Question 15 : clé primaire = code pays

```
Entrée [218]:
pop_df = pop_df[['Code zone', 'Zone', 'Année', 'Valeur']]
pop_df.rename(columns={'Code zone' : 'code_pays', 'Zone' : 'pays', 'Année' : 'annee', 'Vale
Entrée [219]:
chine_pop = pop_df[pop_df['pays'] == 'Chine']
Entrée [220]:
index chine pop = chine pop.index
Entrée [221]:
pop df.drop(index chine pop, inplace=True)
Entrée [222]:
pop df.to csv("population.csv", index=False)
Question 16 : clé primaire = code pays+code produit
Entrée [223]:
data_pivot['Disponibilité alimentaire en tonnes'] = data_pivot['Disponibilité alimentaire e
Entrée [224]:
data pivot.rename(columns={'Zone' : 'pays', 'Code zone' : 'code_pays', 'Produit' : 'produit'
                        'Autres utilisations (non alimentaire)' : 'autres_utilisations',
                        'Disponibilité alimentaire (Kcal/personne/jour)' : 'dispo alim kcal
                        'Disponibilité alimentaire en tonnes' : 'dispo_alim_tonnes',
                        'Disponibilité de matière grasse en quantité (g/personne/jour)' :
                        'Disponibilité de protéines en quantité (g/personne/jour)' : 'dispo
                        'Disponibilité intérieure' : 'dispo_int', 'Nourriture' : 'nourritur
                        'Pertes': 'pertes', 'Semences': 'semences', 'Traitement': 'trans
Entrée [225]:
```

```
q16_df = data_pivot[['code_pays', 'pays', 'produit', 'code_produit', 'origin', 'dispo_alim_
```

Entrée [226]:

```
q16_df['id'] = q16_df.code_pays.astype(str) + '_' + q16_df.code_produit.astype(str)
<ipython-input-226-402467dab23d>:1: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/
stable/user guide/indexing.html#returning-a-view-versus-a-copy (https://pand
as.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-v
ersus-a-copy)
  q16_df['id'] = q16_df.code_pays.astype(str) + '_' + q16_df.code_produit.as
type(str)
Entrée [227]:
q16_df.to_csv("dispo_alim.csv", index=False)
Question 17 : clé primaire = code pays+code produit
Entrée [228]:
q17_df = data_pivot[['code_pays', 'pays', 'code_produit', 'produit', 'dispo_int', 'alim_ani
Entrée [229]:
q17_df['id'] = q17_df['code_pays'].astype(str) + '_' + q17_df['code_produit'].astype(str)
<ipython-input-229-e27aadd4ddb0>:1: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/
stable/user_guide/indexing.html#returning-a-view-versus-a-copy (https://pand
as.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-v
ersus-a-copy)
 q17_df['id'] = q17_df['code_pays'].astype(str) + '_' + q17_df['code_produi
t'].astype(str)
Entrée [230]:
q17_df.to_csv("equilibre_prod.csv", index=False)
Question 18 : clé primaire = code pays
Entrée [231]:
q18 df = sous alim 2013[['Code zone', 'Zone', 'Valeur']]
```

```
Entrée [232]:
```

```
q18_df.rename(columns={'Code zone' : 'code_pays', 'Zone' : 'pays', 'Valeur' : 'nb_personnes
C:\Users\denis\anaconda3\lib\site-packages\pandas\core\frame.py:4441: Settin
gWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/
stable/user guide/indexing.html#returning-a-view-versus-a-copy (https://pand
as.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-v
ersus-a-copy)
  return super().rename(
Entrée [233]:
q18 df['annee'] = '2013'
q18 df['nb personnes'] = q18 df['nb personnes'] * 10**6
<ipython-input-233-9a43056ae5bf>:1: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row indexer,col indexer] = value instead
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/
stable/user_guide/indexing.html#returning-a-view-versus-a-copy (https://pand
as.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-v
ersus-a-copy)
  q18 df['annee'] = '2013'
<ipython-input-233-9a43056ae5bf>:2: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/
stable/user guide/indexing.html#returning-a-view-versus-a-copy (https://pand
as.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-v
ersus-a-copy)
  q18_df['nb_personnes'] = q18_df['nb_personnes'] * 10**6
Entrée [234]:
chine_18 = q18_df[q18_df.pays == 'Chine']
Entrée [235]:
index_chine_18 = chine_18.index
```

Entrée [236]:

```
q18_df.drop(index_chine_18, inplace=True)
```

C:\Users\denis\anaconda3\lib\site-packages\pandas\core\frame.py:4308: Settin
gWithCopyWarning:

A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy (https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy)

return super().drop(

Entrée [237]:

q18_df.to_csv("sous_nutrition.csv", index=False)