# 트립코드 사용방법

**트립코드(스프링부트파일을실행 predict\_) 사용전 파일세팅**

**먼저 1.1 , 1,2 실행시켜 세팅**

**1.1 sql으로 파일의 순서대로 실행해주세요 (DB생성Oracle.sql을참고)**

코드실행}

DROP TABLE members;

DROP TABLE member\_plan;

DROP TABLE planservice;

DROP SEQUENCE member\_plan\_seq;

DROP SEQUENCE planservice\_seq;

DROP TABLE price; --이건 주식그래프를 위한거라 생략가능

CREATE TABLE EXRATE

(

RATE\_TIME VARCHAR2(100) NOT NULL,

USD NUMBER NOT NULL,

CNY NUMBER NOT NULL,

JPY NUMBER NOT NULL,

EURO NUMBER NOT NULL,

DOLLAR\_INDEX NUMBER NOT NULL

);

CREATE TABLE members

(

memberid VARCHAR2(100) PRIMARY KEY,

membername VARCHAR2(30) NOT NULL,

memberpwd VARCHAR2(100) NOT NULL,

phone VARCHAR2(100),

email VARCHAR2(100) NOT NULL,

enabled NUMBER DEFAULT 1 CHECK(enabled IN (1,0)),

rolename VARCHAR2(20) DEFAULT 'ROLE\_USER'

);

-- 주식그래프를 위한 테이블로 생략가능

CREATE TABLE price

(

datetime VARCHAR2(100) PRIMARY KEY,

close\_rate NUMBER NOT NULL,

open\_rate NUMBER NOT NULL ,

high\_rate NUMBER NOT NULL,

low\_rate NUMBER NOT NULL

);

CREATE TABLE member\_plan

(

memberid VARCHAR2(100) REFERENCES members(memberid) ON DELETE CASCADE,

planseq NUMBER PRIMARY KEY,

plantitle VARCHAR2(400) UNIQUE NOT NULL,

startdate DATE NOT NULL,

enddate DATE NOT NULL,

departure VARCHAR2(50) NOT NULL,

destination VARCHAR2(50) NOT NULL

);

CREATE SEQUENCE member\_plan\_seq;

CREATE TABLE planservice

(

planseq NUMBER REFERENCES member\_plan(planseq) ON DELETE CASCADE,

planservice\_seq NUMBER PRIMARY KEY,

daynum NUMBER NOT NULL,

placenum NUMBER NOT NULL,

placename VARCHAR2(500) NOT NULL,

placebudget NUMBER,

placeexpenditure number,

placememo VARCHAR2(1000),

lat NUMBER NOT NULL,

lng NUMBER NOT NULL

);

CREATE SEQUENCE planservice\_seq;

CREATE TABLE diary

(

planseq NUMBER REFERENCES member\_plan(planseq) ON DELETE CASCADE

, daynum NUMBER

, diary\_seq number PRIMARY KEY

, regdate DATE DEFAULT SYSDATE

, diary\_title VARCHAR2(100) NOT NULL

, diary\_text VARCHAR2(3000) NOT NULL

);

CREATE SEQUENCE diary\_seq;

**1.2) 실시간 환율크롤링을 위해 파이썬프로그램 실행(exRate\_크롤링.ipynb참고)**

코드실행)

import pandas as pd

import numpy as np

from bs4 import BeautifulSoup

from urllib.request import Request, urlopen

import requests

from datetime import datetime

from functools import reduce

**#DB연동 코드**

import cx\_Oracle as cx

conn = cx.connect("hr","hr","127.0.01:1521/XE") #DB연동

cur = conn.cursor()

cur.execute("select \* from employees") #sql 쿼리 작성

**#크롤링 코드**

# 원달러 크롤링 함수

def usd\_kwr():

url = Request('https://kr.investing.com/currencies/usd-krw', headers={'user-agent': 'Mozilla/5.0 (Windows NT 11.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/109.0.5414.76 Safari/537.36 NetHelper70'})

bs = BeautifulSoup(urlopen(url), 'html.parser')

usd\_kwr= float(bs.select\_one('#\_\_next > div.desktop\:relative.desktop\:bg-background-default > div > div > div.grid.gap-4.tablet\:gap-6.grid-cols-4.tablet\:grid-cols-8.desktop\:grid-cols-12.grid-container--fixed-desktop.general-layout\_main\_\_LHpKS > main > div > div.instrument-header\_instrument-header\_\_i63mN.mb-5.bg-background-surface.tablet\:grid.tablet\:grid-cols-2 > div:nth-child(2) > div.instrument-price\_instrument-price\_\_2w9MW.flex.items-end.flex-wrap.font-bold > span').text.replace(',',''))

return usd\_kwr

**# 달러지수 크롤링 함수**

def dollar\_index():

url = Request('https://kr.investing.com/currencies/us-dollar-index', headers={'user-agent': 'Mozilla/5.0 (Windows NT 11.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/109.0.5414.76 Safari/537.36 NetHelper70'})

bs = BeautifulSoup(urlopen(url), 'html.parser')

dollar\_index = float(bs.select\_one('#last\_last').text.replace(',',''))

return dollar\_index

**# 위안화 크롤링 함수**

def cny\_krw():

url = Request('https://kr.investing.com/currencies/cny-krw', headers={'user-agent': 'Mozilla/5.0 (Windows NT 11.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/109.0.5414.76 Safari/537.36 NetHelper70'})

bs = BeautifulSoup(urlopen(url), 'html.parser')

cny\_krw = float(bs.select\_one('#\_\_next > div.desktop\:relative.desktop\:bg-background-default > div > div > div.grid.gap-4.tablet\:gap-6.grid-cols-4.tablet\:grid-cols-8.desktop\:grid-cols-12.grid-container--fixed-desktop.general-layout\_main\_\_LHpKS > main > div > div.instrument-header\_instrument-header\_\_i63mN.mb-5.bg-background-surface.tablet\:grid.tablet\:grid-cols-2 > div:nth-child(2) > div.instrument-price\_instrument-price\_\_2w9MW.flex.items-end.flex-wrap.font-bold > span').text.replace(',',''))

return cny\_krw

**# 유로화 크롤링 함수**

def eur\_krw():

url = Request('https://kr.investing.com/currencies/eur-krw', headers={'user-agent': 'Mozilla/5.0 (Windows NT 11.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/109.0.5414.76 Safari/537.36 NetHelper70'})

bs = BeautifulSoup(urlopen(url), 'html.parser')

eur\_krw = float(bs.select\_one('#\_\_next > div.desktop\:relative.desktop\:bg-background-default > div > div > div.grid.gap-4.tablet\:gap-6.grid-cols-4.tablet\:grid-cols-8.desktop\:grid-cols-12.grid-container--fixed-desktop.general-layout\_main\_\_LHpKS > main > div > div.instrument-header\_instrument-header\_\_i63mN.mb-5.bg-background-surface.tablet\:grid.tablet\:grid-cols-2 > div:nth-child(2) > div.instrument-price\_instrument-price\_\_2w9MW.flex.items-end.flex-wrap.font-bold > span').text.replace(',',''))

return eur\_krw

**# 엔화 크롤링 함수**

def jpy\_krw():

url = Request('https://kr.investing.com/currencies/jpy-krw', headers={'user-agent': 'Mozilla/5.0 (Windows NT 11.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/109.0.5414.76 Safari/537.36 NetHelper70'})

bs = BeautifulSoup(urlopen(url), 'html.parser')

jpy\_krw = float(bs.select\_one('#\_\_next > div.desktop\:relative.desktop\:bg-background-default > div > div > div.grid.gap-4.tablet\:gap-6.grid-cols-4.tablet\:grid-cols-8.desktop\:grid-cols-12.grid-container--fixed-desktop.general-layout\_main\_\_LHpKS > main > div > div.instrument-header\_instrument-header\_\_i63mN.mb-5.bg-background-surface.tablet\:grid.tablet\:grid-cols-2 > div:nth-child(2) > div.instrument-price\_instrument-price\_\_2w9MW.flex.items-end.flex-wrap.font-bold > span').text.replace(',',''))

return jpy\_krw

**# 모든 크롤링 실행함수**

def job():

dollar\_index\_time, kospi\_200\_time, spx\_500\_time = '00:00:00','00:00:00','00:00:00'

usd\_kwr, dollar\_index, kospi\_200,spx\_500 = '0','0','0','0'

return usd\_kwr(), dollar\_index(), cny\_krw(), eur\_krw(), jpy\_krw()

**# 크롤링 실행후 DB저장 함수**

import urllib.error

import urllib.request

import time

from datetime import datetime

while True:

try:

current\_time = datetime.now()

usd\_kwr\_value, dollar\_index\_value, cny\_krw\_value, eur\_krw\_value, jpy\_krw\_value = job()

cur.execute("INSERT INTO EXRate (rate\_time, usd, cny, jpy, euro, dollar\_index) VALUES "

"(:rate\_time, :usd, :cny, :jpy, :euro, :dollar\_index)",

{'rate\_time': str(current\_time)[:17] + '00',

'usd': usd\_kwr\_value,

'cny': cny\_krw\_value,

'jpy': jpy\_krw\_value,

'euro': eur\_krw\_value,

'dollar\_index': dollar\_index\_value})

cur.execute("commit")

except Exception as e:

# Catch any exceptions that might occur during the job() function or database operations.

# Instead of handling the exception here, we just pass over it silently.

pass

finally:

time.sleep(55)

**# 주의할점 크롤링은 인베스팅닷컴에서 실시중이며 인베스팅 닷컴에소스가 바뀌면 실행이안될수 있으니 확인해주세요**

**#만일 크롤링이 되지않을시 다음과 같이 DB에 임의로 EXRATE 테이블에 행을 삽입해주세요**

예시 )

select \* from exrate order by rate\_time desc;

insert into exrate

(rate\_time, usd, cny, jpy, euro, dollar\_index)

values

('2023-07-19 13:43:01', 1265.17, 175.48, 9.0777, 1419.82,99.74)

;

commit;

insert into exrate

(rate\_time, usd, cny, jpy, euro, dollar\_index)

values

('2023-07-19 13:43:02', 1265.00, 175.45, 9.0, 1419.0,99.1)

;

commit;

insert into exrate

(rate\_time, usd, cny, jpy, euro, dollar\_index)

values

('2023-07-19 13:43:03', 1265.04, 175.9, 9.8, 1419.22,99.3)

;

commit;

insert into exrate

(rate\_time, usd, cny, jpy, euro, dollar\_index)

values

('2023-07-19 13:43:04', 1265.57, 174.9, 9.9, 1420.22,99.4)

;

commit;

insert into exrate

(rate\_time, usd, cny, jpy, euro, dollar\_index)

values

('2023-07-19 13:43:05', 1265.99, 176.9, 10.2, 1414.23,99.2)

;

commit;

**# 트립코드 실행후**

# 주의 할점 카카오 api이용시 브라우저 위치 제공 동의를 해야됩니다.