User data analysis: special issue of “Personal Data Market”

1. map from google play perm\_id into google default perm\_id
   1. save txt/permission\_table.xlsx $ perm\_jian table into txt file with name “perm\_jian\_input.txt”
   2. cm\_perm\_map.py: p\_map\_import(), perm\_map\_import()
2. get apps details:
   1. cm\_perm\_fact.py: perms\_fact\_perms\_map(), perms\_fact\_awards(), perms\_Fact\_apps(),
   2. cm\_contacts.py: contact\_videos(), contact\_share()
   3. cm\_util.py: categories\_get()
3. print out results:
   1. filter out apps: developer key is not null, perms key is not null, installs is less than 5, rating\_average is not 0, rating\_total is not 0
   2. save txt/permission\_table.xlsx$use\_data\_analysis table into txt file with name “user\_data\_analysis\_import\_txt”.
   3. output data filed:
      1. is\_theme\_app: 0=not theme, 1=theme\_keywords in app\_id, 2= theme\_keywords in app\_title, 3 = theme\_keywords in app\_desc
      2. award\_editor, award\_developer
      3. rating, install, price, developer
4. node graph diagram:
   1. map from permission to data type