

- download (downloader.py):
 - python3 downloader.py
 - 用来下载指定的 app
 - 加入了 csv 读取功能，把 pkg_name_date.csv 放在文件夹里就可以读取了，然后程序里面可以选定读哪几行，也就是下载哪几个 apk
 - 东西下载到 gp_download 文件夹里去的

```
if __name__ == "__main__":

    csv_file = "pkg_name_date.csv"

    pkg_list = []

    with open(csv_file, 'r') as file:
        csv_reader = csv.reader(file)
        next(csv_reader)
        for row in csv_reader:
            if row:
                pkg_list.append(row[0])

    apk_list = pkg_list[:5]
    for apk in apk_list:
        try:
            print("-----")
            folder = "./gp_download"
            download_path = os.path.join(folder, apk + ".apk")
            download(download_path, apk)

        except:
            print("FAILED!!!!!!!!!!!!!!!!!!!!!! APK N/A")
            print("-----")
```

- 增加了记录下载情况的 dictionary，同时在 execution 的最后，会把这个 dictionary 作为 download_status.json 文件 output 出来
 - 一个 package name 跟随着一个 String, Successful 代表成功下载，Failed 代表下载失败，Not Attempted 代表还没有被尝试下载

```

1  {
2  "com.ujuzinet.mazaohub": "Successful",
3  "com.hiscox.floodplusar": "Failed",
4  "com.bipper.app.bsafe": "Successful",
5  "com.ambinode.app": "Successful",
6  "com.goder.busquerysystemhkb": "Successful",
7  "com.ChapsApps.DucksNFrogs": "Successful",
8  "vn.fappy.camera.ai.selfie": "Successful",
9  "com.blippar.ar.android": "Successful",
10 "com.xplorazzi.xperinz": "Successful",
11 "com.appbox.photomath": "Successful",
12 "com.cryptotrade": "Successful",
13 "net.ibada.anywhere": "Successful",
14 "automatic.subtitles.closed.captions.generator.videos.transcribe.and.edit": "Successful",
15 "com.ara.striking": "Successful",
16 "hk.edu.cuhk.sls.atp": "Failed",
17 "dhsolutions.mastermind": "Not Attempted",
18 "com.focalpointk12": "Not Attempted",
19 "com.frenchtranslator.englishtraduction.traductionanglaisfrancais": "Not Attempted",
20 "com.longevityai.longevityprediction": "Not Attempted",
21 "all.language.translator.hub.khmertothaitranslator": "Not Attempted",
22 "com.Faizal.AlbeRt": "Not Attempted",
23 "co.vispera.shark.blue": "Not Attempted",
24 "com.goder.busquerysystemnearby": "Not Attempted",
25 "aigirlfriend.huggingface": "Not Attempted",
26 "com.dkartik.voicetying": "Not Attempted",
27 "com.hdphoto.photoshoot.enhance.image.hdr.ai": "Not Attempted",
28 "com.mnemonic1000": "Not Attempted",
29 "com.gg.faceLock.animation.live.wallpaper.app": "Not Attempted",
30 "com.xidau.translator": "Not Attempted",
31 "com.edugorilla.eebypcet": "Not Attempted",
32 "xyz.circular.circular": "Not Attempted",
33 "all.language.translator.hub.irishtorussiantranslator": "Not Attempted",
34 "com.shoryakumar.doubtsolver": "Not Attempted",
35 "com.appnamenu.mischeduler": "Not Attempted",
36 "com.futuresoft.hindware": "Not Attempted",
37 "com.sooyoung.tballteach": "Not Attempted",
38 "textsummary.ai": "Not Attempted",

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- - decompile (jadx_runner.py)
 - python3 jadx_runner.py
 - 完成了只 decompile main APKs 的功能
 - apk 解压后到 gp_download 中对应的 app 文件夹中
 - 算 multiple APK 的 percentage (mulAPK_calculator.py)
 - python3 mulAPK_calculator.py
 - 分析下载下来的多个 APK 里面有无特殊 APK (special_apks_finder.py)
 - filter 出不是 main APK，并且名字不是以 config 开头的 APK
 - python3 special_apks_finder.py