Analysis of the Constitutional Council's decisions

HERRMANN
RENARD

METHODOLOGY

Loop over 342 pages

This Python loop iterates through the 342 pages of the static site belonging to the Constitutional Council. Each page contains 20 decisions.

Collection of decision details

Within this loop, various functions are employed to extract information pertaining to each decision :

- Year
- Type
- Solution
- Presiding judge
- Length

Dataframe creation

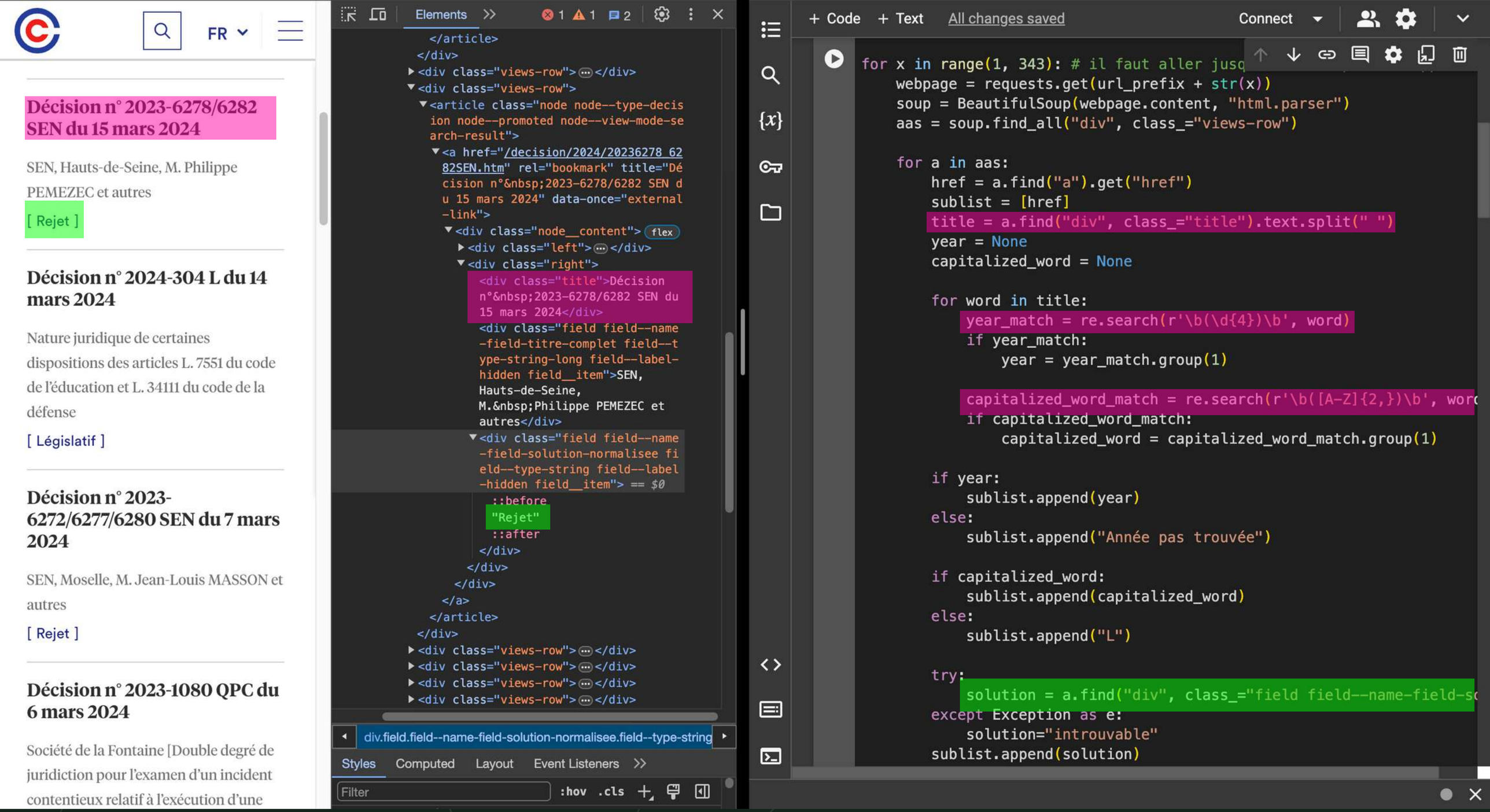
The extracted information is subsequently transformed into a pandas DataFrame named "constitdf," which is then written to a CSV file.

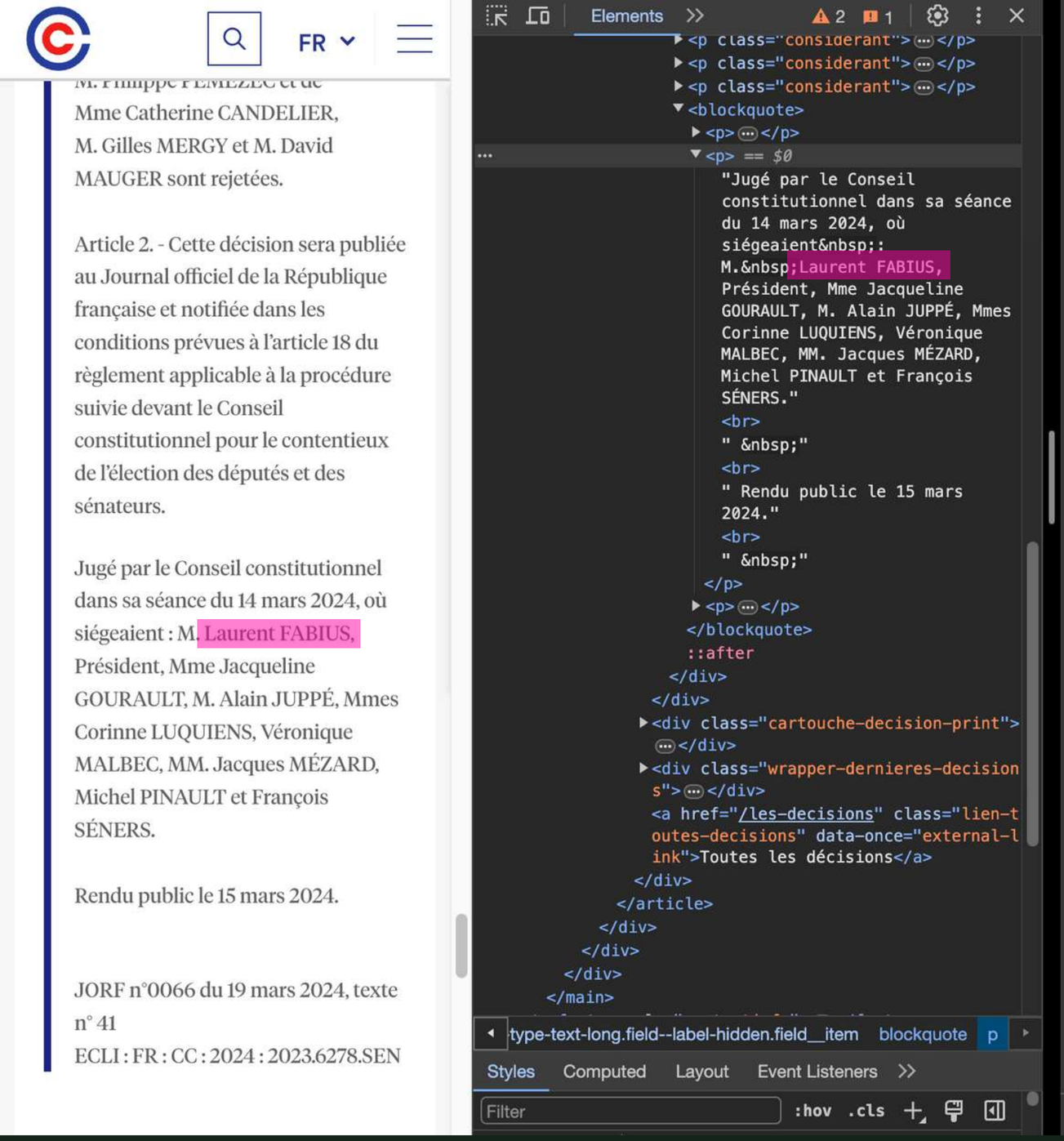
Graphical analysis

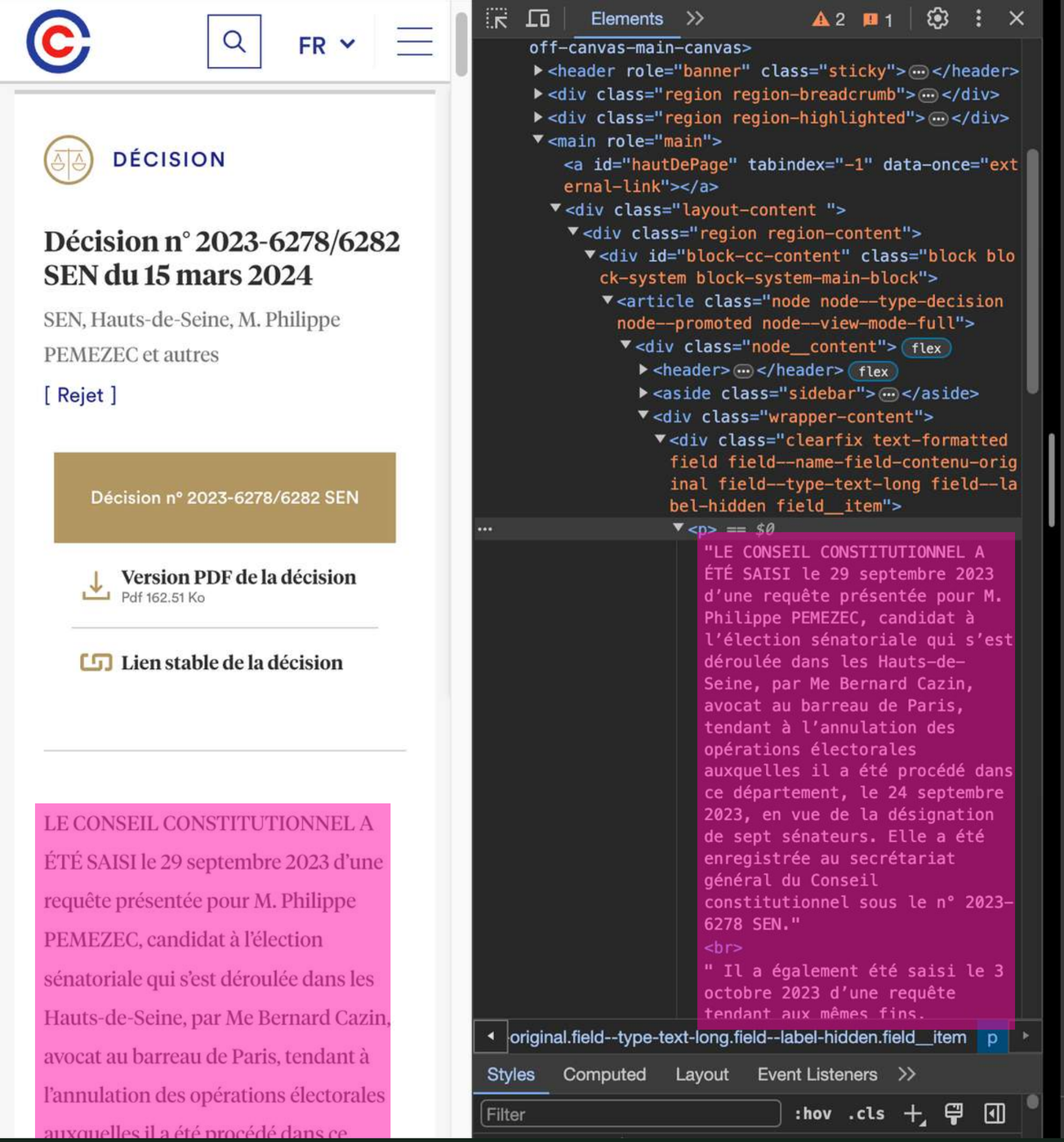
The transformed information, now in CSV format, is then analyzed using various graphs.

FOCUS I :
CREATION OF THE DATAFRAME

1. Year, type and solution
2. Presiding judge
3. Length of decision


FR
Décision n° 2023-6278/6282 SEN du 15 mars 2024
SEN, Hauts-de-Seine, M. Philippe PEMEZEC et autres
[Rejet]
Décision n° 2024-304 L du 14 mars 2024
Nature juridique de certaines dispositions des articles L. 7551 du code de l'éducation et L. 34111 du code de la défense
[Législatif]
Décision n° 2023-6272/6277/6280 SEN du 7 mars 2024
SEN, Moselle, M. Jean-Louis MASSON et autres
[Rejet]
Décision n° 2023-1080 QPC du 6 mars 2024
Société de la Fontaine [Double degré de juridiction pour l'examen d'un incident contentieux relatif à l'exécution d'une
Elements
Décision n° 2023-6278/6282 SEN du 15 mars 2024
SEN, Hauts-de-Seine, M. Philippe PEMEZEC et autres
 == $0
::before
"Rejet"
::after
div.field.field--name-field-solution-normalisee.field--type-string
Styles
Computed
Layout
Event Listeners
Filter
:hov .cls
+ Code
+ Text
All changes saved
Connect
for x in range(1, 343): # il faut aller jusq
webpage = requests.get(url_prefix + str(x))
soup = BeautifulSoup(webpage.content, "html.parser")
aas = soup.find_all("div", class_="views-row")
for a in aas:
href = a.find("a").get("href")
sublist = [href]
title = a.find("div", class_="title").text.split(" ")
year = None
capitalized_word = None
for word in title:
year_match = re.search(r'\b(\d{4})\b', word)
if year_match:
year = year_match.group(1)
capitalized_word_match = re.search(r'\b([A-Z]{2,})\b', word
if capitalized_word_match:
capitalized_word = capitalized_word_match.group(1)
if year:
sublist.append(year)
else:
sublist.append("Année pas trouvée")
if capitalized_word:
sublist.append(capitalized_word)
else:
sublist.append("L")
try:
solution = a.find("div", class_="field field--name-field-s
except Exception as e:
solution="introuvable"
sublist.append(solution)


FR
Mme Catherine CANDELIER,
M. Gilles MERGY et M. David
MAUGER sont rejetées.
Article 2. - Cette décision sera publiée au Journal officiel de la République française et notifiée dans les conditions prévues à l'article 18 du règlement applicable à la procédure suivie devant le Conseil constitutionnel pour le contentieux de l'élection des députés et des sénateurs.
Jugé par le Conseil constitutionnel dans sa séance du 14 mars 2024, où siégeaient : M. Laurent FABIUS, Président, Mme Jacqueline GOURAULT, M. Alain JUPPÉ, Mmes Corinne LUQUIENS, Véronique MALBEC, MM. Jacques MÉZARD, Michel PINAULT et François SÉNERS.
Rendu public le 15 mars 2024.
JORF n°0066 du 19 mars 2024, texte n° 41
ECLI : FR : CC : 2024 : 2023.6278.SEN
Elements
"Jugé par le Conseil constitutionnel dans sa séance du 14 mars 2024, où siégeaient : M. Laurent FABIUS, Président, Mme Jacqueline GOURAULT, M. Alain JUPPÉ, Mmes Corinne LUQUIENS, Véronique MALBEC, MM. Jacques MÉZARD, Michel PINAULT et François SÉNERS."
" Rendu public le 15 mars 2024."
Styles
Computed
Layout
Event Listeners
Filter
+ Code
+ Text
All changes saved
Connect
import pandas as pd
import time
import matplotlib.pyplot as plt
def extract_judge_name(decision_url):
response = requests.get(decision_url)
if response.status_code == 200:
soup = BeautifulSoup(response.content, 'html.parser')
blockquote_tag = soup.find('blockquote').text.strip()
match = re.search(r'par le Conseil constitutionnel.*?([A-Z]{4,})',
if match:
judge_name = match.group(1)
if judge_name == "DEBR":
judge_name += "É"
return judge_name
else:
return "Le nom du juge n'a pas été mentionné dans la décision.
else:
print("La décision n'a pas pu être récupérée")
return None
url_prefix = "https://www.conseil-constitutionnel.fr/les-decisions?cc-page
main_list = []
for x in range(1, 343): # il faut aller jusqu'à 343 et pas 342 apparemment
webpage = requests.get(url_prefix + str(x))
soup = BeautifulSoup(webpage.content, "html.parser")
aas = soup.find_all("div", class_="views-row")
for a in aas:
href = a.find("a").get("href")
sublist = [href]
title = a.find("div", class_="title").text.split(" ")
year = None
capitalized_word = None


FR
DÉCISION
Décision n° 2023-6278/6282 SEN du 15 mars 2024
SEN, Hauts-de-Seine, M. Philippe PEMEZEC et autres
[Rejet]
Décision n° 2023-6278/6282 SEN
Version PDF de la décision
Pdf 162.51 Ko
Lien stable de la décision
LE CONSEIL CONSTITUTIONNEL A ÉTÉ SAISI le 29 septembre 2023 d'une requête présentée pour M. Philippe PEMEZEC, candidat à l'élection sénatoriale qui s'est déroulée dans les Hauts-de-Seine, par Me Bernard Cazin, avocat au barreau de Paris, tendant à l'annulation des opérations électorales auxquelles il a été procédé dans ce

Elements
off-canvas-main-canvas>
<header role="banner" class="sticky">…</header>
…
…
<main role="main">

<article class="node node--type-decision node--promoted node--view-mode-full">

flex
<header>…</header>
flex
<aside class="sidebar">…</aside>

<p> == $0
"LE CONSEIL CONSTITUTIONNEL A ÉTÉ SAISI le 29 septembre 2023 d'une requête présentée pour M. Philippe PEMEZEC, candidat à l'élection sénatoriale qui s'est déroulée dans les Hauts-de-Seine, par Me Bernard Cazin, avocat au barreau de Paris, tendant à l'annulation des opérations électorales auxquelles il a été procédé dans ce département, le 24 septembre 2023, en vue de la désignation de sept sénateurs. Elle a été enregistrée au secrétariat général du Conseil constitutionnel sous le n° 2023-6278 SEN."

" Il a également été saisi le 3 octobre 2023 d'une requête tendant aux mêmes fins.
original.field--type-text-long.field--label-hidden.field__item
p
Styles
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Filter
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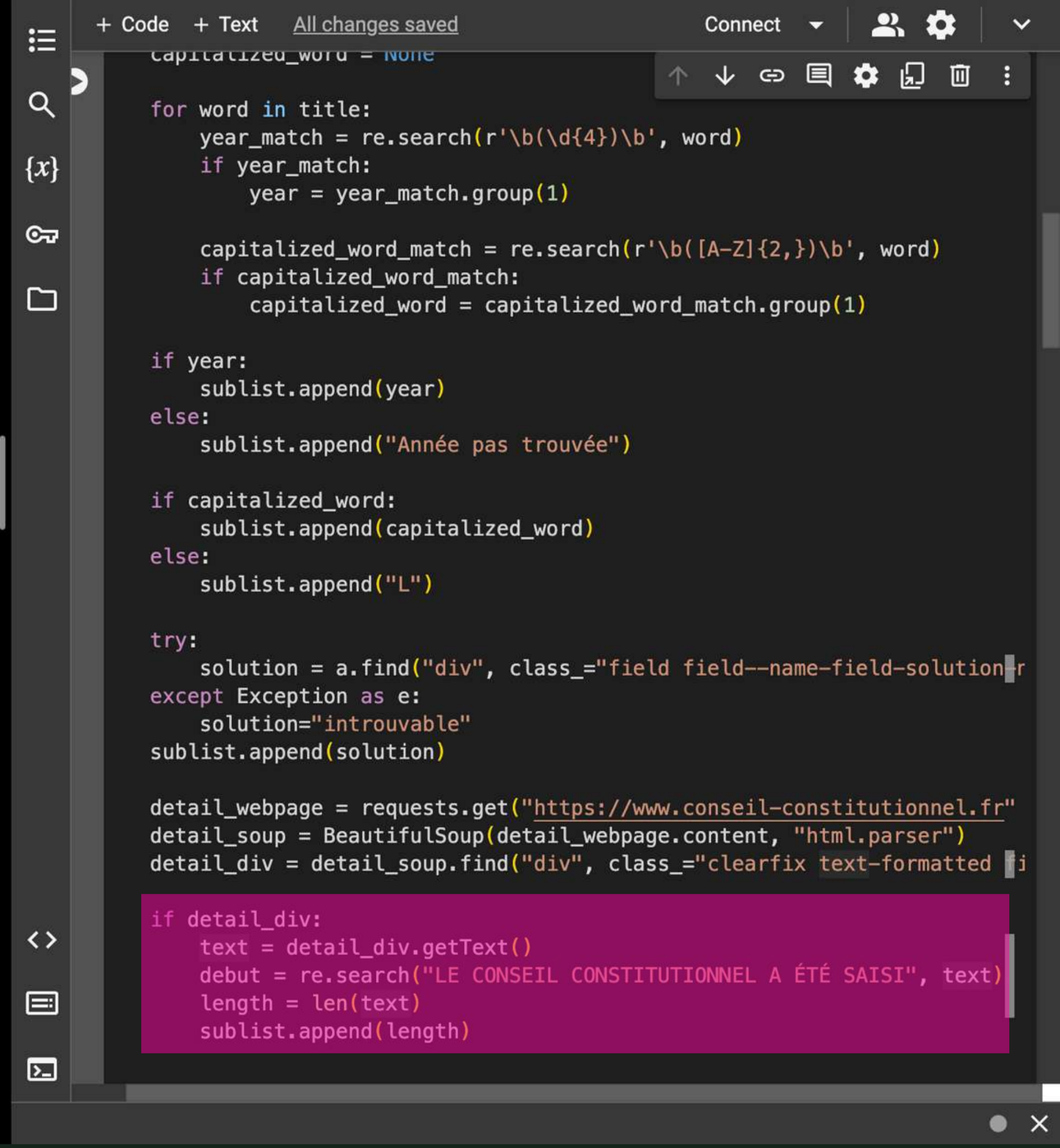
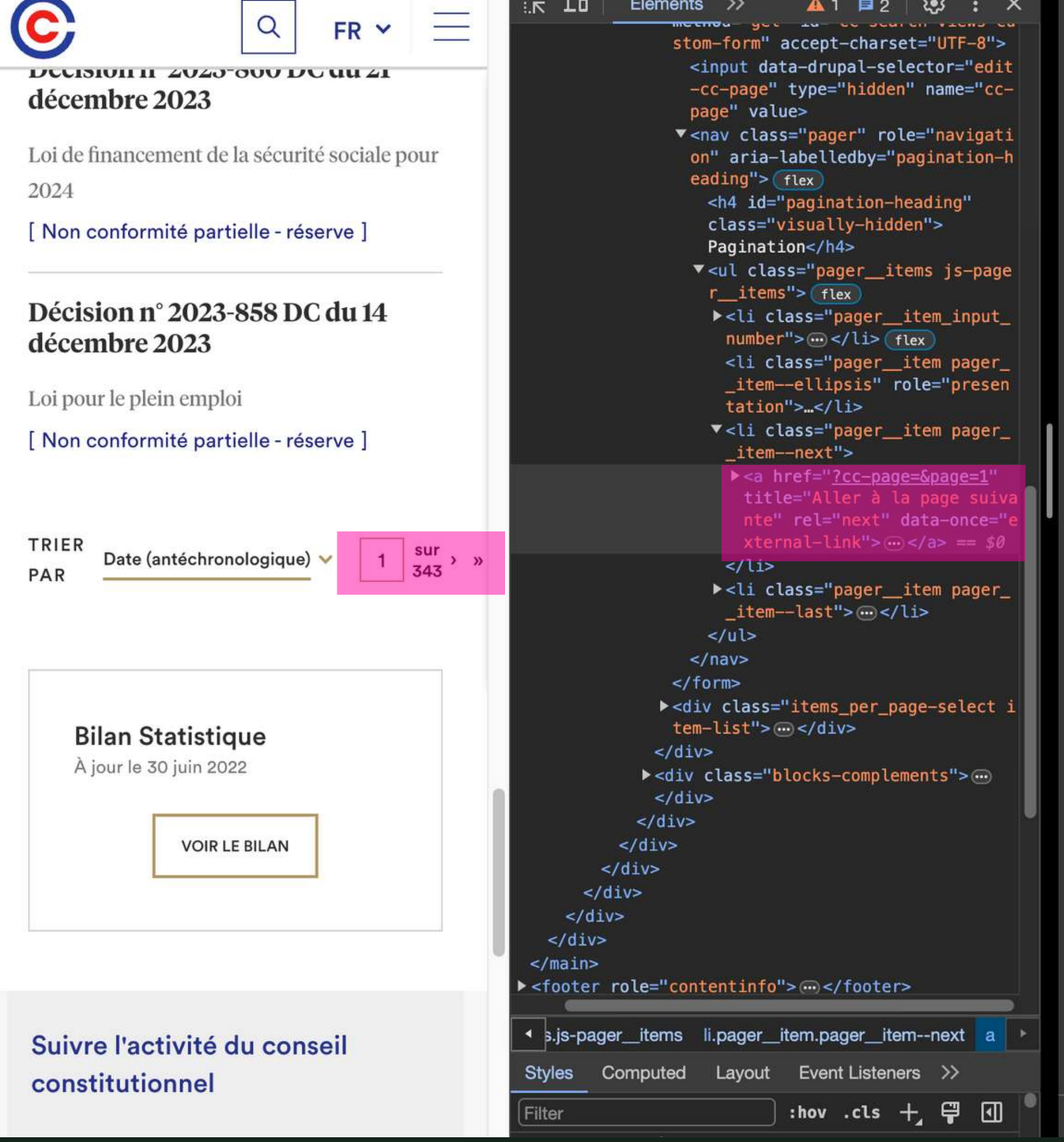
.cls


+ Code
+ Text
All changes saved
Connect
capitalized_word = None
for word in title:
year_match = re.search(r'\b(\d{4})\b', word)
if year_match:
year = year_match.group(1)
capitalized_word_match = re.search(r'\b([A-Z]{2,})\b', word)
if capitalized_word_match:
capitalized_word = capitalized_word_match.group(1)
if year:
sublist.append(year)
else:
sublist.append("Année pas trouvée")
if capitalized_word:
sublist.append(capitalized_word)
else:
sublist.append("L")
try:
solution = a.find("div", class_="field field--name-field-solution-r
except Exception as e:
solution="introuvable"
sublist.append(solution)
detail_webpage = requests.get("https://www.conseil-constitutionnel.fr"
detail_soup = BeautifulSoup(detail_webpage.content, "html.parser")
detail_div = detail_soup.find("div", class_="clearfix text-formatted fi
if detail_div:
text = detail_div.getText()
debut = re.search("LE CONSEIL CONSTITUTIONNEL A ÉTÉ SAISI", text)
length = len(text)
sublist.append(length)


FR
décembre 2023
Loi de financement de la sécurité sociale pour 2024
[Non conformité partielle - réserve]
Décision n° 2023-858 DC du 14 décembre 2023
Loi pour le plein emploi
[Non conformité partielle - réserve]
TRIER PAR
Date (antéchronologique)
1 sur 343
Bilan Statistique
À jour le 30 juin 2022
VOIR LE BILAN
Suivre l'activité du conseil constitutionnel

Elements
stom-form" accept-charset="UTF-8">
<input data-drupal-selector="edit-cc-page" type="hidden" name="cc-page" value>
<nav class="pager" role="navigation" aria-labelledby="pagination-heading">
flex
<h4 id="pagination-heading" class="visually-hidden">Pagination</h4>
<ul class="pager__items js-pager__items">
flex
<li class="pager__item_input_number">…
flex
<li class="pager__item pager__item--ellipsis" role="presentation">…
<li class="pager__item pager__item--next">
… == $0

<li class="pager__item pager__item--last">…

</nav>
</form>
…

…

</main>
<footer role="contentinfo">…</footer>
s.js-pager__items
li.pager__item.pager__item--next
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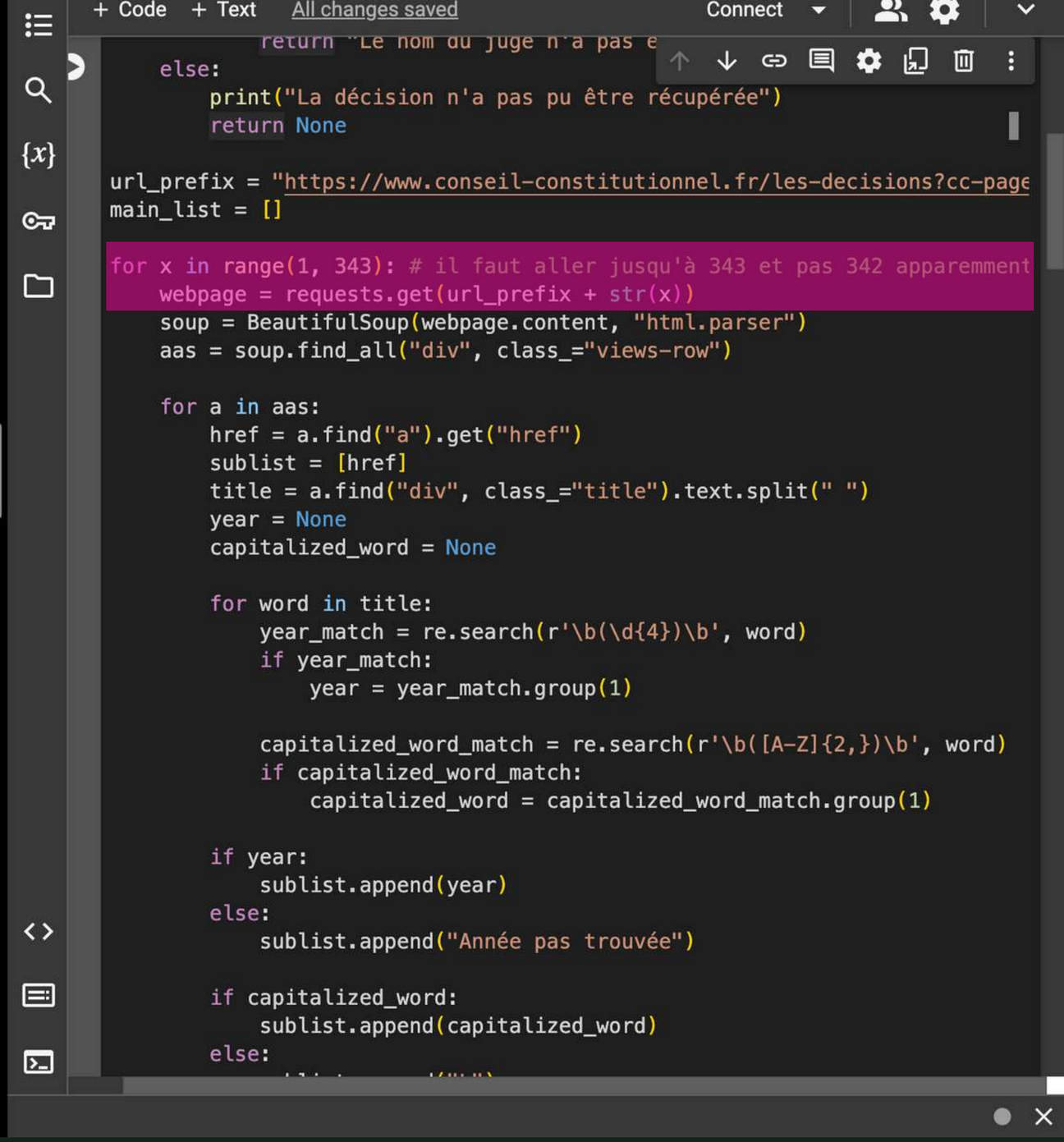
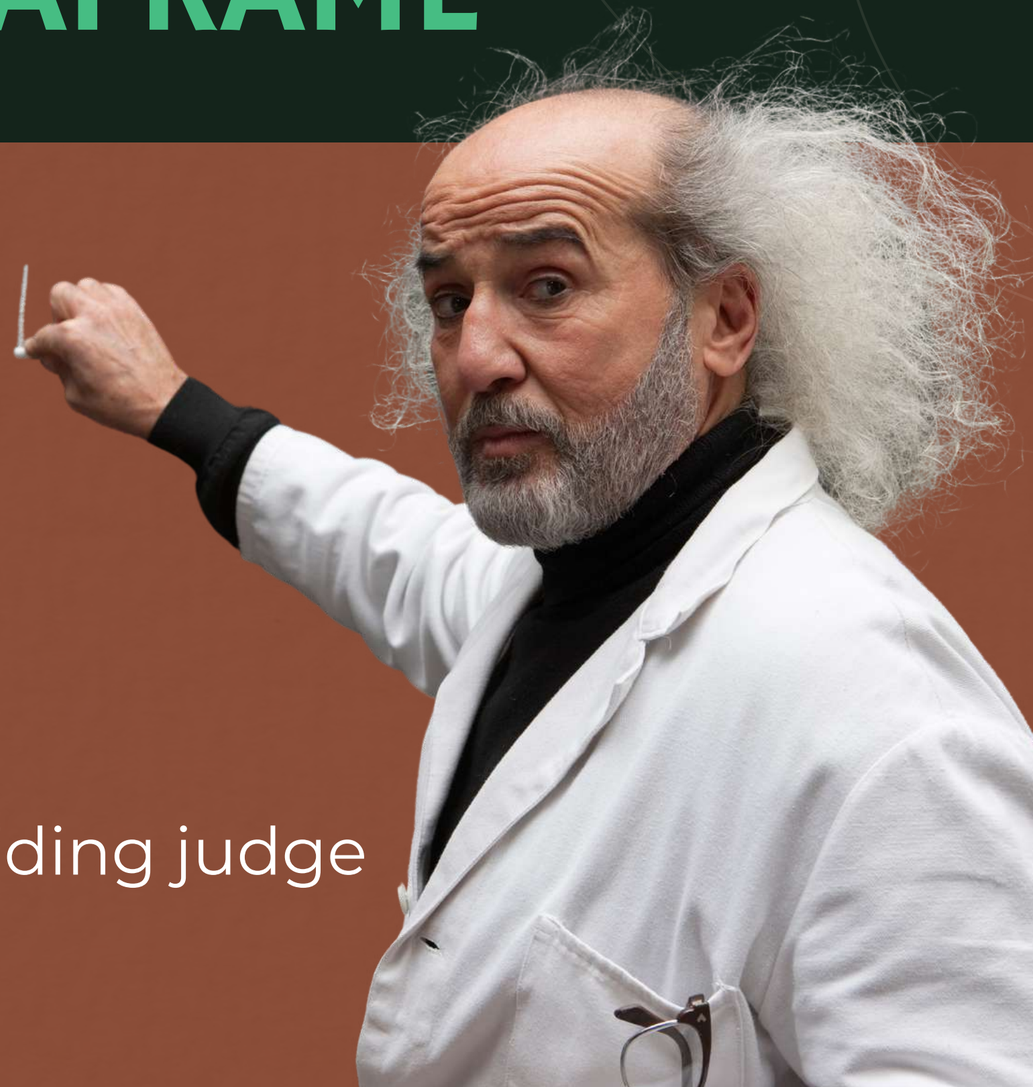

+ Code
+ Text
All changes saved
Connect
return "Le nom du juge n'a pas e
else:
print("La décision n'a pas pu être récupérée")
return None
url_prefix = "https://www.conseil-constitutionnel.fr/les-decisions?cc-page
main_list = []
for x in range(1, 343): # il faut aller jusqu'à 343 et pas 342 apparemment
webpage = requests.get(url_prefix + str(x))
soup = BeautifulSoup(webpage.content, "html.parser")
aas = soup.find_all("div", class_="views-row")
for a in aas:
href = a.find("a").get("href")
sublist = [href]
title = a.find("div", class_="title").text.split(" ")
year = None
capitalized_word = None
for word in title:
year_match = re.search(r'\b(\d{4})\b', word)
if year_match:
year = year_match.group(1)
capitalized_word_match = re.search(r'\b([A-Z]{2,})\b', word)
if capitalized_word_match:
capitalized_word = capitalized_word_match.group(1)
if year:
sublist.append(year)
else:
sublist.append("Année pas trouvée")
if capitalized_word:
sublist.append(capitalized_word)
else:

FOCUS 2 :
ANALYSIS OF THE DATAFRAME

1. Dataframe
2. Number of decisions per year
3. Average length of decisions per year
4. Number of decisions by type since 1958
5. Number of decisions issued by each presiding judge



+ Code + Text

RAM Disk

```
            judge_name= "GUÉNA"
        sublist.append(judge_name)

        main_list.append(sublist)


constitdf = pd.DataFrame(main_list, columns=["URL", "Année", "Type de décision", "Solution", "Length", "Juge"])
constitdf.to_csv("constitdf.csv", encoding="utf8")
print(constitdf)
```

```
                                      URL Année Type de décision  \
0              /decision/2024/20231081QPC.htm  2024               QPC
1              /decision/2024/20231082QPC.htm  2024               QPC
2         /decision/2024/20236278_6282SEN.htm  2024               SEN
3                 /decision/2024/2024304L.htm  2024                 L
4    /decision/2024/20236272_6277_6280SEN.htm  2024               SEN
..                                        ...   ...               ...
575              /decision/2022/20223RIP.htm  2022               RIP
576       /decision/2022/20221017_1018QPC.htm  2022               QPC
577            /decision/2022/20221015QPC.htm  2022               QPC
578            /decision/2022/20221016QPC.htm  2022               QPC
579            /decision/2022/20221014QPC.htm  2022               QPC

                Solution Length    Juge
0    Conformité - réserve   9444  FABIUS
1      Non lieu à statuer   8176  FABIUS
2                   Rejet  12085  FABIUS
3              Législatif   3620  FABIUS
4                   Rejet   5302  FABIUS
..                    ...    ...     ...
575       Non conformité   5756  FABIUS
576           Conformité   7240  FABIUS
577           Conformité  24222  FABIUS
578           Conformité  10730  FABIUS
579           Conformité   9557  FABIUS

[580 rows x 6 columns]
```

	URL	Année	Type de décision	\
0	/decision/2024/20231081QPC.htm	2024	QPC	
1	/decision/2024/20231082QPC.htm	2024	QPC	
2	/decision/2024/20236278_6282SEN.htm	2024	SEN	
3	/decision/2024/2024304L.htm	2024	L	
4	/decision/2024/20236272_6277_6280SEN.htm	2024	SEN	
..	...	...	...	
575	/decision/2022/20223RIP.htm	2022	RIP	
576	/decision/2022/20221017_1018QPC.htm	2022	QPC	
577	/decision/2022/20221015QPC.htm	2022	QPC	
578	/decision/2022/20221016QPC.htm	2022	QPC	
579	/decision/2022/20221014QPC.htm	2022	QPC	

	Solution	Length	Juge
0	Conformité - réserve	9444	FABIUS
1	Non lieu à statuer	8176	FABIUS
2	Rejet	12085	FABIUS
3	Législatif	3620	FABIUS
4	Rejet	5302	FABIUS
..	...	...	...
575	Non conformité	5756	FABIUS
576	Conformité	7240	FABIUS
577	Conformité	24222	FABIUS
578	Conformité	10730	FABIUS
579	Conformité	9557	FABIUS

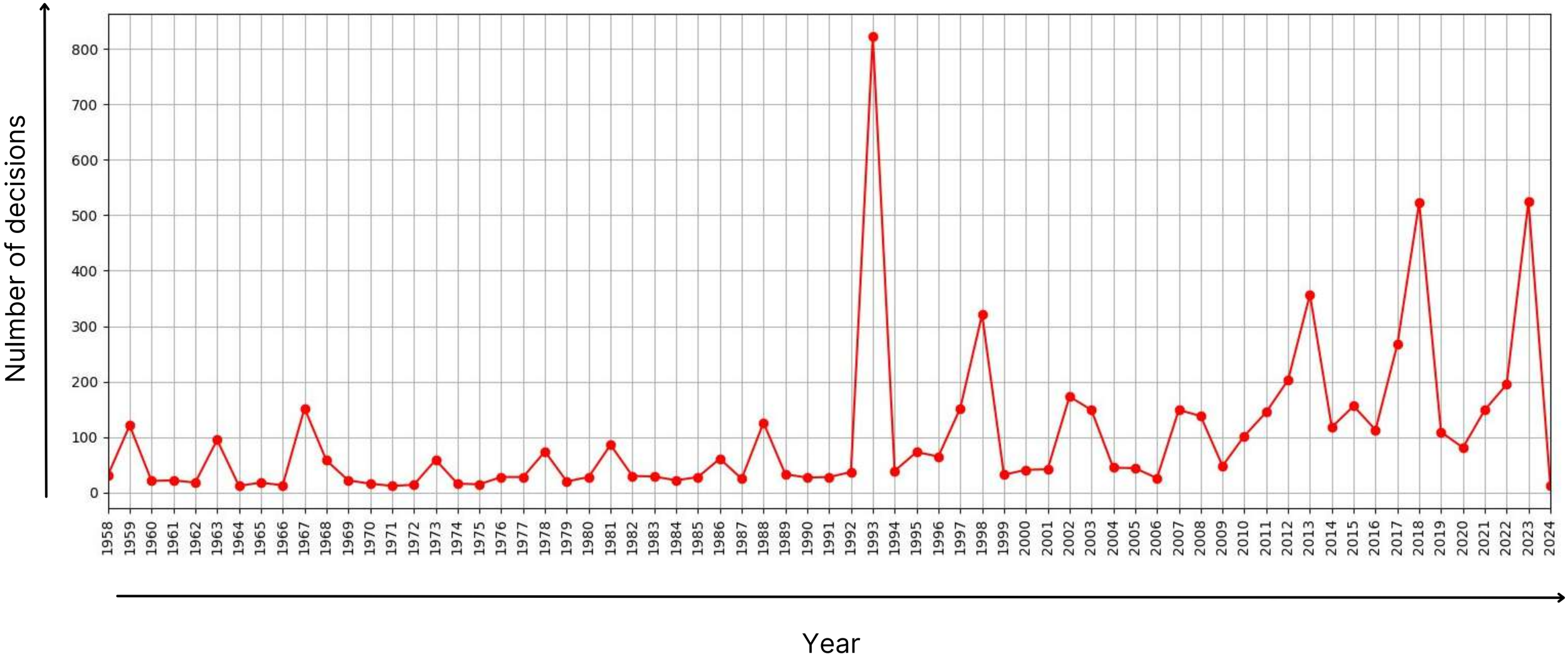
[580 rows x 6 columns]

```
plt.title('Number of decisions issued by each presiding judge')
plt.xlabel('Name of the presiding judges')
plt.ylabel('Number of decisions')
plt.xticks(rotation=45, ha='right')
plt.tight_layout()
plt.show()
```

```
#3rd graph graphique: number of decisions per year : linear graph

# Count the number of decisions per year
decisions_per_year = constitdf['Année'].value_counts().sort_index()

# Plot linear graph for number of decisions per year
plt.figure(figsize=(15, 6))
plt.plot(decisions_per_year.index, decisions_per_year, marker='o', color='red', linestyle='-')
plt.xlabel('Year')
plt.ylabel('Number of decisions')
plt.title('Number of decisions per year')
plt.xticks(rotation=45) # Rotate x-axis labels for better readability
plt.grid(True) # Add gridlines for better readability
plt.xlim(min(decisions_per_year.index), max(decisions_per_year.index))  # Set x-axis limits
plt.xticks(rotation='vertical')  # Rotate x-axis labels vertically
plt.tight_layout()
plt.show()
```

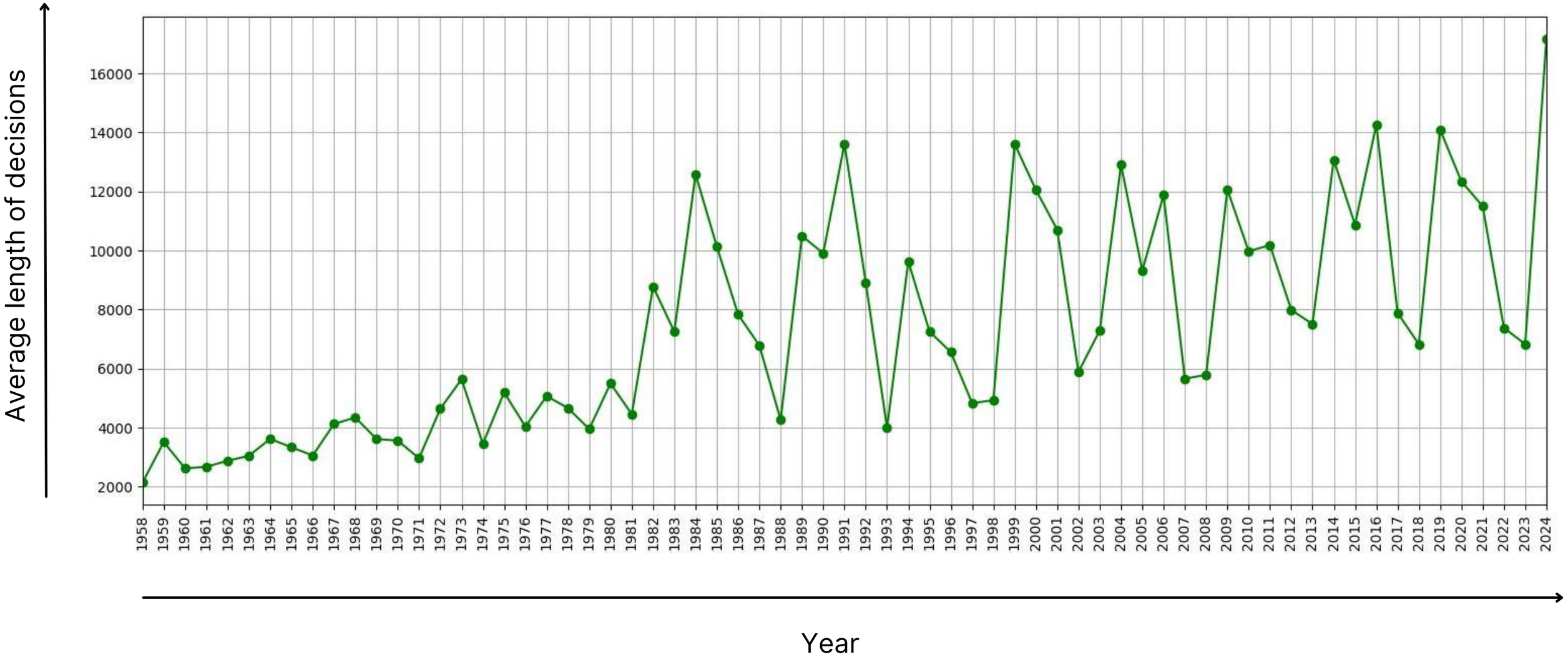
```
#4th graph: number of decision for each type of decision since 1958: histogram graph

# Count the number of decisions for each type of capitalized word:
type_decision_counts = constitdf['Type de décision'].value_counts()

# Plot bar graph
plt.figure(figsize=(15, 6))
type_decision_counts.plot(kind='bar', color='pink')
plt.xlabel('Type of decisions')
plt.ylabel('Number of decisions')
plt.title('Number of decisions by type since 1958')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
```

Number of decisions per year



```
        elif 280 <= x <= 288 and judge_name == "ECLI":
            judge_name = "Unidentified"
        elif judge_name == "FRET": # Misspelled last name
            judge_name = "FREY"
        elif judge_name == "GUENA": # The site is very inconsistent in the way they write SURNAMES
            judge_name = "GUÉNA"
        sublist.append(judge_name) # we put the judges' names in our sublist

        main_list.append(sublist)# we put all the sublists into our main list in order to be able to create a dataframe


constitdf = pd.DataFrame(main_list, columns=["URL", "Année", "Type de décision", "Solution", "Length", "Juge"]) # we create a dataframe
constitdf.to_csv("constitdf.csv", encoding="utf8") # we save the data to CSV



#1st graph: mean decisions' length per year: linear graph

# Convert 'Length' column to numeric
constitdf['Length'] = pd.to_numeric(constitdf['Length'], errors='coerce')

# Calculate mean decisions' length per year
mean_length_per_year = constitdf.groupby('Année')['Length'].mean()

# Plot linear graph for mean decisions' length per year
plt.figure(figsize=(15, 6))
plt.plot(mean_length_per_year.index, mean_length_per_year, marker='o', color='green', linestyle='-')
plt.xlabel('Year')
plt.ylabel('Average length of decisions')
plt.title('Average length of decisions per year')
plt.grid(True)
plt.xlim(min(mean_length_per_year.index), max(mean_length_per_year.index))  # Set x-axis limits
plt.xticks(rotation='vertical')  # Rotate x-axis labels vertically
plt.tight_layout()
plt.show()


#2nd graph: number of decisions taken by each President of the Conseil Constitutionnel: histogram graph

# Group data by judge and count the number of decisions for each President
judge_counts = constitdf['Juge'].value_counts()
```

Average length of decisions per year



Version finale Lightbulb

Fichier Modifier Affichage Insérer Exécution Outils Aide Toutes les modifications ont été enregistrées

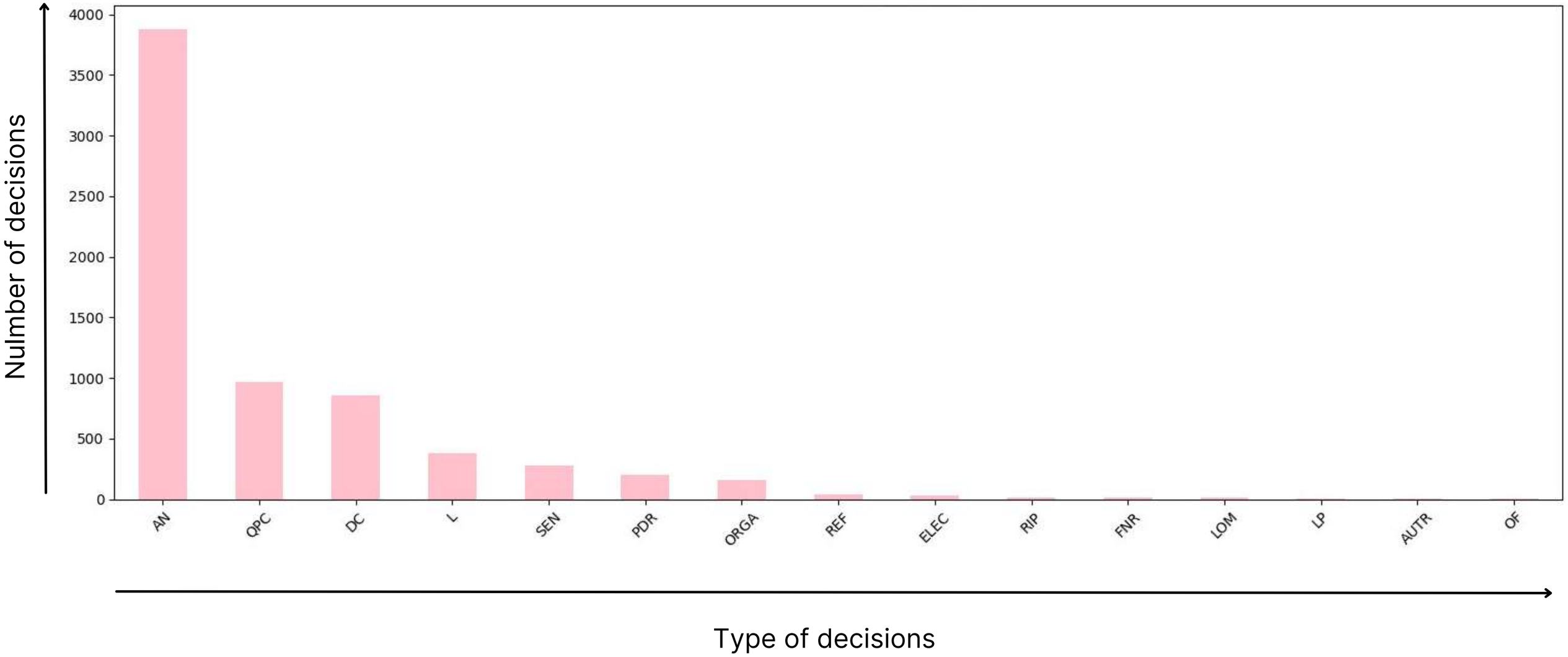
Commentaire Partager

+ Code + Texte Connecter

```python
#3rd graph graphique: number of decisions per year : linear graph

# Count the number of decisions per year
decisions_per_year = constitdf['Année'].value_counts().sort_index()

# Plot linear graph for number of decisions per year
plt.figure(figsize=(15, 6))
plt.plot(decisions_per_year.index, decisions_per_year, marker='o', color='red', linestyle='-')
plt.xlabel('Year')
plt.ylabel('Number of decisions')
plt.title('Number of decisions per year')
plt.xticks(rotation=45) # Rotate x-axis labels for better readability
plt.grid(True) # Add gridlines for better readability
plt.xlim(min(decisions_per_year.index), max(decisions_per_year.index))  # Set x-axis limits
plt.xticks(rotation='vertical')  # Rotate x-axis labels vertically
plt.tight_layout()
plt.show()
```

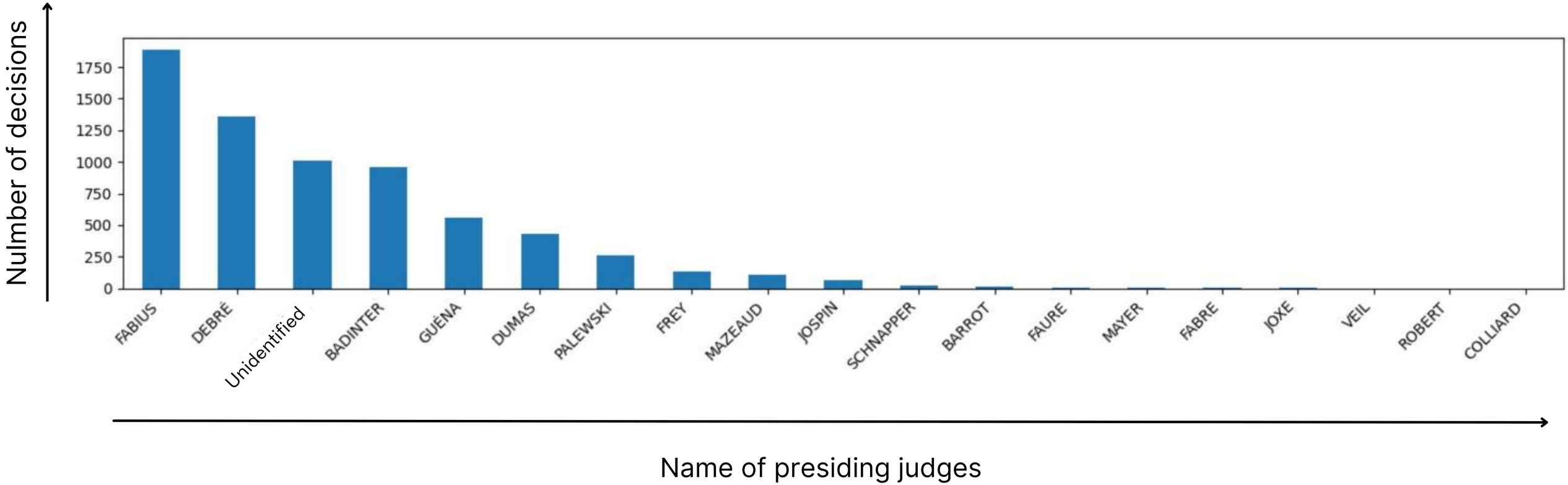
```python
#4th graph: number of decision for each type of decision since 1958: histogram graph

# Count the number of decisions for each type of capitalized word:
type_decision_counts = constitdf['Type de décision'].value_counts()

# Plot bar graph
plt.figure(figsize=(15, 6))
type_decision_counts.plot(kind='bar', color='pink')
plt.xlabel('Type of decisions')
plt.ylabel('Number of decisions')
plt.title('Number of decisions by type since 1958')
plt.xticks(rotation=45)
plt.tight_layout()
plt.show()
```

Number of decisions by type since 1958



```
mean_length_per_year = constitdf.groupby('Année')['Length'].mean()

# Plot linear graph for mean decisions' length per year
plt.figure(figsize=(15, 6))
plt.plot(mean_length_per_year.index, mean_length_per_year, marker='o', color='green', linestyle='-')
plt.xlabel('Year')
plt.ylabel('Average length of decisions')
plt.title('Average length of decisions per year')
plt.grid(True)
plt.xlim(min(mean_length_per_year.index), max(mean_length_per_year.index))  # Set x-axis limits
plt.xticks(rotation='vertical')  # Rotate x-axis labels vertically
plt.tight_layout()
plt.show()


#2nd graph: number of decisions taken by each President of the Conseil Constitutionnel: histogram graph

# Group data by judge and count the number of decisions for each President
judge_counts = constitdf['Juge'].value_counts()

# Plot histogram
plt.figure(figsize=(15, 6))
judge_counts.plot(kind='bar')
plt.title('Number of decisions issued by each presiding judge')
plt.xlabel('Name of the presiding judges')
plt.ylabel('Number of decisions')
plt.xticks(rotation=45, ha='right')
plt.tight_layout()
plt.show()



#3rd graph graphique: number of decisions per year : linear graph

# Count the number of decisions per year
decisions_per_year = constitdf['Année'].value_counts().sort_index()

# Plot linear graph for number of decisions per year
plt.figure(figsize=(15, 6))
plt.plot(decisions_per_year.index, decisions_per_year, marker='o', color='red', linestyle='-')
plt.xlabel('Year')
plt.ylabel('Number of decisions')
```

Number of decisions issued by each presiding judge



THANK YOU ! QUESTIONS ?

Jean-Baptiste HERRMANN

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