1.
2.
3.
4.

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1.   ,   (,   )   DB   .
2.   OpenCV   .

Dot

CourseSuggester, DotRGB, DotAddress

1.   OpenCV   RGB
DotRGB   .
2.   DotAddress
        .
3.   DotRGB   DotAddress   .

        CCTV   DB
                        CCTV   .

                        OpenCV
https://brunch.co.kr/@mystoryg/76
OpenCV

https://hyesunzzang.tistory.com/39

OpenCV

https://stackoverflow.com/questions/14072761/how-to-read-value-of-the-each-pixel-as-rgb-values-from-mat-object-m-in-opencv/14339002

https://developer.android.com/training/data-storage/room?hl=ko#java

DB

https://developer.android.com/training/data-storage/room/prepopulate?hl=ko

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https://www.juso.go.kr/addrlink/addressBuildDevNew.do?menu=geodata

CCTV

https://www.localdata.go.kr/lif/lifeCtacDataView.do?opnEtcSvcId=12_04_08_E

https://www.data.go.kr/data/15017320/standard.do

https://www.data.go.kr/data/15028201/standard.do

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UI

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MapDrawer

drawCourse :
drawUserPath :
drawUserLogPath :

GuideSounder

NaverMapDrawer
MapDrawer

NaverMapDrawer
1. API

OpenAPI   ncloud   API
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1.1 [Open API   (🆇   ) -   (naver.com)]

1.2 [CLOUD PLATFORM   (ncloud.com)] (API   )

2.   Activity   .
2.2 [·   SDK (navermaps.github.io)]

MapDrawer   SDK   [   ]

[·   SDK (navermaps.github.io)]   .

CourseOversighter

NaverMapDrawer   MapDrawer

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1.   GPS   .
2.   .
                              (GPS)

                                      DB   .

MapDTO, CourseDTO, ExerciseDTO

MapDAO, CourseDAO, ExerciseDAO
DB   ,   ,
ExerciseAnalyzer
DAO   DB   .

          DB
              :   ,   ,   ,   (,   ,   )
      :   ,
              :   ,   ,   ,   ,   ,   ,

https://developer.android.com/training/data-storage/room?hl=ko#java

(UI)

FireBase

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0.

https://firebase.google.com/docs/android/setup?hl=ko

1.

https://firebase.google.com/docs/auth/android/firebaseui?hl=ko

2.

https://firebase.google.com/docs/database/android/start?hl=ko