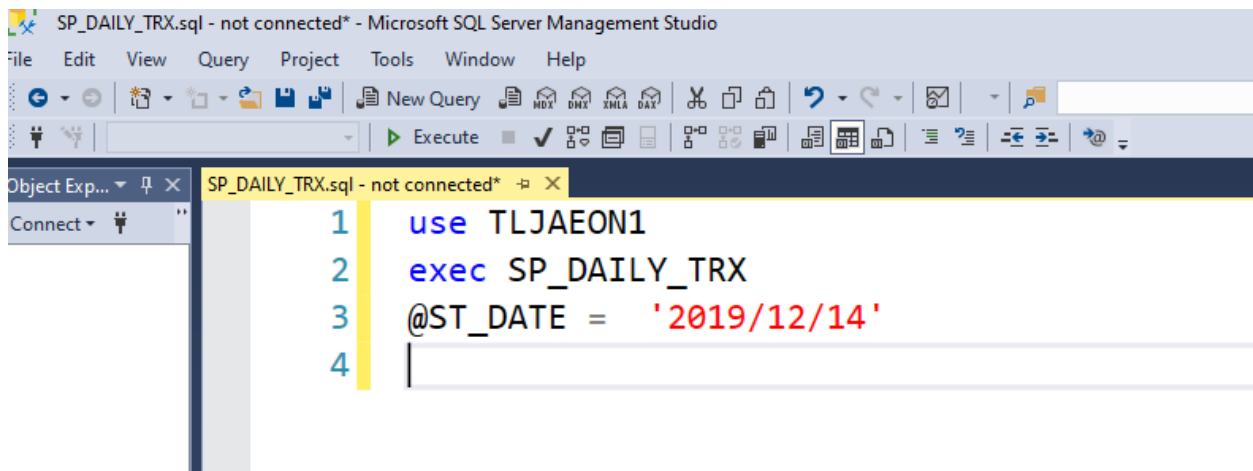
2 Deploy SP Script

Get SP_DAILY_TRX.sql and run on MSSQL server at each database that needs to post the transaction to API.



Test execute Procedure

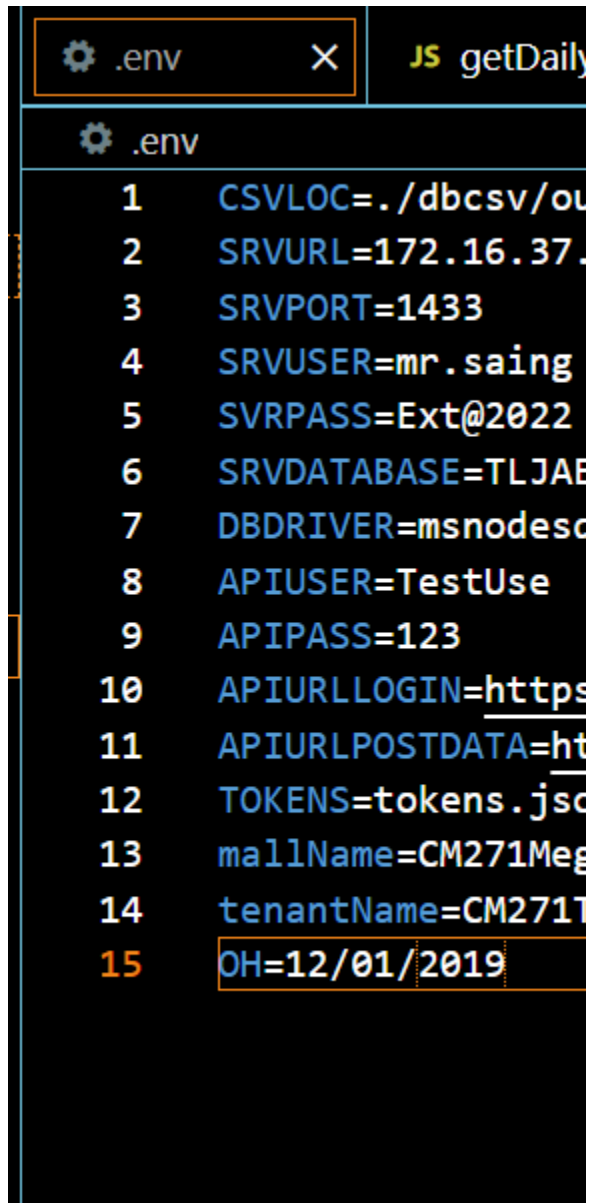
```
use TLJAEON1
exec SP_DAILY_TRX
@ST_DATE = '2019/12/14'
```



The result should display up on the completion of execution of above script.

3 Environment Configuration

go and edit .env file replace with actual environment configuration.

A screenshot of a code editor interface. At the top, there are two tabs: one labeled '.env' with a gear icon and a close button, and another labeled 'JS getDaily'. The '.env' tab is active, showing a list of environment variables. The variables are numbered 1 through 15 on the left. The values are: 1 CSVLOC=./dbcsv/ou, 2 SRVURL=172.16.37., 3 SRVPORT=1433, 4 SRVUSER=mr.saing, 5 SVRPASS=Ext@2022, 6 SRVDATABASE=TLJAB, 7 DBDRIVER=msnodesc, 8 APIUSER=TestUse, 9 APIPASS=123, 10 APIURLLOGIN=https, 11 APIURLPOSTDATA=ht, 12 TOKENS=tokens.js, 13 mallName=CM271Meg, 14 tenantName=CM271T, 15 OH=12/01/2019. The last line is highlighted with a yellow box.

```
.env
1 CSVLOC=./dbcsv/ou
2 SRVURL=172.16.37.
3 SRVPORT=1433
4 SRVUSER=mr.saing
5 SVRPASS=Ext@2022
6 SRVDATABASE=TLJAB
7 DBDRIVER=msnodesc
8 APIUSER=TestUse
9 APIPASS=123
10 APIURLLOGIN=https
11 APIURLPOSTDATA=ht
12 TOKENS=tokens.js
13 mallName=CM271Meg
14 tenantName=CM271T
15 OH=12/01/2019
```

4 Test From Command Line

Posting daily sale by: Store, Date, Mall Name, Tenant Name:

```
ykkdbposting-cli p TLJAEON1 2019-10-16 CM271MegaMall CM271TheAsianKitchen TAKCMM-P1
```

```
C:\Users\Ayoung\project\ykkdbposting-cli>ykkdbposting-cli p TLJAEON1 2019-10-16 CM271MegaMall CM271TheAsianKitchen TAKCMM-P1
Backup transaction ...
Data was copied to new destination
Pulling data from TLJAEON1 on Wed Oct 16 2019 07:00:00 GMT+0700 (Indochina Time) transaction ...
{
  grossSale: 1332.6,
  taxAmount: 121.1441,
  netSale: 1211.4409,
  cashAmountUsd: 629.525,
  cashAmountRiel: 2424600,
  creditCardAmount: 67.1,
  otherAmount: 29.825,
  totalCreditCardTransaction: 7,
  totalTransaction: 237,
  depositAmountUsd: 0,
  depositAmountRiel: 0,
  exchangeRate: 4000
}
Deserialize a database from file...
1332.60
Start login to API Server ...
Updating Access Token ...
Start posting data ...
Data insert successfully.
C:\Users\Ayoung\project\ykkdbposting-cli>
```


Showing Transaction by Store and Date.

```
ykkdbposting-cli s TLJAEON1 2019-12-13
```

```
C:\Windows\system32\cmd.exe
netSale: 4522381.93,
cashAmount: 1831300,
creditCardAmount: 0,
otherAmount: 3143400,
totalCreditCardTransaction: 0,
totalTransaction: 214,
depositAmountUsd: 1359.43,
depositAmountRiel: 4605300,
exchangeRate: 4000
}
Start posting data ...
Updating Access Token ...
401 Unauthorized undefined
C:\Users\Ayoung\project\ykkdbposting-cli>ykkdbposting-cli s TLJAEON1 2019-12-13
{
  grossSale: 4974700,
  taxAmount: 452238.23,
  netSale: 4522381.93,
  cashAmount: 1831300,
  creditCardAmount: 0,
  otherAmount: 3143400,
  totalCreditCardTransaction: 0,
  totalTransaction: 214,
  depositAmountUsd: 1359.43,
  depositAmountRiel: 4605300,
  exchangeRate: 4000
}
C:\Users\Ayoung\project\ykkdbposting-cli>
```

Running and Create New Script

1. script posting daily transaction

 ykdbposting.bat

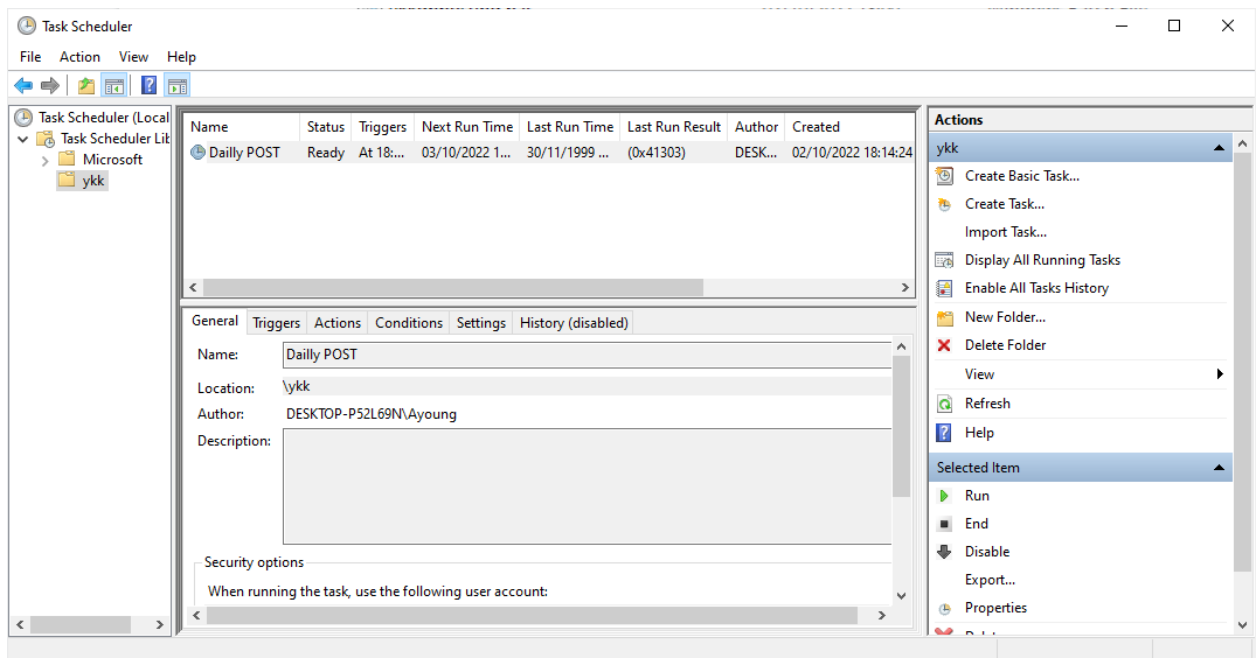
02/10/2022 18:00

Windows Batch File

Run batch file with Task Scheduler

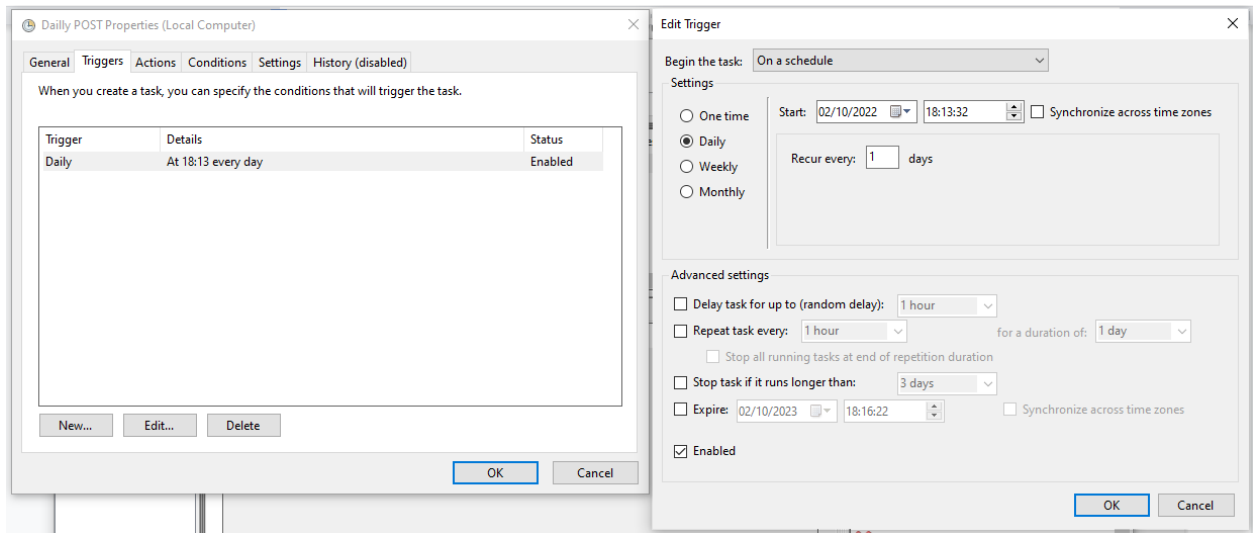
To use Task Scheduler to run the batch file automatically at a specific time, use these steps:

1. Open Start.
2. Search for Task Scheduler and click the top result to open the app.
3. Right-click the "Task Scheduler Library" branch and select the New Folder option.
4. Confirm a name for the folder — for example, ykkdbposting.bat.
 - **Quick note:** You don't need to create a folder, but keeping the system and your tasks separate is recommended.
5. Click the OK button.
6. Expand the "**Task Scheduler Library**" branch.
7. Right-click the project folder.
8. Select the Create Basic Task option.



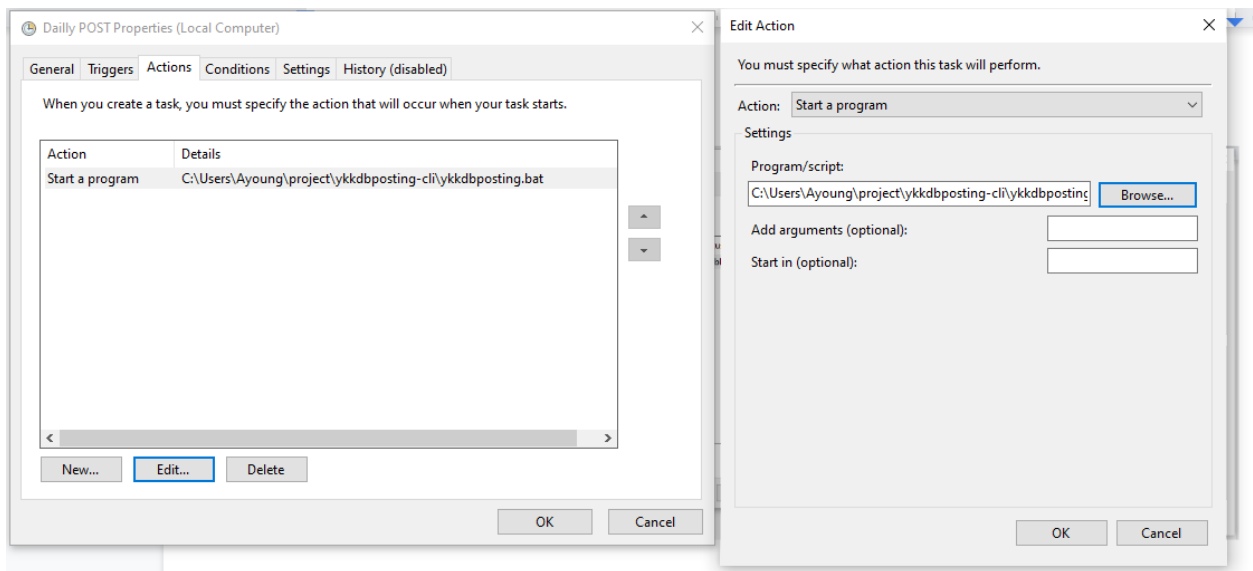
Add Trigger:

Choose Daily and starting time.



Add Action:

Add script into action.



Create New Script

To create a new script for new store just change the following parameter:

1. Store name
2. Transaction date
3. Mall name
4. Tenant name

Save in to a new bat extension file as bellow:

```
ykkdbposting.bat
1 @ECHO OFF
2
3 : Expects a date format of 'YYYY-MM-DD'
4 set dt=%DATE:~6,4%-~3,2%-~0,2%
5 set dt=%dt: =0%
6
7 echo Posting Current Date At: %dt%
8
9 @REM ykkdbposting-cli p STORE Name, Date, Mall Name, Tenant Name, Post Id
10 ykkdbposting-cli p TLJAEON1 %dt% CM271MegaMall CM271TheAsianKitchen PostID
```