import codecademylib

import pandas as pd

#1

ad\_clicks = pd.read\_csv('ad\_clicks.csv')

print(ad\_clicks.head())

#2

most\_views = ad\_clicks.groupby('utm\_source').user\_id.count().reset\_index()

print(most\_views)

#3

ad\_clicks['is\_click'] = ~ad\_clicks\

.ad\_click\_timestamp.isnull()

print(ad\_clicks)

#4

clicks\_by\_source = ad\_clicks.groupby(['utm\_source', 'is\_click']).user\_id.count().reset\_index()

print(clicks\_by\_source)

#5

clicks\_pivot = clicks\_by\_source.pivot(

columns='is\_click',

index='utm\_source',

values='user\_id'

).reset\_index()

print(clicks\_pivot)

#6

clicks\_pivot['percent\_clicked'] = clicks\_pivot[True] / (clicks\_pivot[True] + clicks\_pivot[False])\*100

print(clicks\_pivot)

#7

count = ad\_clicks.groupby('experimental\_group').user\_id.count()

print(count)

#8

experiment = ad\_clicks.groupby(['experimental\_group', 'is\_click']).user\_id.count().reset\_index()

experiment\_pivot = experiment.pivot(

columns='is\_click',

index='experimental\_group',

values='user\_id'

)

experiment\_pivot['percent\_click'] = experiment\_pivot[True] / (experiment\_pivot[True] + experiment\_pivot[False])\*100

print(experiment\_pivot)

#9

a\_clicks = ad\_clicks[ad\_clicks.experimental\_group == 'A']

print(a\_clicks)

b\_clicks = ad\_clicks[ad\_clicks.experimental\_group == 'B']

print(b\_clicks)

#10

a\_clicks\_day = a\_clicks.groupby(['is\_click', 'day']).user\_id.count().reset\_index()

print(a\_clicks\_day)

b\_clicks\_day = b\_clicks.groupby(['is\_click', 'day']).user\_id.count().reset\_index()

print(b\_clicks\_day)

a\_clicks\_day\_pivot = a\_clicks\_day.pivot(

columns='is\_click',

index='day',

values='user\_id'

).reset\_index()

print(a\_clicks\_day\_pivot)

b\_clicks\_day\_pivot = b\_clicks\_day.pivot(

columns='is\_click',

index='day',

values='user\_id'

).reset\_index()

print(b\_clicks\_day\_pivot)

a\_clicks\_day\_pivot['percent\_click'] = a\_clicks\_day\_pivot[True] / (a\_clicks\_day\_pivot[True] + a\_clicks\_day\_pivot[False])\*100

print(a\_clicks\_day\_pivot)

b\_clicks\_day\_pivot['percent\_click'] = b\_clicks\_day\_pivot[True] / (b\_clicks\_day\_pivot[True] + b\_clicks\_day\_pivot[False])\*100

print(b\_clicks\_day\_pivot)