#!/usr/bin/env python3

# -\*- coding: utf-8 -\*-

# @Author : Yi(Joy) Zeng

# DO IT AFTER YOU GET THE fdroid\_github.csv

import sys

sys.path.append('../')

import csv

from pathlib import Path

from logdetector import database

from logdetector.utils import shellhelper

from logdetector import config

from logdetector import github

from logdetector.models import Repo

from logdetector.utils import filehelper

def initialize\_repo\_database():

    database.create\_tables()

def get\_local\_project\_ids(local\_projects\_dir):

    path = Path(local\_projects\_dir)

    projects = [str(x.relative\_to(local\_projects\_dir)) for x in path.iterdir() if x.is\_dir()]

    local\_project\_ids = [x for x in projects if '.' in x]

    return local\_project\_ids

def get\_fdroid\_repos(path: str):

    csv\_repos = {}

    p = Path(path)

    with p.open(encoding='utf-8') as f:

        next(f)

        reader = csv.reader(f)

        for row in reader:

            csv\_repos[row[1]] = row

    return csv\_repos

def save\_repos\_to\_db(csv\_path: str):

    csv\_repos = get\_fdroid\_repos(csv\_path)

    git\_clone\_fdroid\_repos(csv\_repos)

    local\_project\_ids = get\_local\_project\_ids(config.FDROID\_PROJECT\_PATH)

    for local\_app\_id in local\_project\_ids:

        csv\_repo = csv\_repos.get(local\_app\_id)

        if csv\_repo is not None:

            app\_url = csv\_repo[0]

            app\_id = csv\_repo[1]

            app\_name = csv\_repo[2]

            repo = database.get\_repo\_with\_url(app\_url)

            if repo is None:

                Repo.create(url=app\_url, app\_id=app\_id, name=app\_name)

            else:

                repo.app\_id = app\_id

                repo.name = app\_name

                repo.save()

def git\_clone\_fdroid\_repos(csv\_repos: dict):

    for app\_id, app in csv\_repos.items():

        app\_url = app[0]

        repo\_path = config.get\_repo\_local\_path\_with\_app\_id(app\_id)

        if app\_url not in config.REPO\_URL\_BLACK\_LIST and\

                not filehelper.is\_file\_exists(repo\_path) and\

                github.is\_java\_project(app\_url):

            # git clone projects which are not in black list, not exist in local, and contain Java code

            shellhelper.run("git clone {} '{}'".format(app\_url, repo\_path))

if \_\_name\_\_ == '\_\_main\_\_':

    initialize\_repo\_database()

    fdroid\_csv\_path = '../data/fdroid\_github.csv'

    save\_repos\_to\_db(fdroid\_csv\_path)