In [175…
```python
import pandas as pd
import numpy as np
import requests
import json
import matplotlib.pyplot as plt
import cfbd
from sqlalchemy import create_engine, text
```

In [176…
```python
#setting some configurations
pd.set_option('display.max_columns', None) # do not truncate columns

CFBD_API_KEY = os.getenv(''
```

In [177…
```python
config = cfbd.Configuration()
config.api_key['Authorization'] = CFBD_API_KEY
config.api_key_prefix['Authorization'] = 'Bearer'
api_config = cfbd.ApiClient(configuration)
```

In [178…
```python
# Fetching FBS teams data
try:
    teams = teams_api.get_fbs_teams()
    if not teams:
        raise ValueError("No teams data retrieved.")
except Exception as e:
    print(f"Error fetching teams data: {e}")
    teams = []
```

In [179…
```python
teams_df = pd.DataFrame(teams_data)
```

In [180…
```python
# Flattening and expanding the teams data
teams_data = []
for team in teams:
    team_dict = team.to_dict()
    location = team_dict.pop('location', {})
    for key, value in location.items():
        team_dict[f'location_{key}'] = value
    teams_data.append(team_dict)

teams_df = pd.DataFrame(teams_data)
```

In [181…
```python
# Fetching conferences data
conferences_api = cfbd.ConferencesApi(api_config)
try:
    conferences = conferences_api.get_conferences()
    if not conferences:
        raise ValueError("No conferences data retrieved.")
except Exception as e:
    print(f"Error fetching conferences data: {e}")
    conferences = []

# Creating a DataFrame from the fetched conferences data
```

```
conferences_data = [conf.to_dict() for conf in conferences]
conferences_df = pd.DataFrame(conferences_data)
```

In [182…
```python
# Fetching games data for the year 2021
games_api = cfbd.GamesApi(api_config)
try:
    games = games_api.get_games(year=2021)
    if not games:
        raise ValueError("No games data retrieved.")
except Exception as e:
    print(f"Error fetching games data: {e}")
    games = []
```

In [183…
```python
# Creating a DataFrame from the fetched games data with additional columns
games_data = []
for g in games:
    game_dict = {
        'home_team': g.home_team,
        'home_points': g.home_points,
        'away_team': g.away_team,
        'away_points': g.away_points,
        'venue': g.venue,
        'start_date': g.start_date,
        'conference_game': g.conference_game,
        'neutral_site': g.neutral_site,
        'season': g.season,
        'week': g.week,
    }
    games_data.append(game_dict)
```

In [184…
```python
# Fetching player stats
plays_api = cfbd.PlaysApi(api_config)
try:
    player_stats = plays_api.get_play_stat_types()
    if not player_stats:
        raise ValueError("No player stats data retrieved.")
except Exception as e:
    print(f"Error fetching player stats data: {e}")
    player_stats = []

player_stats_data = [stat.to_dict() for stat in player_stats]
player_stats_df = pd.DataFrame(player_stats_data)
```

In [185…
```python
# Fetching team stats
stats_api = cfbd.StatsApi(api_config)
try:
    team_stats = stats_api.get_team_season_stats(year=2021)
    if not team_stats:
        raise ValueError("No team stats data retrieved.")
except Exception as e:
    print(f"Error fetching team stats data: {e}")
    team_stats = []
```

```python
team_stats_data = [stat.to_dict() for stat in team_stats]
team_stats_df = pd.DataFrame(team_stats_data)
```

In [186…
```python
# Fetching team rankings
rankings_api = cfbd.RankingsApi(api_config)
try:
    rankings = rankings_api.get_team_rankings(year=2021)
    if not rankings:
        raise ValueError("No rankings data retrieved.")
except Exception as e:
    print(f"Error fetching rankings data: {e}")
    rankings = []

rankings_data = []
for ranking in rankings:
    for poll in ranking.polls:
        for rank in poll.ranks:
            rank_dict = rank.to_dict()
            rank_dict.update({
                'season': ranking.season,
                'week': ranking.week,
                'poll': poll.poll
            })
            rankings_data.append(rank_dict)

rankings_df = pd.DataFrame(rankings_data)
```

In [187…
```python
# Fetching recruiting data
recruiting_api = cfbd.RecruitingApi(api_config)
try:
    recruiting = recruiting_api.get_recruiting_players(year=2021)
    if not recruiting:
        raise ValueError("No recruiting data retrieved.")
except Exception as e:
    print(f"Error fetching recruiting data: {e}")
    recruiting = []

recruiting_data = [rec.to_dict() for rec in recruiting]
recruiting_df = pd.DataFrame(recruiting_data)
```

In [188…
```python
# Fetching team recruiting rankings and ratings
try:
    team_recruiting = recruiting_api.get_recruiting_teams(year=2021)
    if not team_recruiting:
        raise ValueError("No team recruiting data retrieved.")
except Exception as e:
    print(f"Error fetching team recruiting data: {e}")
    team_recruiting = []

team_recruiting_data = [rec.to_dict() for rec in team_recruiting]
team_recruiting_df = pd.DataFrame(team_recruiting_data)
```

```python
In [189…    # Flatten nested dictionary columns
           def flatten_columns(df, col):
               col_flat = pd.json_normalize(df[col])
               col_flat.columns = [f"{col}_{subcol}" for subcol in col_flat.columns]
               df = df.drop(col, axis=1).join(col_flat)
               return df

           # Flatten the 'hometown_info' column in recruiting_df
           if 'hometown_info' in recruiting_df.columns:
               recruiting_df = flatten_columns(recruiting_df, 'hometown_info')
```

```python
In [190…    games_df = pd.DataFrame(games_data)
           games_df['margin'] = games_df['home_points'] - games_df['away_points']
```

```python
In [191…    # Database connection
           db_string = ""
           db_engine = create_engine(db_string)
```

```python
In [192…    # Insert data into PostgreSQL database
           games_df.to_sql('cfb_games_2021', db_engine, if_exists='replace', index=Fals
           teams_df.to_sql('cfb_teams_2021', db_engine, if_exists='replace', index=Fals
           conferences_df.to_sql('cfb_conferences_2021', db_engine, if_exists='replace'
           player_stats_df.to_sql('cfb_player_stats_2021', db_engine, if_exists='replac
           team_stats_df.to_sql('cfb_team_stats_2021', db_engine, if_exists='replace',
           rankings_df.to_sql('cfb_rankings_2021', db_engine, if_exists='replace', inde
           recruiting_df.to_sql('cfb_recruiting_2021', db_engine, if_exists='replace',
           team_recruiting_df.to_sql('cfb_team_recruiting_2021', db_engine, if_exists='
```

```
Out[192…    191
```

```python
In [195…    # Load the cfb_rankings_2021 and cfb_team_recruiting_2021 tables from the da
           rankings_df = pd.read_sql('SELECT * FROM cfb_rankings_2021', db_engine)
           team_recruiting_df = pd.read_sql('SELECT * FROM cfb_team_recruiting_2021', d

           # Display the first few rows and column information for inspection
           print("Rankings DataFrame Info:")
           print(rankings_df.info())
           print("\nRankings DataFrame Head:")
           print(rankings_df.head())

           print("\nTeam Recruiting DataFrame Info:")
           print(team_recruiting_df.info())
           print("\nTeam Recruiting DataFrame Head:")
           print(team_recruiting_df.head())
```

```
Rankings DataFrame Info:
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1275 entries, 0 to 1274
Data columns (total 8 columns):
 #   Column            Non-Null Count   Dtype
---  ------            --------------   -----
 0   rank              1275 non-null    int64
 1   school            1275 non-null    object
 2   conference        1275 non-null    object
 3   first_place_votes 1275 non-null    int64
 4   points            1275 non-null    int64
 5   season            1275 non-null    int64
 6   week              1275 non-null    int64
 7   poll              1275 non-null    object
dtypes: int64(5), object(3)
memory usage: 79.8+ KB
None


Rankings DataFrame Head:
   rank        school conference  first_place_votes  points  season  week  \
0     1       Alabama        SEC                 63    1621    2021     1
1     2       Clemson        ACC                  0    1508    2021     1
2     3      Oklahoma     Big 12                  2    1481    2021     1
3     4    Ohio State    Big Ten                  0    1435    2021     1
4     5       Georgia        SEC                  0    1386    2021     1

            poll
0   Coaches Poll
1   Coaches Poll
2   Coaches Poll
3   Coaches Poll
4   Coaches Poll

Team Recruiting DataFrame Info:
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 191 entries, 0 to 190
Data columns (total 4 columns):
 #   Column  Non-Null Count   Dtype
---  ------  --------------   -----
 0   year    191 non-null     int64
 1   rank    191 non-null     int64
 2   team    191 non-null     object
 3   points  191 non-null     float64
dtypes: float64(1), int64(2), object(1)
memory usage: 6.1+ KB
None


Team Recruiting DataFrame Head:
   year  rank        team  points
0  2021     1     Alabama  327.91
1  2021     2  Ohio State  309.49
2  2021     3     Georgia  294.55
3  2021     4         LSU  291.37
4  2021     5     Clemson  291.20
```

```python
In [196…   # Load the cfb_rankings_2021 table from the database
           rankings_df = pd.read_sql('SELECT * FROM cfb_rankings_2021', db_engine)

           # Group by week and display the rankings for each week
           rankings_by_week = rankings_df.groupby('week')

           # Iterate over each week and display the rankings
           for week, group in rankings_by_week:



               print(f"\nRankings for Week {week}:")
               print(group.sort_values(by='rank'))

           # Display the unique weeks present in the data
           print("\nUnique weeks in the rankings data:", rankings_df['week'].unique())
```

```
Rankings for Week 1:
     rank              school     conference  first_place_votes  points  season
\
0       1            Alabama            SEC                 63    1621    2021
25      1            Alabama            SEC                 47    1548    2021
75      1      West Florida    Gulf South                 26     698    2021
50      1  Sam Houston State           AWC                 18     682    2021
76      2  Minnesota State   Northern Sun                  2     673    2021
..     ...               ...            ...                ...     ...     ...
48     24               Utah         Pac-12                  0     176    2021
23     24   Coastal Carolina      Sun Belt                  0     150    2021
24     25           Ole Miss            SEC                  0     149    2021
74     25        Austin Peay            OVC                  0      65    2021
49     25      Arizona State         Pac-12                  0     125    2021

     week                          poll
0       1                  Coaches Poll
25      1                    AP Top 25
75      1  AFCA Division II Coaches Poll
50      1             FCS Coaches Poll
76      1  AFCA Division II Coaches Poll
..     ...                           ...
48      1                    AP Top 25
23      1                  Coaches Poll
24      1                  Coaches Poll
74      1             FCS Coaches Poll
49      1                    AP Top 25

[100 rows x 8 columns]

Rankings for Week 2:
     rank              school     conference  first_place_votes  points  season
\
100     1            Alabama            SEC                 64    1624    2021
150     1      West Florida    Gulf South                 28     744    2021
175     1  Sam Houston State           AWC                 23     681    2021
125     1            Alabama            SEC                 59    1571    2021
176     2     James Madison            CAA                  1     655    2021
..     ...               ...            ...                ...     ...     ...
123    24              Miami            ACC                  0     186    2021
149    25             Auburn            SEC                  0      83    2021
124    25      Arizona State         Pac-12                  0     181    2021
174    25        Bowie State           CIAA                  0      58    2021
199    25     Missouri State          MVFC                  0      58    2021

     week                          poll
100     2                  Coaches Poll
150     2  AFCA Division II Coaches Poll
175     2             FCS Coaches Poll
125     2                    AP Top 25
176     2             FCS Coaches Poll
..     ...                           ...
123     2                  Coaches Poll
149     2                    AP Top 25
124     2                  Coaches Poll
174     2  AFCA Division II Coaches Poll
```

```
199      2                      FCS Coaches Poll

[100 rows x 8 columns]

Rankings for Week 3:
     rank          school conference  first_place_votes  points  season
\
200      1         Alabama        SEC                 64    1624    2021
250      1  Sam Houston State     AWC                 25     697    2021
225      1         Alabama        SEC                 60    1572    2021
201      2         Georgia        SEC                  1    1558    2021
251      2   James Madison        CAA                  1     657    2021
..     ...             ...        ...                ...     ...     ...
223     24        Arkansas        SEC                  0     196    2021
248     24           Miami        ACC                  0     177    2021
249     25        Michigan    Big Ten                  0     163    2021
224     25        Michigan    Big Ten                  0     180    2021
274     25         Furman   Southern                  0      58    2021

     week           poll
200      3   Coaches Poll
250      3  FCS Coaches Poll
225      3       AP Top 25
201      3   Coaches Poll
251      3  FCS Coaches Poll
..     ...            ...
223      3   Coaches Poll
248      3       AP Top 25
249      3       AP Top 25
224      3   Coaches Poll
274      3  FCS Coaches Poll

[75 rows x 8 columns]

Rankings for Week 4:
     rank              school       conference  first_place_votes  points  \
275      1             Alabama             SEC                 64    1616
325      1    Sam Houston State          AWC                 24     696
300      1             Alabama             SEC                 59    1547
276      2             Georgia             SEC                  1    1558
326      2       James Madison             CAA                  3     667
..     ...                 ...             ...                ...     ...
298     24                UCLA           Pac-12                 0     170
323     24                UCLA           Pac-12                 0     142
349     24     Central Arkansas          AWC                  0      67
324     25        Kansas State          Big 12                 0     127
299     25        Fresno State   Mountain West                 0      85

     season  week           poll
275    2021     4   Coaches Poll
325    2021     4  FCS Coaches Poll
300    2021     4       AP Top 25
276    2021     4   Coaches Poll
326    2021     4  FCS Coaches Poll
..     ...   ...            ...
298    2021     4   Coaches Poll
```

```
323     2021     4          AP Top 25
349     2021     4   FCS Coaches Poll
324     2021     4          AP Top 25
299     2021     4      Coaches Poll


[75 rows x 8 columns]

Rankings for Week 5:
     rank            school conference  first_place_votes  points  season
\
350     1           Alabama        SEC                 64    1624    2021
401     1  Sam Houston State        AWC                 26     698    2021
376     1           Alabama        SEC                 58    1546    2021
351     2           Georgia        SEC                  1    1558    2021
402     2     James Madison        CAA                  1     658    2021
..    ...               ...        ...                ...     ...     ...
374    24            Baylor     Big 12                  0     134    2021
399    24       Wake Forest        ACC                  0     142    2021
425    24         UT Martin        OVC                  0      67    2021
400    25           Clemson        ACC                  0     138    2021
375    25       Wake Forest        ACC                  0     119    2021


     week              poll
350     5      Coaches Poll
401     5  FCS Coaches Poll
376     5         AP Top 25
351     5      Coaches Poll
402     5  FCS Coaches Poll
..    ...               ...
374     5      Coaches Poll
399     5         AP Top 25
425     5  FCS Coaches Poll
400     5         AP Top 25
375     5      Coaches Poll


[75 rows x 8 columns]

Rankings for Week 6:
     rank            school            conference  first_place_votes  points
\
426     1  Sam Houston State                  AWC                 24     694
476     1           Alabama                  SEC                 63    1623
451     1           Alabama                  SEC                 53    1541
427     2     James Madison                  CAA                  1     653
477     2           Georgia                  SEC                  2    1562
..    ...               ...                  ...                ...     ...
449    24          Princeton                  Ivy                  0      41
474    24               SMU    American Athletic                  0     136
475    25    San Diego State       Mountain West                  0     111
450    25          Monmouth           Big South                  0      39
500    25      Arizona State              Pac-12                  0     141


     season  week              poll
426     2021     6  FCS Coaches Poll
476     2021     6      Coaches Poll
451     2021     6         AP Top 25
```

```
427    2021    6   FCS Coaches Poll
477    2021    6       Coaches Poll
..      ...   ...                  ...
449    2021    6   FCS Coaches Poll
474    2021    6          AP Top 25
475    2021    6          AP Top 25
450    2021    6   FCS Coaches Poll
500    2021    6       Coaches Poll

[75 rows x 8 columns]

Rankings for Week 7:
      rank            school      conference  first_place_votes  points  \
550      1  Sam Houston State           AWC                 27     698
501      1            Georgia           SEC                 64    1624
525      1            Georgia           SEC                 62    1550
502      2               Iowa       Big Ten                  1    1537
551      2  Eastern Washington       Big Sky                  1     664
..     ...               ...           ...                ...     ...
573     24        North Dakota          MVFC                  0      94
548     24    San Diego State  Mountain West                  0     176
524     25            Clemson           ACC                  0     155
549     25              Texas        Big 12                  0     108
574     25      Jackson State          SWAC                  0      73

      season  week            poll
550     2021     7  FCS Coaches Poll
501     2021     7      Coaches Poll
525     2021     7         AP Top 25
502     2021     7      Coaches Poll
551     2021     7  FCS Coaches Poll
..       ...   ...                  ...
573     2021     7  FCS Coaches Poll
548     2021     7         AP Top 25
524     2021     7      Coaches Poll
549     2021     7         AP Top 25
574     2021     7  FCS Coaches Poll

[75 rows x 8 columns]

Rankings for Week 8:
      rank            school       conference  first_place_votes  points  \
575      1            Georgia            SEC                 65    1625
625      1  Sam Houston State           AWC                 26     674
600      1            Georgia            SEC                 63    1575
576      2           Oklahoma         Big 12                  0    1508
626      2  Eastern Washington        Big Sky                  2     670
..     ...               ...            ...                ...     ...
598     24            Clemson            ACC                  0     146
623     24     UT San Antonio  Conference USA                  0     104
624     25             Purdue        Big Ten                  0      68
599     25     UT San Antonio  Conference USA                  0      96
649     25            Delaware           CAA                  0      71

      season  week           poll
575     2021     8      Coaches Poll
```

```
625    2021      8   FCS Coaches Poll
600    2021      8         AP Top 25
576    2021      8       Coaches Poll
626    2021      8   FCS Coaches Poll
..      ...    ...                ...
598    2021      8       Coaches Poll
623    2021      8         AP Top 25
624    2021      8         AP Top 25
599    2021      8       Coaches Poll
649    2021      8   FCS Coaches Poll

[75 rows x 8 columns]

Rankings for Week 9:
      rank              school          conference  first_place_votes  points
\
650      1             Georgia                 SEC                 64    1600
700      1   Sam Houston State                 AWC                 27     675
675      1             Georgia                 SEC                 63    1575
651      2          Cincinnati   American Athletic                  0    1469
701      2   North Dakota State                MVFC                  0     642
..      ...                ...                 ...                ...     ...
698     24    Coastal Carolina             Sun Belt                  0     132
673     24    Coastal Carolina             Sun Belt                  0     134
699     25                 BYU    FBS Independents                  0      44
674     25            NC State                 ACC                  0      73
724     25        Rhode Island                 CAA                  0      59

      season  week              poll
650    2021      9       Coaches Poll
700    2021      9   FCS Coaches Poll
675    2021      9         AP Top 25
651    2021      9       Coaches Poll
701    2021      9   FCS Coaches Poll
..      ...    ...                ...
698    2021      9         AP Top 25
673    2021      9       Coaches Poll
699    2021      9         AP Top 25
674    2021      9       Coaches Poll
724    2021      9   FCS Coaches Poll

[75 rows x 8 columns]

Rankings for Week 10:
      rank              school          conference  first_place_votes  points
\
725      1             Georgia                 SEC                 64    1600
775      1   Sam Houston State                 AWC                 27     675
800      1             Georgia                 SEC                  0       0
750      1             Georgia                 SEC                 63    1575
801      2             Alabama                 SEC                  0       0
..      ...                ...                 ...                ...     ...
748     24                 SMU   American Athletic                  0     192
774     25        Fresno State       Mountain West                  0     151
749     25          Pittsburgh                 ACC                  0     162
799     25        Chattanooga            Southern                  0      44
```

```
825    25         Pittsburgh              ACC                    0       0

      season  week                   poll
725     2021    10           Coaches Poll
775     2021    10       FCS Coaches Poll
800     2021    10  Playoff Committee Rankings
750     2021    10              AP Top 25
801     2021    10  Playoff Committee Rankings
..       ...   ...                    ...
748     2021    10           Coaches Poll
774     2021    10              AP Top 25
749     2021    10           Coaches Poll
799     2021    10       FCS Coaches Poll
825     2021    10  Playoff Committee Rankings

[100 rows x 8 columns]

Rankings for Week 11:
       rank            school  conference  first_place_votes  points  season
\
826      1           Georgia         SEC                 64    1600    2021
876      1  Sam Houston State        AWC                 28     700    2021
901      1           Georgia         SEC                  0       0    2021
851      1           Georgia         SEC                 63    1575    2021
902      2           Alabama         SEC                  0       0    2021
..     ...              ...          ...                ...     ...     ...
849     24         Wisconsin     Big Ten                  0     177    2021
875     25        Pittsburgh         ACC                  0     194    2021
850     25         Louisiana    Sun Belt                  0     164    2021
900     25  Eastern Kentucky         AWC                  0      51    2021
925     25          Arkansas         SEC                  0       0    2021

      week                   poll
826     11           Coaches Poll
876     11       FCS Coaches Poll
901     11  Playoff Committee Rankings
851     11              AP Top 25
902     11  Playoff Committee Rankings
..     ...                    ...
849     11           Coaches Poll
875     11              AP Top 25
850     11           Coaches Poll
900     11       FCS Coaches Poll
925     11  Playoff Committee Rankings

[100 rows x 8 columns]

Rankings for Week 12:
       rank            school  conference  first_place_votes  points  season
\
926      1           Georgia         SEC                 62    1550    2021
976      1  Sam Houston State        AWC                 27     698    2021
1001     1           Georgia         SEC                  0       0    2021
951      1           Georgia         SEC                 62    1550    2021
1002     2           Alabama         SEC                  0       0    2021
...     ...              ...          ...                ...     ...     ...
```

```
949     24       NC State     ACC              0    138    2021
975     25       NC State     ACC              0     95    2021
950     25          Utah     Pac-12            0    133    2021
1000    25     Florida A&M     SWAC             0     53    2021
1025    25  Mississippi State   SEC             0      0    2021

        week                    poll
926     12            Coaches Poll
976     12        FCS Coaches Poll
1001    12  Playoff Committee Rankings
951     12              AP Top 25
1002    12  Playoff Committee Rankings
...     ...                    ...
949     12            Coaches Poll
975     12              AP Top 25
950     12            Coaches Poll
1000    12        FCS Coaches Poll
1025    12  Playoff Committee Rankings

[100 rows x 8 columns]

Rankings for Week 13:
        rank           school conference  first_place_votes  points  season
\
1026    1          Georgia        SEC             62   1550    2021
1076    1   Sam Houston State     AWC             27    675    2021
1101    1          Georgia        SEC              0      0    2021
1051    1          Georgia        SEC             62   1550    2021
1102    2       Ohio State    Big Ten            0      0    2021
...     ...              ...        ...            ...    ...    ...
1049    24        NC State     ACC              0    196    2021
1075    25        Arkansas     SEC              0    105    2021
1050    25        Kentucky     SEC              0     91    2021
1100    25    Northern Iowa    MVFC             0     29    2021
1125    25        Arkansas     SEC              0      0    2021

        week                    poll
1026    13            Coaches Poll
1076    13        FCS Coaches Poll
1101    13  Playoff Committee Rankings
1051    13              AP Top 25
1102    13  Playoff Committee Rankings
...     ...                    ...
1049    13            Coaches Poll
1075    13              AP Top 25
1050    13            Coaches Poll
1100    13        FCS Coaches Poll
1125    13  Playoff Committee Rankings

[100 rows x 8 columns]

Rankings for Week 14:
        rank      school conference  first_place_votes  points  season  week  \
1126    1     Georgia        SEC             62   1550    2021    14
1176    1     Georgia        SEC              0      0    2021    14
1151    1     Georgia        SEC             62   1550    2021    14
```

```
1127      2     Alabama          SEC                    0   1440   2021   14
1177      2     Michigan     Big Ten                    0      0   2021   14
...      ...       ...          ...                  ...    ...    ...  ...
1149     24     Clemson          ACC                    0    170   2021   14
1174     24    Texas A&M         SEC                    0    117   2021   14
1175     25     Kentucky         SEC                    0     82   2021   14
1150     25     Arkansas         SEC                    0    128   2021   14
1200     25    Texas A&M         SEC                    0      0   2021   14

                              poll
1126              Coaches Poll
1176  Playoff Committee Rankings
1151                 AP Top 25
1127              Coaches Poll
1177  Playoff Committee Rankings
...                        ...
1149              Coaches Poll
1174                 AP Top 25
1175                 AP Top 25
1150              Coaches Poll
1200  Playoff Committee Rankings

[75 rows x 8 columns]

Rankings for Week 15:
      rank          school      conference  first_place_votes   points  \
1201     1         Alabama             SEC                 54     1540
1250     1         Alabama             SEC                  0        0
1226     1         Alabama             SEC                 50     1535
1202     2        Michigan         Big Ten                  5     1474
1251     2        Michigan         Big Ten                  0        0
...     ...          ...             ...                  ...      ...
1273    24  San Diego State   Mountain West                 0        0
1224    24        Arkansas             SEC                  0      185
810     25        Kentucky             SEC                  0      129
1225    25  UT San Antonio   Conference USA                 0      146
1274    25       Texas A&M             SEC                  0        0

      season  week                        poll
1201    2021    15              Coaches Poll
1250    2021    15  Playoff Committee Rankings
1226    2021    15                 AP Top 25
1202    2021    15              Coaches Poll
1251    2021    15  Playoff Committee Rankings
...      ...   ...                        ...
1273    2021    15  Playoff Committee Rankings
1224    2021    15              Coaches Poll
810     2021    15                 AP Top 25
1225    2021    15              Coaches Poll
1274    2021    15  Playoff Committee Rankings

[75 rows x 8 columns]

Unique weeks in the rankings data: [ 1  2  3  4  5  7  6  8  9 10 15 11 12 1
3 14]
```

In [197…

```python
# Load the cfb_rankings_2021 table from the database, filtering for "AP Top
query = """
SELECT * FROM cfb_rankings_2021
WHERE poll IN ('AP Top 25', 'Coaches Poll')
"""
rankings_df = pd.read_sql(query, db_engine)

# Group by week and poll, then display the rankings for each week and poll
rankings_by_week_and_poll = rankings_df.groupby(['week', 'poll'])

# Iterate over each week and poll and display the rankings
for (week, poll), group in rankings_by_week_and_poll:
    print(f"\nRankings for Week {week} — {poll}:")
    print(group.sort_values(by='rank'))

# Display the unique weeks and polls present in the data
print("\nUnique weeks in the rankings data:", rankings_df['week'].unique())
print("Unique polls in the rankings data:", rankings_df['poll'].unique())
```

```
Rankings for Week 1 — AP Top 25:
    rank          school      conference  first_place_votes  points  \
25     1          Alabama             SEC                 47    1548
26     2         Oklahoma          Big 12                  6    1462
27     3          Clemson             ACC                  6    1447
28     4       Ohio State         Big Ten                  1    1393
29     5          Georgia             SEC                  3    1364
30     6        Texas A&M             SEC                  0    1223
31     7       Iowa State          Big 12                  0    1160
32     8       Cincinnati  American Athletic               0    1014
33     9       Notre Dame  FBS Independents                0    1009
34    10   North Carolina             ACC                  0     999
35    11           Oregon          Pac-12                  0     968
36    12        Wisconsin         Big Ten                  0     743
37    13          Florida             SEC                  0     728
38    14            Miami             ACC                  0     663
39    15              USC          Pac-12                  0     660
40    16              LSU             SEC                  0     631
41    17          Indiana         Big Ten                  0     549
42    18             Iowa         Big Ten                  0     513
43    19       Penn State         Big Ten                  0     456
44    20       Washington          Pac-12                  0     449
45    21            Texas          Big 12                  0     350
46    22  Coastal Carolina       Sun Belt                  0     232
47    23        Louisiana        Sun Belt                  0     208
48    24             Utah          Pac-12                  0     176
49    25    Arizona State          Pac-12                  0     125

    season  week        poll
25    2021     1  AP Top 25
26    2021     1  AP Top 25
27    2021     1  AP Top 25
28    2021     1  AP Top 25
29    2021     1  AP Top 25
30    2021     1  AP Top 25
31    2021     1  AP Top 25
32    2021     1  AP Top 25
33    2021     1  AP Top 25
34    2021     1  AP Top 25
35    2021     1  AP Top 25
36    2021     1  AP Top 25
37    2021     1  AP Top 25
38    2021     1  AP Top 25
39    2021     1  AP Top 25
40    2021     1  AP Top 25
41    2021     1  AP Top 25
42    2021     1  AP Top 25
43    2021     1  AP Top 25
44    2021     1  AP Top 25
45    2021     1  AP Top 25
46    2021     1  AP Top 25
47    2021     1  AP Top 25
48    2021     1  AP Top 25
49    2021     1  AP Top 25

Rankings for Week 1 — Coaches Poll:
```

```
     rank        school      conference  first_place_votes  points  \
0      1        Alabama             SEC                 63    1621
1      2        Clemson             ACC                  0    1508
2      3        Oklahoma          Big 12                 2    1481
3      4      Ohio State         Big Ten                 0    1435
4      5         Georgia             SEC                 0    1386
5      6       Texas A&M             SEC                 0    1286
6      7      Notre Dame  FBS Independents               0    1139
7      8      Iowa State          Big 12                 0    1131
8      9  North Carolina             ACC                 0     999
9     10      Cincinnati  American Athletic              0     979
10    11         Florida             SEC                 0     870
11    12          Oregon          Pac-12                 0     842
12    13             LSU             SEC                 0     664
13    14             USC          Pac-12                 0     655
14    15       Wisconsin         Big Ten                 0     654
15    16           Miami             ACC                 0     575
16    17         Indiana         Big Ten                 0     573
17    18            Iowa         Big Ten                 0     554
18    19           Texas          Big 12                 0     427
19    20      Penn State         Big Ten                 0     422
20    21      Washington          Pac-12                 0     404
21    22   Oklahoma State          Big 12                 0     216
22    23       Louisiana        Sun Belt                 0     153
23    24  Coastal Carolina        Sun Belt                0     150
24    25        Ole Miss             SEC                 0     149

    season  week         poll
0     2021     1  Coaches Poll
1     2021     1  Coaches Poll
2     2021     1  Coaches Poll
3     2021     1  Coaches Poll
4     2021     1  Coaches Poll
5     2021     1  Coaches Poll
6     2021     1  Coaches Poll
7     2021     1  Coaches Poll
8     2021     1  Coaches Poll
9     2021     1  Coaches Poll
10    2021     1  Coaches Poll
11    2021     1  Coaches Poll
12    2021     1  Coaches Poll
13    2021     1  Coaches Poll
14    2021     1  Coaches Poll
15    2021     1  Coaches Poll
16    2021     1  Coaches Poll
17    2021     1  Coaches Poll
18    2021     1  Coaches Poll
19    2021     1  Coaches Poll
20    2021     1  Coaches Poll
21    2021     1  Coaches Poll
22    2021     1  Coaches Poll
23    2021     1  Coaches Poll
24    2021     1  Coaches Poll


Rankings for Week 2 - AP Top 25:
     rank        school      conference  first_place_votes  points  \
```

	rank	school	conference	first_place_votes	points
75	1	Alabama	SEC	59	1571
76	2	Georgia	SEC	4	1507
77	3	Ohio State	Big Ten	0	1437
78	4	Oklahoma	Big 12	0	1374
79	5	Texas A&M	SEC	0	1288
80	6	Clemson	ACC	0	1231
81	7	Cincinnati	American Athletic	0	1136
82	8	Notre Dame	FBS Independents	0	1070
83	9	Iowa State	Big 12	0	1045
84	10	Iowa	Big Ten	0	942
85	11	Penn State	Big Ten	0	908
86	12	Oregon	Pac-12	0	883
87	13	Florida	SEC	0	842
88	14	USC	Pac-12	0	789
89	15	Texas	Big 12	0	683
90	16	UCLA	Pac-12	0	668
91	17	Coastal Carolina	Sun Belt	0	384
92	18	Wisconsin	Big Ten	0	376
93	19	Virginia Tech	ACC	0	359
94	20	Ole Miss	SEC	0	335
95	21	Utah	Pac-12	0	334
96	22	Miami	ACC	0	229
97	23	Arizona State	Pac-12	0	222
98	24	North Carolina	ACC	0	198
99	25	Auburn	SEC	0	83

	season	week	poll
75	2021	2	AP Top 25
76	2021	2	AP Top 25
77	2021	2	AP Top 25
78	2021	2	AP Top 25
79	2021	2	AP Top 25
80	2021	2	AP Top 25
81	2021	2	AP Top 25
82	2021	2	AP Top 25
83	2021	2	AP Top 25
84	2021	2	AP Top 25
85	2021	2	AP Top 25
86	2021	2	AP Top 25
87	2021	2	AP Top 25
88	2021	2	AP Top 25
89	2021	2	AP Top 25
90	2021	2	AP Top 25
91	2021	2	AP Top 25
92	2021	2	AP Top 25
93	2021	2	AP Top 25
94	2021	2	AP Top 25
95	2021	2	AP Top 25
96	2021	2	AP Top 25
97	2021	2	AP Top 25
98	2021	2	AP Top 25
99	2021	2	AP Top 25

Rankings for Week 2 — Coaches Poll:

	rank	school	conference	first_place_votes	points	\
50	1	Alabama	SEC	64	1624	

	rank	school	conference	first_place_votes	points
51	2	Georgia	SEC	1	1537
52	3	Ohio State	Big Ten	0	1491
53	4	Oklahoma	Big 12	0	1397
54	5	Texas A&M	SEC	0	1334
55	6	Clemson	ACC	0	1239
56	7	Notre Dame	FBS Independents	0	1197
57	8	Cincinnati	American Athletic	0	1113
58	9	Florida	SEC	0	1058
59	10	Iowa State	Big 12	0	1057
60	11	Oregon	Pac-12	0	920
61	12	Iowa	Big Ten	0	914
62	13	Penn State	Big Ten	0	872
63	14	USC	Pac-12	0	828
64	15	Texas	Big 12	0	653
65	16	UCLA	Pac-12	0	538
66	17	Wisconsin	Big Ten	0	359
67	18	Utah	Pac-12	0	294
68	19	Coastal Carolina	Sun Belt	0	289
69	20	Ole Miss	SEC	0	285
70	21	Virginia Tech	ACC	0	274
71	22	North Carolina	ACC	0	252
72	23	Oklahoma State	Big 12	0	243
73	24	Miami	ACC	0	186
74	25	Arizona State	Pac-12	0	181

	season	week	poll
50	2021	2	Coaches Poll
51	2021	2	Coaches Poll
52	2021	2	Coaches Poll
53	2021	2	Coaches Poll
54	2021	2	Coaches Poll
55	2021	2	Coaches Poll
56	2021	2	Coaches Poll
57	2021	2	Coaches Poll
58	2021	2	Coaches Poll
59	2021	2	Coaches Poll
60	2021	2	Coaches Poll
61	2021	2	Coaches Poll
62	2021	2	Coaches Poll
63	2021	2	Coaches Poll
64	2021	2	Coaches Poll
65	2021	2	Coaches Poll
66	2021	2	Coaches Poll
67	2021	2	Coaches Poll
68	2021	2	Coaches Poll
69	2021	2	Coaches Poll
70	2021	2	Coaches Poll
71	2021	2	Coaches Poll
72	2021	2	Coaches Poll
73	2021	2	Coaches Poll
74	2021	2	Coaches Poll

Rankings for Week 3 — AP Top 25:

	rank	school	conference	first_place_votes	points	\
125	1	Alabama	SEC	60	1572	
126	2	Georgia	SEC	3	1514	

127	3	Oklahoma	Big 12	0	1402
128	4	Oregon	Pac-12	0	1355
129	5	Iowa	Big Ten	0	1263
130	6	Clemson	ACC	0	1246
131	7	Texas A&M	SEC	0	1206
132	8	Cincinnati	American Athletic	0	1149
133	9	Ohio State	Big Ten	0	1029
134	10	Penn State	Big Ten	0	1005
135	11	Florida	SEC	0	935
136	12	Notre Dame	FBS Independents	0	926
137	13	UCLA	Pac-12	0	804
138	14	Iowa State	Big 12	0	593
139	15	Virginia Tech	ACC	0	591
140	16	Coastal Carolina	Sun Belt	0	562
141	17	Ole Miss	SEC	0	550
142	18	Wisconsin	Big Ten	0	499
143	19	Arizona State	Pac-12	0	341
144	20	Arkansas	SEC	0	277
145	21	North Carolina	ACC	0	268
146	22	Auburn	SEC	0	233
147	23	BYU	FBS Independents	0	213
148	24	Miami	ACC	0	177
149	25	Michigan	Big Ten	0	163

	season	week	poll
125	2021	3	AP Top 25
126	2021	3	AP Top 25
127	2021	3	AP Top 25
128	2021	3	AP Top 25
129	2021	3	AP Top 25
130	2021	3	AP Top 25
131	2021	3	AP Top 25
132	2021	3	AP Top 25
133	2021	3	AP Top 25
134	2021	3	AP Top 25
135	2021	3	AP Top 25
136	2021	3	AP Top 25
137	2021	3	AP Top 25
138	2021	3	AP Top 25
139	2021	3	AP Top 25
140	2021	3	AP Top 25
141	2021	3	AP Top 25
142	2021	3	AP Top 25
143	2021	3	AP Top 25
144	2021	3	AP Top 25
145	2021	3	AP Top 25
146	2021	3	AP Top 25
147	2021	3	AP Top 25
148	2021	3	AP Top 25
149	2021	3	AP Top 25

Rankings for Week 3 — Coaches Poll:

	rank	school	conference	first_place_votes	points \
100	1	Alabama	SEC	64	1624
101	2	Georgia	SEC	1	1558
102	3	Oklahoma	Big 12	0	1454

```
103     4              Oregon          Pac-12               0    1356
104     5           Texas A&M             SEC               0    1307
105     6            Clemson              ACC               0    1279
106     7               Iowa         Big Ten               0    1165
107     8          Cincinnati  American Athletic           0    1114
108     9             Florida             SEC               0    1095
109    10          Notre Dame   FBS Independents           0    1059
110    11          Ohio State         Big Ten               0    1041
111    12          Penn State         Big Ten               0     995
112    13                UCLA          Pac-12               0     787
113    14           Iowa State         Big 12               0     611
114    15       Virginia Tech             ACC               0     591
115    16            Ole Miss             SEC               0     546
116    17           Wisconsin         Big Ten               0     537
117    18     Coastal Carolina        Sun Belt              0     492
118    19      North Carolina             ACC               0     300
119    20              Auburn             SEC               0     264
120    21        Arizona State         Pac-12               0     246
121    22       Oklahoma State         Big 12               0     222
122    23                 BYU   FBS Independents           0     213
123    24            Arkansas             SEC               0     196
124    25            Michigan         Big Ten               0     180

       season  week          poll
100     2021     3   Coaches Poll
101     2021     3   Coaches Poll
102     2021     3   Coaches Poll
103     2021     3   Coaches Poll
104     2021     3   Coaches Poll
105     2021     3   Coaches Poll
106     2021     3   Coaches Poll
107     2021     3   Coaches Poll
108     2021     3   Coaches Poll
109     2021     3   Coaches Poll
110     2021     3   Coaches Poll
111     2021     3   Coaches Poll
112     2021     3   Coaches Poll
113     2021     3   Coaches Poll
114     2021     3   Coaches Poll
115     2021     3   Coaches Poll
116     2021     3   Coaches Poll
117     2021     3   Coaches Poll
118     2021     3   Coaches Poll
119     2021     3   Coaches Poll
120     2021     3   Coaches Poll
121     2021     3   Coaches Poll
122     2021     3   Coaches Poll
123     2021     3   Coaches Poll
124     2021     3   Coaches Poll

Rankings for Week 4 - AP Top 25:
       rank          school      conference  first_place_votes   points  \
175     1          Alabama             SEC              59     1547
176     2          Georgia             SEC               3     1491
177     3           Oregon          Pac-12               0     1385
178     4         Oklahoma         Big 12               0     1302
```

```
179     5            Iowa           Big Ten                    0    1298
180     6       Penn State          Big Ten                    0    1197
181     7        Texas A&M              SEC                    0    1158
182     8       Cincinnati  American Athletic                  0    1145
183     9         Clemson              ACC                    0    1074
184    10       Ohio State          Big Ten                    0     976
185    11         Florida              SEC                    0     930
186    12       Notre Dame  FBS Independents                   0     874
187    13         Ole Miss             SEC                    0     717
188    14       Iowa State           Big 12                    0     664
189    15             BYU   FBS Independents                   0     603
190    16         Arkansas             SEC                    0     537
191    17  Coastal Carolina        Sun Belt                    0     526
192    18        Wisconsin          Big Ten                    0     513
193    19         Michigan          Big Ten                    0     456
194    20    Michigan State         Big Ten                    0     389
195    21    North Carolina            ACC                    0     306
196    22      Fresno State   Mountain West                    0     201
197    23           Auburn              SEC                    0     166
198    24             UCLA           Pac-12                    0     142
199    25     Kansas State           Big 12                    0     127


     season  week       poll
175    2021     4  AP Top 25
176    2021     4  AP Top 25
177    2021     4  AP Top 25
178    2021     4  AP Top 25
179    2021     4  AP Top 25
180    2021     4  AP Top 25
181    2021     4  AP Top 25
182    2021     4  AP Top 25
183    2021     4  AP Top 25
184    2021     4  AP Top 25
185    2021     4  AP Top 25
186    2021     4  AP Top 25
187    2021     4  AP Top 25
188    2021     4  AP Top 25
189    2021     4  AP Top 25
190    2021     4  AP Top 25
191    2021     4  AP Top 25
192    2021     4  AP Top 25
193    2021     4  AP Top 25
194    2021     4  AP Top 25
195    2021     4  AP Top 25
196    2021     4  AP Top 25
197    2021     4  AP Top 25
198    2021     4  AP Top 25
199    2021     4  AP Top 25


Rankings for Week 4 - Coaches Poll:
     rank         school       conference  first_place_votes   points  \
150     1        Alabama              SEC                 64     1616
151     2        Georgia              SEC                  1     1558
152     3       Oklahoma           Big 12                  0     1429
153     4         Oregon           Pac-12                  0     1427
154     5      Texas A&M              SEC                  0     1283
```

155	6	Iowa	Big Ten	0	1263
156	7	Clemson	ACC	0	1166
157	8	Penn State	Big Ten	0	1130
158	9	Cincinnati	American Athletic	0	1125
159	10	Notre Dame	FBS Independents	0	1048
160	11	Florida	SEC	0	1000
161	12	Ohio State	Big Ten	0	989
162	13	Ole Miss	SEC	0	759
163	14	Iowa State	Big 12	0	700
164	15	Wisconsin	Big Ten	0	589
165	16	BYU	FBS Independents	0	504
166	17	Coastal Carolina	Sun Belt	0	500
167	18	Arkansas	SEC	0	474
168	19	Michigan	Big Ten	0	423
169	20	North Carolina	ACC	0	411
170	21	Michigan State	Big Ten	0	344
171	22	Oklahoma State	Big 12	0	300
172	23	Auburn	SEC	0	171
173	24	UCLA	Pac-12	0	170
174	25	Fresno State	Mountain West	0	85

	season	week	poll
150	2021	4	Coaches Poll
151	2021	4	Coaches Poll
152	2021	4	Coaches Poll
153	2021	4	Coaches Poll
154	2021	4	Coaches Poll
155	2021	4	Coaches Poll
156	2021	4	Coaches Poll
157	2021	4	Coaches Poll
158	2021	4	Coaches Poll
159	2021	4	Coaches Poll
160	2021	4	Coaches Poll
161	2021	4	Coaches Poll
162	2021	4	Coaches Poll
163	2021	4	Coaches Poll
164	2021	4	Coaches Poll
165	2021	4	Coaches Poll
166	2021	4	Coaches Poll
167	2021	4	Coaches Poll
168	2021	4	Coaches Poll
169	2021	4	Coaches Poll
170	2021	4	Coaches Poll
171	2021	4	Coaches Poll
172	2021	4	Coaches Poll
173	2021	4	Coaches Poll
174	2021	4	Coaches Poll

Rankings for Week 5 — AP Top 25:

	rank	school	conference	first_place_votes	points \
226	1	Alabama	SEC	58	1546
227	2	Georgia	SEC	4	1492
228	3	Oregon	Pac-12	0	1411
229	4	Penn State	Big Ten	0	1283
230	5	Iowa	Big Ten	0	1277
231	6	Oklahoma	Big 12	0	1212

232	7	Cincinnati	American Athletic	0	1154
233	8	Arkansas	SEC	0	1094
234	9	Notre Dame	FBS Independents	0	1076
235	10	Florida	SEC	0	1019
236	11	Ohio State	Big Ten	0	1005
237	12	Ole Miss	SEC	0	852
238	13	BYU	FBS Independents	0	748
239	14	Michigan	Big Ten	0	677
240	15	Texas A&M	SEC	0	651
241	16	Coastal Carolina	Sun Belt	0	613
242	17	Michigan State	Big Ten	0	581
243	18	Fresno State	Mountain West	0	415
244	19	Oklahoma State	Big 12	0	341
245	20	UCLA	Pac-12	0	316
246	21	Baylor	Big 12	0	233
247	22	Auburn	SEC	0	197
248	23	NC State	ACC	0	145
249	24	Wake Forest	ACC	0	142
250	25	Clemson	ACC	0	138

	season	week	poll
226	2021	5	AP Top 25
227	2021	5	AP Top 25
228	2021	5	AP Top 25
229	2021	5	AP Top 25
230	2021	5	AP Top 25
231	2021	5	AP Top 25
232	2021	5	AP Top 25
233	2021	5	AP Top 25
234	2021	5	AP Top 25
235	2021	5	AP Top 25
236	2021	5	AP Top 25
237	2021	5	AP Top 25
238	2021	5	AP Top 25
239	2021	5	AP Top 25
240	2021	5	AP Top 25
241	2021	5	AP Top 25
242	2021	5	AP Top 25
243	2021	5	AP Top 25
244	2021	5	AP Top 25
245	2021	5	AP Top 25
246	2021	5	AP Top 25
247	2021	5	AP Top 25
248	2021	5	AP Top 25
249	2021	5	AP Top 25
250	2021	5	AP Top 25

Rankings for Week 5 — Coaches Poll:

	rank	school	conference	first_place_votes	points	\
200	1	Alabama	SEC	64	1624	
201	2	Georgia	SEC	1	1558	
202	3	Oregon	Pac-12	0	1467	
203	4	Oklahoma	Big 12	0	1395	
204	5	Iowa	Big Ten	0	1319	
205	6	Penn State	Big Ten	0	1286	
206	7	Notre Dame	FBS Independents	0	1187	

	rank	school	conference	first_place_votes	points
207	8	Cincinnati	American Athletic	0	1185
208	9	Florida	SEC	0	1101
209	10	Ohio State	Big Ten	0	1030
210	11	Arkansas	SEC	0	1016
211	12	Ole Miss	SEC	0	916
212	13	Texas A&M	SEC	0	744
214	14	Michigan	Big Ten	0	674
215	15	BYU	FBS Independents	0	670
216	16	Michigan State	Big Ten	0	583
217	16	Coastal Carolina	Sun Belt	0	583
218	18	Oklahoma State	Big 12	0	459
219	19	Clemson	ACC	0	389
220	20	UCLA	Pac-12	0	312
221	21	Fresno State	Mountain West	0	251
222	22	Auburn	SEC	0	244
223	23	Kentucky	SEC	0	179
224	24	Baylor	Big 12	0	134
225	25	Wake Forest	ACC	0	119

	season	week	poll
200	2021	5	Coaches Poll
201	2021	5	Coaches Poll
202	2021	5	Coaches Poll
203	2021	5	Coaches Poll
204	2021	5	Coaches Poll
205	2021	5	Coaches Poll
206	2021	5	Coaches Poll
207	2021	5	Coaches Poll
208	2021	5	Coaches Poll
209	2021	5	Coaches Poll
210	2021	5	Coaches Poll
211	2021	5	Coaches Poll
212	2021	5	Coaches Poll
214	2021	5	Coaches Poll
215	2021	5	Coaches Poll
216	2021	5	Coaches Poll
217	2021	5	Coaches Poll
218	2021	5	Coaches Poll
219	2021	5	Coaches Poll
220	2021	5	Coaches Poll
221	2021	5	Coaches Poll
222	2021	5	Coaches Poll
223	2021	5	Coaches Poll
224	2021	5	Coaches Poll
225	2021	5	Coaches Poll

Rankings for Week 6 — AP Top 25:

	rank	school	conference	first_place_votes	points	\
251	1	Alabama	SEC	53	1541	
252	2	Georgia	SEC	9	1497	
253	3	Iowa	Big Ten	0	1381	
254	4	Penn State	Big Ten	0	1360	
255	5	Cincinnati	American Athletic	0	1320	
256	6	Oklahoma	Big 12	0	1248	
257	7	Ohio State	Big Ten	0	1094	
258	8	Oregon	Pac-12	0	1069	

259	9	Michigan	Big Ten	0	1053
260	10	BYU	FBS Independents	0	990
261	11	Michigan State	Big Ten	0	852
262	12	Oklahoma State	Big 12	0	749
263	13	Arkansas	SEC	0	745
264	14	Notre Dame	FBS Independents	0	701
265	15	Coastal Carolina	Sun Belt	0	694
266	16	Kentucky	SEC	0	662
267	17	Ole Miss	SEC	0	601
268	18	Auburn	SEC	0	448
269	19	Wake Forest	ACC	0	412
270	20	Florida	SEC	0	343
271	21	Texas	Big 12	0	303
272	22	Arizona State	Pac-12	0	297
273	23	NC State	ACC	0	279
274	24	SMU	American Athletic	0	136
275	25	San Diego State	Mountain West	0	111

	season	week	poll
251	2021	6	AP Top 25
252	2021	6	AP Top 25
253	2021	6	AP Top 25
254	2021	6	AP Top 25
255	2021	6	AP Top 25
256	2021	6	AP Top 25
257	2021	6	AP Top 25
258	2021	6	AP Top 25
259	2021	6	AP Top 25
260	2021	6	AP Top 25
261	2021	6	AP Top 25
262	2021	6	AP Top 25
263	2021	6	AP Top 25
264	2021	6	AP Top 25
265	2021	6	AP Top 25
266	2021	6	AP Top 25
267	2021	6	AP Top 25
268	2021	6	AP Top 25
269	2021	6	AP Top 25
270	2021	6	AP Top 25
271	2021	6	AP Top 25
272	2021	6	AP Top 25
273	2021	6	AP Top 25
274	2021	6	AP Top 25
275	2021	6	AP Top 25

Rankings for Week 6 — Coaches Poll:

	rank	school	conference	first_place_votes	points	\
276	1	Alabama	SEC	63	1623
277	2	Georgia	SEC	2	1562
278	3	Iowa	Big Ten	0	1429
279	4	Penn State	Big Ten	0	1397
280	5	Oklahoma	Big 12	0	1380
281	6	Cincinnati	American Athletic	0	1358
282	7	Ohio State	Big Ten	0	1172
283	8	Michigan	Big Ten	0	1125
284	9	Oregon	Pac-12	0	1000

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285   10              BYU    FBS Independents              0    968
286   11   Michigan State            Big Ten              0    911
287   12   Oklahoma State             Big 12              0    798
288   13      Notre Dame    FBS Independents              0    777
289   14        Kentucky                SEC              0    758
290   15   Coastal Carolina       Sun Belt              0    699
291   16        Arkansas                SEC              0    652
292   17        Ole Miss                SEC              0    629
293   18         Florida                SEC              0    464
294   19          Auburn                SEC              0    463
295   20     Wake Forest                ACC              0    441
296   21         Clemson                ACC              0    288
297   22        NC State                ACC              0    257
298   23           Texas             Big 12              0    256
299   24             SMU   American Athletic              0    142
300   25    Arizona State             Pac-12              0    141


     season  week          poll
276    2021     6  Coaches Poll
277    2021     6  Coaches Poll
278    2021     6  Coaches Poll
279    2021     6  Coaches Poll
280    2021     6  Coaches Poll
281    2021     6  Coaches Poll
282    2021     6  Coaches Poll
283    2021     6  Coaches Poll
284    2021     6  Coaches Poll
285    2021     6  Coaches Poll
286    2021     6  Coaches Poll
287    2021     6  Coaches Poll
288    2021     6  Coaches Poll
289    2021     6  Coaches Poll
290    2021     6  Coaches Poll
291    2021     6  Coaches Poll
292    2021     6  Coaches Poll
293    2021     6  Coaches Poll
294    2021     6  Coaches Poll
295    2021     6  Coaches Poll
296    2021     6  Coaches Poll
297    2021     6  Coaches Poll
298    2021     6  Coaches Poll
299    2021     6  Coaches Poll
300    2021     6  Coaches Poll

Rankings for Week 7 - AP Top 25:
     rank          school          conference  first_place_votes  points  \
325     1         Georgia                SEC                 62    1550
326     2            Iowa            Big Ten                  0    1476
327     3      Cincinnati   American Athletic                0    1407
328     4        Oklahoma             Big 12                  0    1336
329     5         Alabama                SEC                  0    1286
330     6      Ohio State            Big Ten                  0    1157
331     7      Penn State            Big Ten                  0    1147
332     8        Michigan            Big Ten                  0    1139
333     9          Oregon             Pac-12                  0    1057
334    10   Michigan State            Big Ten                 0     992
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335   11        Kentucky              SEC              0    918
336   12    Oklahoma State          Big 12             0    830
337   13        Ole Miss              SEC              0    779
338   14      Notre Dame    FBS Independents           0    732
339   15  Coastal Carolina        Sun Belt            0    712
340   16      Wake Forest             ACC              0    526
341   17        Arkansas              SEC              0    470
342   18     Arizona State         Pac-12             0    428
343   19             BYU    FBS Independents           0    421
344   20         Florida              SEC              0    397
345   21       Texas A&M              SEC              0    348
346   22        NC State              ACC              0    265
347   23             SMU   American Athletic           0    225
348   24   San Diego State     Mountain West           0    176
349   25           Texas          Big 12             0    108


       season   week        poll
325     2021       7   AP Top 25
326     2021       7   AP Top 25
327     2021       7   AP Top 25
328     2021       7   AP Top 25
329     2021       7   AP Top 25
330     2021       7   AP Top 25
331     2021       7   AP Top 25
332     2021       7   AP Top 25
333     2021       7   AP Top 25
334     2021       7   AP Top 25
335     2021       7   AP Top 25
336     2021       7   AP Top 25
337     2021       7   AP Top 25
338     2021       7   AP Top 25
339     2021       7   AP Top 25
340     2021       7   AP Top 25
341     2021       7   AP Top 25
342     2021       7   AP Top 25
343     2021       7   AP Top 25
344     2021       7   AP Top 25
345     2021       7   AP Top 25
346     2021       7   AP Top 25
347     2021       7   AP Top 25
348     2021       7   AP Top 25
349     2021       7   AP Top 25


Rankings for Week 7 - Coaches Poll:
      rank         school        conference  first_place_votes  points  \
301     1        Georgia             SEC                64      1624
302     2           Iowa         Big Ten                 1      1537
303     3       Oklahoma          Big 12                 0      1452
304     4     Cincinnati   American Athletic             0      1418
305     5        Alabama             SEC                 0      1363
306     6      Ohio State        Big Ten                 0      1254
307     7        Michigan        Big Ten                 0      1237
308     8      Penn State        Big Ten                 0      1124
309     9   Michigan State       Big Ten                 0      1064
310    10          Oregon         Pac-12                 0      1004
311    11        Kentucky           SEC                  0       994
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	rank	school	conference	first_place_votes	points
312	12	Oklahoma State	Big 12	0	910
313	13	Notre Dame	FBS Independents	0	817
213	14	Ole Miss	SEC	0	741
314	15	Coastal Carolina	Sun Belt	0	708
315	16	Wake Forest	ACC	0	580
316	17	Florida	SEC	0	543
317	18	Texas A&M	SEC	0	396
318	19	Arkansas	SEC	0	386
319	20	BYU	FBS Independents	0	342
320	21	NC State	ACC	0	321
321	22	Arizona State	Pac-12	0	294
322	23	SMU	American Athletic	0	269
323	24	San Diego State	Mountain West	0	156
324	25	Clemson	ACC	0	155

	season	week	poll
301	2021	7	Coaches Poll
302	2021	7	Coaches Poll
303	2021	7	Coaches Poll
304	2021	7	Coaches Poll
305	2021	7	Coaches Poll
306	2021	7	Coaches Poll
307	2021	7	Coaches Poll
308	2021	7	Coaches Poll
309	2021	7	Coaches Poll
310	2021	7	Coaches Poll
311	2021	7	Coaches Poll
312	2021	7	Coaches Poll
313	2021	7	Coaches Poll
213	2021	7	Coaches Poll
314	2021	7	Coaches Poll
315	2021	7	Coaches Poll
316	2021	7	Coaches Poll
317	2021	7	Coaches Poll
318	2021	7	Coaches Poll
319	2021	7	Coaches Poll
320	2021	7	Coaches Poll
321	2021	7	Coaches Poll
322	2021	7	Coaches Poll
323	2021	7	Coaches Poll
324	2021	7	Coaches Poll

Rankings for Week 8 — AP Top 25:

	rank	school	conference	first_place_votes	points
375	1	Georgia	SEC	63	1575
376	2	Cincinnati	American Athletic	0	1483
377	3	Oklahoma	Big 12	0	1434
378	4	Alabama	SEC	0	1393
379	5	Ohio State	Big Ten	0	1252
380	6	Michigan	Big Ten	0	1214
381	7	Penn State	Big Ten	0	1116
382	8	Oklahoma State	Big 12	0	1082
383	9	Michigan State	Big Ten	0	1076
384	10	Oregon	Pac-12	0	1054
385	11	Iowa	Big Ten	0	1048
386	12	Ole Miss	SEC	0	879

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387    13        Notre Dame    FBS Independents                      0      763
388    14   Coastal Carolina            Sun Belt                     0      736
389    15          Kentucky                 SEC                      0      723
390    16        Wake Forest                 ACC                     0      629
391    17         Texas A&M                 SEC                      0      536
392    18          NC State                 ACC                      0      485
393    19            Auburn                 SEC                      0      397
394    20            Baylor              Big 12                      0      378
395    21               SMU   American Athletic                     0      358
396    22   San Diego State       Mountain West                     0      284
397    23        Pittsburgh                 ACC                      0      177
398    24     UT San Antonio       Conference USA                   0      104
399    25            Purdue             Big Ten                      0       68

     season  week       poll
375    2021     8  AP Top 25
376    2021     8  AP Top 25
377    2021     8  AP Top 25
378    2021     8  AP Top 25
379    2021     8  AP Top 25
380    2021     8  AP Top 25
381    2021     8  AP Top 25
382    2021     8  AP Top 25
383    2021     8  AP Top 25
384    2021     8  AP Top 25
385    2021     8  AP Top 25
386    2021     8  AP Top 25
387    2021     8  AP Top 25
388    2021     8  AP Top 25
389    2021     8  AP Top 25
390    2021     8  AP Top 25
391    2021     8  AP Top 25
392    2021     8  AP Top 25
393    2021     8  AP Top 25
394    2021     8  AP Top 25
395    2021     8  AP Top 25
396    2021     8  AP Top 25
397    2021     8  AP Top 25
398    2021     8  AP Top 25
399    2021     8  AP Top 25

Rankings for Week 8 — Coaches Poll:
     rank          school         conference  first_place_votes   points  \
350     1         Georgia                SEC                 65     1625
351     2        Oklahoma             Big 12                  0     1508
352     3      Cincinnati   American Athletic                 0     1467
353     4         Alabama                SEC                  0     1446
354     5      Ohio State            Big Ten                  0     1305
355     6        Michigan            Big Ten                  0     1299
356     7   Michigan State           Big Ten                  0     1158
357     8      Penn State            Big Ten                  0     1134
358     9   Oklahoma State          Big 12                    0     1093
359    10          Oregon             Pac-12                  0     1048
360    11            Iowa            Big Ten                  0     1031
361    12        Ole Miss                SEC                  0      826
362    13      Notre Dame    FBS Independents                 0      816
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363    14            Kentucky            SEC              0    763
364    15         Wake Forest           ACC              0    696
365    16    Coastal Carolina        Sun Belt           0    675
366    17            Texas A&M           SEC              0    580
367    18            NC State            ACC              0    528
368    19                 SMU    American Athletic       0    399
369    20              Baylor          Big 12             0    369
370    21     San Diego State     Mountain West          0    334
371    22              Auburn            SEC              0    315
372    23          Pittsburgh            ACC              0    192
373    24             Clemson            ACC              0    146
374    25     UT San Antonio     Conference USA          0     96


      season  week          poll
350    2021     8  Coaches Poll
351    2021     8  Coaches Poll
352    2021     8  Coaches Poll
353    2021     8  Coaches Poll
354    2021     8  Coaches Poll
355    2021     8  Coaches Poll
356    2021     8  Coaches Poll
357    2021     8  Coaches Poll
358    2021     8  Coaches Poll
359    2021     8  Coaches Poll
360    2021     8  Coaches Poll
361    2021     8  Coaches Poll
362    2021     8  Coaches Poll
363    2021     8  Coaches Poll
364    2021     8  Coaches Poll
365    2021     8  Coaches Poll
366    2021     8  Coaches Poll
367    2021     8  Coaches Poll
368    2021     8  Coaches Poll
369    2021     8  Coaches Poll
370    2021     8  Coaches Poll
371    2021     8  Coaches Poll
372    2021     8  Coaches Poll
373    2021     8  Coaches Poll
374    2021     8  Coaches Poll


Rankings for Week 9 — AP Top 25:
      rank           school        conference  first_place_votes   points  \
425     1          Georgia               SEC                63     1575
426     2       Cincinnati   American Athletic              0     1477
427     3          Alabama               SEC                 0     1417
428     4         Oklahoma            Big 12                 0     1383
429     5       Ohio State           Big Ten                0     1311
430     6         Michigan           Big Ten                0     1270
431     7           Oregon            Pac-12                0     1165
432     8    Michigan State          Big Ten                0     1160
433     9             Iowa           Big Ten                0     1035
434    10          Ole Miss              SEC                0     1034
435    11        Notre Dame   FBS Independents             0      922
436    12          Kentucky              SEC                0      849
437    13       Wake Forest              ACC                0      801
438    14         Texas A&M              SEC                0      700
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439	15	Oklahoma State	Big 12		0	682
440	16	Baylor	Big 12		0	513
441	17	Pittsburgh	ACC		0	510
442	18	Auburn	SEC		0	481
443	19	SMU	American Athletic		0	473
444	20	Penn State	Big Ten		0	471
445	21	San Diego State	Mountain West		0	390
446	22	Iowa State	Big 12		0	298
447	23	UT San Antonio	Conference USA		0	235
448	24	Coastal Carolina	Sun Belt		0	132
449	25	BYU	FBS Independents		0	44

	season	week	poll
425	2021	9	AP Top 25
426	2021	9	AP Top 25
427	2021	9	AP Top 25
428	2021	9	AP Top 25
429	2021	9	AP Top 25
430	2021	9	AP Top 25
431	2021	9	AP Top 25
432	2021	9	AP Top 25
433	2021	9	AP Top 25
434	2021	9	AP Top 25
435	2021	9	AP Top 25
436	2021	9	AP Top 25
437	2021	9	AP Top 25
438	2021	9	AP Top 25
439	2021	9	AP Top 25
440	2021	9	AP Top 25
441	2021	9	AP Top 25
442	2021	9	AP Top 25
443	2021	9	AP Top 25
444	2021	9	AP Top 25
445	2021	9	AP Top 25
446	2021	9	AP Top 25
447	2021	9	AP Top 25
448	2021	9	AP Top 25
449	2021	9	AP Top 25

Rankings for Week 9 — Coaches Poll:

	rank	school	conference	first_place_votes	points	\
400	1	Georgia	SEC	64	1600	
401	2	Cincinnati	American Athletic	0	1469	
402	3	Alabama	SEC	0	1439	
403	4	Oklahoma	Big 12	0	1430	
404	5	Ohio State	Big Ten	0	1338	
405	6	Michigan	Big Ten	0	1313	
406	7	Michigan State	Big Ten	0	1208	
407	8	Oregon	Pac-12	0	1139	
408	9	Ole Miss	SEC	0	1019	
409	10	Iowa	Big Ten	0	1008	
410	11	Notre Dame	FBS Independents	0	950	
411	12	Kentucky	SEC	0	857	
412	13	Wake Forest	ACC	0	838	
413	14	Texas A&M	SEC	0	736	
414	15	Oklahoma State	Big 12	0	684	

	rank	school	conference		points
415	16	SMU	American Athletic	0	535
416	17	Penn State	Big Ten	0	517
417	18	Baylor	Big 12	0	509
418	19	Pittsburgh	ACC	0	487
419	20	San Diego State	Mountain West	0	431
420	21	Auburn	SEC	0	418
421	22	UT San Antonio	Conference USA	0	219
422	23	Iowa State	Big 12	0	190
423	24	Coastal Carolina	Sun Belt	0	134
424	25	NC State	ACC	0	73

	season	week	poll
400	2021	9	Coaches Poll
401	2021	9	Coaches Poll
402	2021	9	Coaches Poll
403	2021	9	Coaches Poll
404	2021	9	Coaches Poll
405	2021	9	Coaches Poll
406	2021	9	Coaches Poll
407	2021	9	Coaches Poll
408	2021	9	Coaches Poll
409	2021	9	Coaches Poll
410	2021	9	Coaches Poll
411	2021	9	Coaches Poll
412	2021	9	Coaches Poll
413	2021	9	Coaches Poll
414	2021	9	Coaches Poll
415	2021	9	Coaches Poll
416	2021	9	Coaches Poll
417	2021	9	Coaches Poll
418	2021	9	Coaches Poll
419	2021	9	Coaches Poll
420	2021	9	Coaches Poll
421	2021	9	Coaches Poll
422	2021	9	Coaches Poll
423	2021	9	Coaches Poll
424	2021	9	Coaches Poll

Rankings for Week 10 — AP Top 25:

	rank	school	conference	first_place_votes	points \
475	1	Georgia	SEC	63	1575
476	2	Cincinnati	American Athletic	0	1455
477	3	Alabama	SEC	0	1413
478	4	Oklahoma	Big 12	0	1382
479	5	Michigan State	Big Ten	0	1340
480	6	Ohio State	Big Ten	0	1296
481	7	Oregon	Pac-12	0	1233
482	8	Notre Dame	FBS Independents	0	1067
483	9	Michigan	Big Ten	0	1048
484	10	Wake Forest	ACC	0	1025
485	11	Oklahoma State	Big 12	0	915
486	12	Auburn	SEC	0	853
487	13	Texas A&M	SEC	0	847
488	14	Baylor	Big 12	0	833
489	15	Ole Miss	SEC	0	678
490	16	UT San Antonio	Conference USA	0	460

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491    17            BYU   FBS Independents              0     450
492    18        Kentucky               SEC              0     409
493    19            Iowa           Big Ten              0     342
494    20         Houston  American Athletic             0     338
495    21  Coastal Carolina         Sun Belt             0     237
496    22      Penn State           Big Ten              0     182
497    23             SMU  American Athletic             0     176
498    24       Louisiana          Sun Belt              0     161
499    25     Fresno State     Mountain West             0     151


       season  week         poll
475      2021    10   AP Top 25
476      2021    10   AP Top 25
477      2021    10   AP Top 25
478      2021    10   AP Top 25
479      2021    10   AP Top 25
480      2021    10   AP Top 25
481      2021    10   AP Top 25
482      2021    10   AP Top 25
483      2021    10   AP Top 25
484      2021    10   AP Top 25
485      2021    10   AP Top 25
486      2021    10   AP Top 25
487      2021    10   AP Top 25
488      2021    10   AP Top 25
489      2021    10   AP Top 25
490      2021    10   AP Top 25
491      2021    10   AP Top 25
492      2021    10   AP Top 25
493      2021    10   AP Top 25
494      2021    10   AP Top 25
495      2021    10   AP Top 25
496      2021    10   AP Top 25
497      2021    10   AP Top 25
498      2021    10   AP Top 25
499      2021    10   AP Top 25


Rankings for Week 10 — Coaches Poll:
       rank            school          conference  first_place_votes   points  \
450       1          Georgia                 SEC                  64     1600
451       2       Cincinnati   American Athletic                   0     1460
452       3          Alabama                 SEC                   0     1453
453       4         Oklahoma              Big 12                   0     1423
454       5       Ohio State             Big Ten                   0     1336
455       6   Michigan State             Big Ten                   0     1325
456       7           Oregon              Pac-12                   0     1198
457       8       Notre Dame   FBS Independents                    0     1095
458       9      Wake Forest                 ACC                   0     1051
459      10         Michigan             Big Ten                   0     1050
460      11   Oklahoma State              Big 12                   0      922
461      12        Texas A&M                 SEC                   0      910
462      13           Baylor              Big 12                   0      815
463      14           Auburn                 SEC                   0      802
464      15          Ole Miss                SEC                   0      680
465      16             Iowa             Big Ten                   0      512
466      17         Kentucky                 SEC                   0      497
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467   18    UT San Antonio      Conference USA               0      401
468   19          Houston    American Athletic               0      349
469   20              BYU     FBS Independents               0      310
470   21   Coastal Carolina           Sun Belt               0      301
471   22          NC State                ACC               0      265
472   23        Penn State            Big Ten               0      215
473   24              SMU    American Athletic               0      192
474   25        Pittsburgh                ACC               0      162


      season  week         poll
450     2021    10  Coaches Poll
451     2021    10  Coaches Poll
452     2021    10  Coaches Poll
453     2021    10  Coaches Poll
454     2021    10  Coaches Poll
455     2021    10  Coaches Poll
456     2021    10  Coaches Poll
457     2021    10  Coaches Poll
458     2021    10  Coaches Poll
459     2021    10  Coaches Poll
460     2021    10  Coaches Poll
461     2021    10  Coaches Poll
462     2021    10  Coaches Poll
463     2021    10  Coaches Poll
464     2021    10  Coaches Poll
465     2021    10  Coaches Poll
466     2021    10  Coaches Poll
467     2021    10  Coaches Poll
468     2021    10  Coaches Poll
469     2021    10  Coaches Poll
470     2021    10  Coaches Poll
471     2021    10  Coaches Poll
472     2021    10  Coaches Poll
473     2021    10  Coaches Poll
474     2021    10  Coaches Poll


Rankings for Week 11 — AP Top 25:
      rank         school       conference  first_place_votes   points  \
526      1        Georgia              SEC                 63     1575
527      2     Cincinnati    American Athletic              0     1440
528      3        Alabama              SEC                  0     1436
529      4       Oklahoma           Big 12                  0     1406
530      5         Oregon           Pac-12                  0     1319
531      6     Ohio State          Big Ten                  0     1293
532      7     Notre Dame     FBS Independents              0     1139
533      8  Michigan State         Big Ten                  0     1096
534      9       Michigan          Big Ten                  0     1072
535     10   Oklahoma State         Big 12                  0     1038
536     11       Texas A&M             SEC                  0     1006
537     12        Ole Miss             SEC                  0      837
538     13     Wake Forest              ACC                 0      763
539     14             BYU     FBS Independents              0      636
540     15   UT San Antonio     Conference USA              0      606
541     16          Auburn             SEC                  0      478
542     17         Houston    American Athletic              0      467
543     18          Baylor           Big 12                  0      464
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544   19          Iowa          Big Ten                   0     437
545   20       Wisconsin         Big Ten                   0     286
546   21        NC State           ACC                     0     268
547   22  Coastal Carolina      Sun Belt                   0     264
548   23       Penn State        Big Ten                   0     245
549   24       Louisiana        Sun Belt                   0     208
550   25       Pittsburgh          ACC                     0     194


      season  week       poll
526    2021    11  AP Top 25
527    2021    11  AP Top 25
528    2021    11  AP Top 25
529    2021    11  AP Top 25
530    2021    11  AP Top 25
531    2021    11  AP Top 25
532    2021    11  AP Top 25
533    2021    11  AP Top 25
534    2021    11  AP Top 25
535    2021    11  AP Top 25
536    2021    11  AP Top 25
537    2021    11  AP Top 25
538    2021    11  AP Top 25
539    2021    11  AP Top 25
540    2021    11  AP Top 25
541    2021    11  AP Top 25
542    2021    11  AP Top 25
543    2021    11  AP Top 25
544    2021    11  AP Top 25
545    2021    11  AP Top 25
546    2021    11  AP Top 25
547    2021    11  AP Top 25
548    2021    11  AP Top 25
549    2021    11  AP Top 25
550    2021    11  AP Top 25


Rankings for Week 11 — Coaches Poll:
     rank          school        conference  first_place_votes  points  \
501    1          Georgia              SEC                 64    1600
502    2          Alabama              SEC                  0    1483
503    3       Cincinnati  American Athletic              0    1430
504    4         Oklahoma           Big 12                  0    1423
505    5       Ohio State          Big Ten                  0    1356
506    6           Oregon           Pac-12                  0    1291
507    7       Notre Dame  FBS Independents               0    1182
508    8         Michigan          Big Ten                  0    1099
509    9   Michigan State          Big Ten                  0    1074
510   10   Oklahoma State           Big 12                  0    1045
511   11        Texas A&M              SEC                  0    1023
512   12         Ole Miss              SEC                  0     862
513   13      Wake Forest              ACC                  0     769
514   14            Iowa           Big Ten                  0     636
515   15             BYU  FBS Independents               0     552
516   16   UT San Antonio     Conference USA              0     525
517   17          Houston  American Athletic              0     472
518   18           Baylor           Big 12                  0     449
519   19         NC State              ACC                  0     445
```

```
520   20          Auburn           SEC              0      382
521   21   Coastal Carolina      Sun Belt          0      335
522   22        Pittsburgh         ACC              0      293
523   23        Penn State       Big Ten            0      249
524   24         Wisconsin       Big Ten            0      177
525   25         Louisiana       Sun Belt          0      164


      season  week         poll
501    2021    11   Coaches Poll
502    2021    11   Coaches Poll
503    2021    11   Coaches Poll
504    2021    11   Coaches Poll
505    2021    11   Coaches Poll
506    2021    11   Coaches Poll
507    2021    11   Coaches Poll
508    2021    11   Coaches Poll
509    2021    11   Coaches Poll
510    2021    11   Coaches Poll
511    2021    11   Coaches Poll
512    2021    11   Coaches Poll
513    2021    11   Coaches Poll
514    2021    11   Coaches Poll
515    2021    11   Coaches Poll
516    2021    11   Coaches Poll
517    2021    11   Coaches Poll
518    2021    11   Coaches Poll
519    2021    11   Coaches Poll
520    2021    11   Coaches Poll
521    2021    11   Coaches Poll
522    2021    11   Coaches Poll
523    2021    11   Coaches Poll
524    2021    11   Coaches Poll
525    2021    11   Coaches Poll


Rankings for Week 12 — AP Top 25:
     rank          school          conference  first_place_votes  points  \
576    1           Georgia              SEC              62    1550
577    2           Alabama              SEC               0    1449
578    3         Cincinnati  American Athletic           0    1420
579    4            Oregon           Pac-12              0    1353
580    5         Ohio State          Big Ten            0    1341
581    6         Notre Dame  FBS Independents            0    1175
582    7      Michigan State         Big Ten            0    1161
583    8           Michigan          Big Ten            0    1134
584    9      Oklahoma State         Big 12             0    1106
585   10           Ole Miss             SEC              0     943
586   11            Baylor            Big 12             0     882
587   12          Oklahoma           Big 12             0     870
588   13        Wake Forest            ACC              0     851
589   14               BYU   FBS Independents           0     671
590   15     UT San Antonio    Conference USA           0     591
591   16          Texas A&M            SEC              0     583
592   17           Houston   American Athletic          0     509
593   18              Iowa           Big Ten            0     491
594   19         Wisconsin          Big Ten            0     467
595   20        Pittsburgh             ACC              0     358
```

```
596   21          Arkansas             SEC              0       277
597   22          Louisiana         Sun Belt            0       261
598   23  San Diego State        Mountain West          0       239
599   24              Utah           Pac-12             0       141
600   25          NC State            ACC               0        95


     season  week       poll
576    2021    12  AP Top 25
577    2021    12  AP Top 25
578    2021    12  AP Top 25
579    2021    12  AP Top 25
580    2021    12  AP Top 25
581    2021    12  AP Top 25
582    2021    12  AP Top 25
583    2021    12  AP Top 25
584    2021    12  AP Top 25
585    2021    12  AP Top 25
586    2021    12  AP Top 25
587    2021    12  AP Top 25
588    2021    12  AP Top 25
589    2021    12  AP Top 25
590    2021    12  AP Top 25
591    2021    12  AP Top 25
592    2021    12  AP Top 25
593    2021    12  AP Top 25
594    2021    12  AP Top 25
595    2021    12  AP Top 25
596    2021    12  AP Top 25
597    2021    12  AP Top 25
598    2021    12  AP Top 25
599    2021    12  AP Top 25
600    2021    12  AP Top 25


Rankings for Week 12 - Coaches Poll:
     rank          school        conference  first_place_votes   points  \
551     1         Georgia              SEC                 62     1550
552     2         Alabama              SEC                  0     1464
553     3      Cincinnati  American Athletic               0     1401
554     4      Ohio State          Big Ten                  0     1363
555     5          Oregon           Pac-12                  0     1320
556     6      Notre Dame  FBS Independents                 0     1181
557     7        Michigan          Big Ten                  0     1153
558     8  Michigan State          Big Ten                  0     1139
559     9  Oklahoma State           Big 12                  0     1102
560    10         Ole Miss             SEC                  0      948
561    11        Oklahoma           Big 12                  0      878
562    12     Wake Forest             ACC                   0      847
563    13          Baylor           Big 12                  0      826
564    14            Iowa          Big Ten                  0      637
565    15             BYU  FBS Independents                 0      605
566    16       Texas A&M             SEC                   0      560
567    17         Houston  American Athletic               0      541
568    18  UT San Antonio    Conference USA                0      528
569    19      Pittsburgh             ACC                   0      446
570    20       Wisconsin          Big Ten                  0      407
571    21        Louisiana         Sun Belt                 0      239
```

```
572    22         Arkansas              SEC          0      212
573    23  San Diego State    Mountain West          0      210
574    24         NC State              ACC          0      138
575    25            Utah           Pac-12          0      133


        season  week         poll
551     2021    12   Coaches Poll
552     2021    12   Coaches Poll
553     2021    12   Coaches Poll
554     2021    12   Coaches Poll
555     2021    12   Coaches Poll
556     2021    12   Coaches Poll
557     2021    12   Coaches Poll
558     2021    12   Coaches Poll
559     2021    12   Coaches Poll
560     2021    12   Coaches Poll
561     2021    12   Coaches Poll
562     2021    12   Coaches Poll
563     2021    12   Coaches Poll
564     2021    12   Coaches Poll
565     2021    12   Coaches Poll
566     2021    12   Coaches Poll
567     2021    12   Coaches Poll
568     2021    12   Coaches Poll
569     2021    12   Coaches Poll
570     2021    12   Coaches Poll
571     2021    12   Coaches Poll
572     2021    12   Coaches Poll
573     2021    12   Coaches Poll
574     2021    12   Coaches Poll
575     2021    12   Coaches Poll


Rankings for Week 13 — AP Top 25:
      rank          school         conference  first_place_votes    points  \
626     1         Georgia               SEC            62      1550
627     2      Ohio State           Big Ten             0      1434
628     3         Alabama               SEC             0      1423
629     4      Cincinnati  American Athletic             0      1416
630     5      Notre Dame   FBS Independents             0      1262
631     6        Michigan           Big Ten             0      1246
632     7   Oklahoma State           Big 12             0      1209
633     8        Ole Miss               SEC             0      1060
634     9          Baylor           Big 12             0      1046
635    10        Oklahoma           Big 12             0      1001
636    11          Oregon           Pac-12             0       849
637    12   Michigan State         Big Ten             0       778
638    13             BYU   FBS Independents             0       771
639    14        Texas A&M             SEC             0       628
640    15   UT San Antonio    Conference USA             0       583
641    16            Utah           Pac-12             0       561
642    17            Iowa          Big Ten             0       538
643    18       Wisconsin          Big Ten             0       517
644    19         Houston  American Athletic             0       516
645    20      Pittsburgh             ACC             0       445
646    21      Wake Forest             ACC             0       344
647    22  San Diego State    Mountain West             0       273
```

```
648    23        Louisiana       Sun Belt              0      246
649    24         NC State            ACC              0      141
650    25         Arkansas            SEC              0      105


       season  week       poll
626     2021    13   AP Top 25
627     2021    13   AP Top 25
628     2021    13   AP Top 25
629     2021    13   AP Top 25
630     2021    13   AP Top 25
631     2021    13   AP Top 25
632     2021    13   AP Top 25
633     2021    13   AP Top 25
634     2021    13   AP Top 25
635     2021    13   AP Top 25
636     2021    13   AP Top 25
637     2021    13   AP Top 25
638     2021    13   AP Top 25
639     2021    13   AP Top 25
640     2021    13   AP Top 25
641     2021    13   AP Top 25
642     2021    13   AP Top 25
643     2021    13   AP Top 25
644     2021    13   AP Top 25
645     2021    13   AP Top 25
646     2021    13   AP Top 25
647     2021    13   AP Top 25
648     2021    13   AP Top 25
649     2021    13   AP Top 25
650     2021    13   AP Top 25
```

Rankings for Week 13 — Coaches Poll:

```
      rank          school        conference  first_place_votes   points  \
601     1          Georgia               SEC               62     1550
602     2          Alabama               SEC                0     1450
603     3       Ohio State           Big Ten                0     1428
604     4       Cincinnati  American Athletic                0     1388
605     5       Notre Dame   FBS Independents                0     1258
606     6         Michigan           Big Ten                0     1250
607     7    Oklahoma State            Big 12                0     1210
608     8         Ole Miss               SEC                0     1049
609     9         Oklahoma            Big 12                0     1010
610    10           Baylor            Big 12                0      977
611    11           Oregon           Pac-12                0      864
612    12             Iowa           Big Ten                0      722
613    13    Michigan State           Big Ten                0      698
614    14        Texas A&M               SEC                0      683
615    15              BYU   FBS Independents                0      675
616    16          Houston  American Athletic                0      572
617    17       Pittsburgh               ACC                0      507
618    18        Wisconsin           Big Ten                0      485
619    19             Utah           Pac-12                0      478
620    20    UT San Antonio   Conference USA                0      475
621    21      Wake Forest               ACC                0      404
622    22    San Diego State    Mountain West                0      257
623    23         Louisiana         Sun Belt                0      236
```

```
624    24          NC State            ACC              0      196
625    25          Kentucky            SEC              0       91


       season  week          poll
601    2021     13   Coaches Poll
602    2021     13   Coaches Poll
603    2021     13   Coaches Poll
604    2021     13   Coaches Poll
605    2021     13   Coaches Poll
606    2021     13   Coaches Poll
607    2021     13   Coaches Poll
608    2021     13   Coaches Poll
609    2021     13   Coaches Poll
610    2021     13   Coaches Poll
611    2021     13   Coaches Poll
612    2021     13   Coaches Poll
613    2021     13   Coaches Poll
614    2021     13   Coaches Poll
615    2021     13   Coaches Poll
616    2021     13   Coaches Poll
617    2021     13   Coaches Poll
618    2021     13   Coaches Poll
619    2021     13   Coaches Poll
620    2021     13   Coaches Poll
621    2021     13   Coaches Poll
622    2021     13   Coaches Poll
623    2021     13   Coaches Poll
624    2021     13   Coaches Poll
625    2021     13   Coaches Poll


Rankings for Week 14 – AP Top 25:
     rank          school       conference  first_place_votes    points  \
676     1          Georgia             SEC              62      1550
677     2          Michigan        Big Ten               0      1449
678     3          Cincinnati  American Athletic         0      1422
679     4          Alabama             SEC               0      1388
680     5    Oklahoma State       Big 12               0      1291
681     6        Notre Dame  FBS Independents            0      1264
682     7        Ohio State       Big Ten               0      1147
683     8          Ole Miss             SEC               0      1105
684     9          Baylor       Big 12               0      1066
685    10          Oregon       Pac-12               0       932
686    11    Michigan State       Big Ten               0       877
687    12             BYU  FBS Independents            0       839
688    13          Oklahoma       Big 12               0       837
689    14            Utah       Pac-12               0       667
690    15            Iowa       Big Ten               0       662
691    16          Houston  American Athletic         0       603
692    17        Pittsburgh             ACC               0       589
693    18      Wake Forest             ACC               0       485
694    19   San Diego State   Mountain West            0       416
695    20          Louisiana        Sun Belt            0       317
696    21          NC State             ACC               0       310
697    22          Clemson             ACC               0       269
698    23          Arkansas             SEC               0       214
699    24        Texas A&M             SEC               0       117
```

```
700    25          Kentucky              SEC              0      82


       season  week        poll
676    2021    14  AP Top 25
677    2021    14  AP Top 25
678    2021    14  AP Top 25
679    2021    14  AP Top 25
680    2021    14  AP Top 25
681    2021    14  AP Top 25
682    2021    14  AP Top 25
683    2021    14  AP Top 25
684    2021    14  AP Top 25
685    2021    14  AP Top 25
686    2021    14  AP Top 25
687    2021    14  AP Top 25
688    2021    14  AP Top 25
689    2021    14  AP Top 25
690    2021    14  AP Top 25
691    2021    14  AP Top 25
692    2021    14  AP Top 25
693    2021    14  AP Top 25
694    2021    14  AP Top 25
695    2021    14  AP Top 25
696    2021    14  AP Top 25
697    2021    14  AP Top 25
698    2021    14  AP Top 25
699    2021    14  AP Top 25
700    2021    14  AP Top 25


Rankings for Week 14 — Coaches Poll:
     rank           school         conference  first_place_votes   points  \
651     1          Georgia                SEC              62      1550
652     2          Alabama                SEC               0      1440
653     3         Michigan            Big Ten               0      1408
654     4       Cincinnati  American Athletic               0      1399
655     5    Oklahoma State            Big 12               0      1285
656     6       Notre Dame   FBS Independents               0      1250
657     7       Ohio State            Big Ten               0      1133
658     8         Ole Miss                SEC               0      1097
659     9           Baylor            Big 12               0      1046
660    10           Oregon            Pac-12               0       932
661    11         Oklahoma            Big 12               0       851
662    12             Iowa            Big Ten               0       845
663    13   Michigan State            Big Ten               0       840
664    14              BYU   FBS Independents               0       741
665    15       Pittsburgh                ACC               0       640
666    16          Houston  American Athletic               0       607
667    17             Utah            Pac-12               0       596
668    18      Wake Forest                ACC               0       531
669    19  San Diego State      Mountain West               0       396
670    20         NC State                ACC               0       334
671    21        Louisiana           Sun Belt               0       268
672    22         Kentucky                SEC               0       226
673    23        Texas A&M                SEC               0       202
674    24          Clemson                ACC               0       170
675    25         Arkansas                SEC               0       128
```

```
     season  week           poll
651    2021    14  Coaches Poll
652    2021    14  Coaches Poll
653    2021    14  Coaches Poll
654    2021    14  Coaches Poll
655    2021    14  Coaches Poll
656    2021    14  Coaches Poll
657    2021    14  Coaches Poll
658    2021    14  Coaches Poll
659    2021    14  Coaches Poll
660    2021    14  Coaches Poll
661    2021    14  Coaches Poll
662    2021    14  Coaches Poll
663    2021    14  Coaches Poll
664    2021    14  Coaches Poll
665    2021    14  Coaches Poll
666    2021    14  Coaches Poll
667    2021    14  Coaches Poll
668    2021    14  Coaches Poll
669    2021    14  Coaches Poll
670    2021    14  Coaches Poll
671    2021    14  Coaches Poll
672    2021    14  Coaches Poll
673    2021    14  Coaches Poll
674    2021    14  Coaches Poll
675    2021    14  Coaches Poll


Rankings for Week 15 — AP Top 25:
     rank          school          conference  first_place_votes  points  \
726     1         Alabama                 SEC                 50    1535
727     2        Michigan             Big Ten                  9    1480
728     3         Georgia                 SEC                  0    1408
729     4      Cincinnati   American Athletic                  3    1404
730     5      Notre Dame   FBS Independents                  0    1280
731     6          Baylor             Big 12                  0    1228
732     7      Ohio State             Big Ten                  0    1177
733     8        Ole Miss                 SEC                  0    1101
734     9   Oklahoma State             Big 12                  0    1060
735    10            Utah             Pac-12                  0     929
736    11  Michigan State             Big Ten                  0     895
737    12             BYU   FBS Independents                  0     866
738    13      Pittsburgh                 ACC                  0     838
739    14        Oklahoma             Big 12                  0     807
740    15          Oregon             Pac-12                  0     594
741    16       Louisiana            Sun Belt                  0     490
742    17            Iowa             Big Ten                  0     446
743    18        NC State                 ACC                  0     404
744    19         Clemson                 ACC                  0     395
745    20      Wake Forest                ACC                  0     393
746    21         Houston   American Athletic                  0     358
747    22        Arkansas                 SEC                  0     279
748    23       Texas A&M                 SEC                  0     171
749    24   UT San Antonio    Conference USA                  0     146
500    25        Kentucky                 SEC                  0     129
```

```
        season  week        poll
726     2021    15   AP Top 25
727     2021    15   AP Top 25
728     2021    15   AP Top 25
729     2021    15   AP Top 25
730     2021    15   AP Top 25
731     2021    15   AP Top 25
732     2021    15   AP Top 25
733     2021    15   AP Top 25
734     2021    15   AP Top 25
735     2021    15   AP Top 25
736     2021    15   AP Top 25
737     2021    15   AP Top 25
738     2021    15   AP Top 25
739     2021    15   AP Top 25
740     2021    15   AP Top 25
741     2021    15   AP Top 25
742     2021    15   AP Top 25
743     2021    15   AP Top 25
744     2021    15   AP Top 25
745     2021    15   AP Top 25
746     2021    15   AP Top 25
747     2021    15   AP Top 25
748     2021    15   AP Top 25
749     2021    15   AP Top 25
500     2021    15   AP Top 25


Rankings for Week 15 — Coaches Poll:
     rank        school         conference  first_place_votes  points  \
701     1       Alabama                SEC                 54    1540
702     2      Michigan            Big Ten                  5    1474
703     3       Georgia                SEC                  0    1420
704     4    Cincinnati  American Athletic                  3    1392
705     5    Notre Dame   FBS Independents                  0    1266
706     6        Baylor             Big 12                  0    1204
707     7    Ohio State            Big Ten                  0    1170
708     8      Ole Miss                SEC                  0    1134
709     9 Oklahoma State            Big 12                  0    1036
710    10 Michigan State            Big Ten                 0     903
711    11          Utah             Pac-12                  0     893
712    12     Pittsburgh                ACC                 0     886
713    13      Oklahoma             Big 12                  0     853
714    14           BYU   FBS Independents                 0     792
715    15        Oregon             Pac-12                  0     589
716    16          Iowa            Big Ten                  0     561
717    17     Louisiana           Sun Belt                 0     444
718    18      NC State                ACC                  0     436
719    19   Wake Forest                ACC                 0     389
720    20      Kentucky                SEC                  0     327
721    21       Houston  American Athletic                 0     315
722    22       Clemson                ACC                 0     252
723    23      Texas A&M               SEC                 0     239
724    24      Arkansas                SEC                 0     185
725    25 UT San Antonio     Conference USA                0     146


        season  week         poll
```

```
701     2021     15  Coaches Poll
702     2021     15  Coaches Poll
703     2021     15  Coaches Poll
704     2021     15  Coaches Poll
705     2021     15  Coaches Poll
706     2021     15  Coaches Poll
707     2021     15  Coaches Poll
708     2021     15  Coaches Poll
709     2021     15  Coaches Poll
710     2021     15  Coaches Poll
711     2021     15  Coaches Poll
712     2021     15  Coaches Poll
713     2021     15  Coaches Poll
714     2021     15  Coaches Poll
715     2021     15  Coaches Poll
716     2021     15  Coaches Poll
717     2021     15  Coaches Poll
718     2021     15  Coaches Poll
719     2021     15  Coaches Poll
720     2021     15  Coaches Poll
721     2021     15  Coaches Poll
722     2021     15  Coaches Poll
723     2021     15  Coaches Poll
724     2021     15  Coaches Poll
725     2021     15  Coaches Poll

Unique weeks in the rankings data: [ 1  2  3  4  5  7  6  8  9 10 15 11 12 1
3 14]
Unique polls in the rankings data: ['Coaches Poll' 'AP Top 25']
```

In [198…
```python
# Load the cfb_rankings_2021 table from the database, filtering for "AP Top
query = """
SELECT * FROM cfb_rankings_2021
WHERE poll IN ('AP Top 25', 'Coaches Poll')
"""
rankings_df = pd.read_sql(query, db_engine)

# Filter for teams ranked #1 in both "AP Top 25" and "Coaches Poll"
ranked_1_ap = rankings_df[(rankings_df['poll'] == 'AP Top 25') & (rankings_d
ranked_1_coaches = rankings_df[(rankings_df['poll'] == 'Coaches Poll') & (ra

# Merge the two DataFrames on 'week' and 'school' to find teams that are #1
ranked_1_both = pd.merge(ranked_1_ap, ranked_1_coaches, on=['week', 'school'

# Count the number of weeks each team was ranked #1 in both polls
team_ranked_1_counts = ranked_1_both['school'].value_counts()

# Display the results
print("Teams ranked #1 in both 'AP Top 25' and 'Coaches Poll' and the number
print(team_ranked_1_counts)

# Optionally, display the details of the weeks each team was ranked #1 in bo
print("\nDetails of the weeks each team was ranked #1 in both 'AP Top 25' an
print(ranked_1_both[['week', 'school']].sort_values(by='week'))
```

```
Teams ranked #1 in both 'AP Top 25' and 'Coaches Poll' and the number of wee
ks:
school
Georgia    8
Alabama    7
Name: count, dtype: int64

Details of the weeks each team was ranked #1 in both 'AP Top 25' and 'Coache
s Poll':
     week   school
0       1  Alabama
1       2  Alabama
2       3  Alabama
3       4  Alabama
4       5  Alabama
5       6  Alabama
6       7  Georgia
7       8  Georgia
8       9  Georgia
9      10  Georgia
10     11  Georgia
11     12  Georgia
12     13  Georgia
13     14  Georgia
14     15  Alabama
```

In [199…

```python
# Load the cfb_rankings_2021 table from the database, filtering for "AP Top
query = """
SELECT * FROM cfb_rankings_2021
WHERE poll IN ('AP Top 25', 'Coaches Poll')
"""
rankings_df = pd.read_sql(query, db_engine)

# Filter for teams ranked in the top 5 in both "AP Top 25" and "Coaches Poll
ranked_top5_ap = rankings_df[(rankings_df['poll'] == 'AP Top 25') & (ranking
ranked_top5_coaches = rankings_df[(rankings_df['poll'] == 'Coaches Poll') &

# Merge the two DataFrames on 'week' and 'school' to find teams that are in
ranked_top5_both = pd.merge(ranked_top5_ap, ranked_top5_coaches, on=['week',

# Count the number of weeks each team was in the top 5 in both polls
team_ranked_top5_counts = ranked_top5_both['school'].value_counts()

# Display the results
print("Teams in the top 5 in both 'AP Top 25' and 'Coaches Poll' and the num
print(team_ranked_top5_counts)

# Optionally, display the details of the weeks each team was in the top 5 in
print("\nDetails of the weeks each team was in the top 5 in both 'AP Top 25'
print(ranked_top5_both[['week', 'school']].sort_values(by='week'))
```

```
Teams in the top 5 in both 'AP Top 25' and 'Coaches Poll' and the number of
weeks:
school
Alabama           15
Georgia           15
Oklahoma           9
Cincinnati         9
Ohio State         6
Oregon             4
Iowa               3
Notre Dame         2
Michigan           2
Clemson            1
Texas A&M          1
Penn State         1
Oklahoma State     1
Name: count, dtype: int64

Details of the weeks each team was in the top 5 in both 'AP Top 25' and 'Coa
ches Poll':
     week       school
0       1      Alabama
1       1      Oklahoma
2       1      Clemson
3       1   Ohio State
4       1      Georgia
..    ...          ...
66     15      Georgia
67     15   Cincinnati
64     15      Alabama
65     15      Michigan
68     15   Notre Dame

[69 rows x 2 columns]
```

In [200…
```python
# Create the bar chart
plt.figure(figsize=(12, 8))
team_ranked_top5_counts.plot(kind='bar', color='skyblue')
plt.xlabel('Team')
plt.ylabel('Number of Weeks in Top 5 in Both Polls')
plt.title('Teams in Top 5 in Both AP Top 25 and Coaches Poll (2021)')
plt.xticks(rotation=45)
plt.tight_layout()
plt.savefig('/Users/shaunmckellarjr/Desktop/Shaun_Projects/CFB_Data/top_5_te
plt.show()
```

Teams in Top 5 in Both AP Top 25 and Coaches Poll (2021)
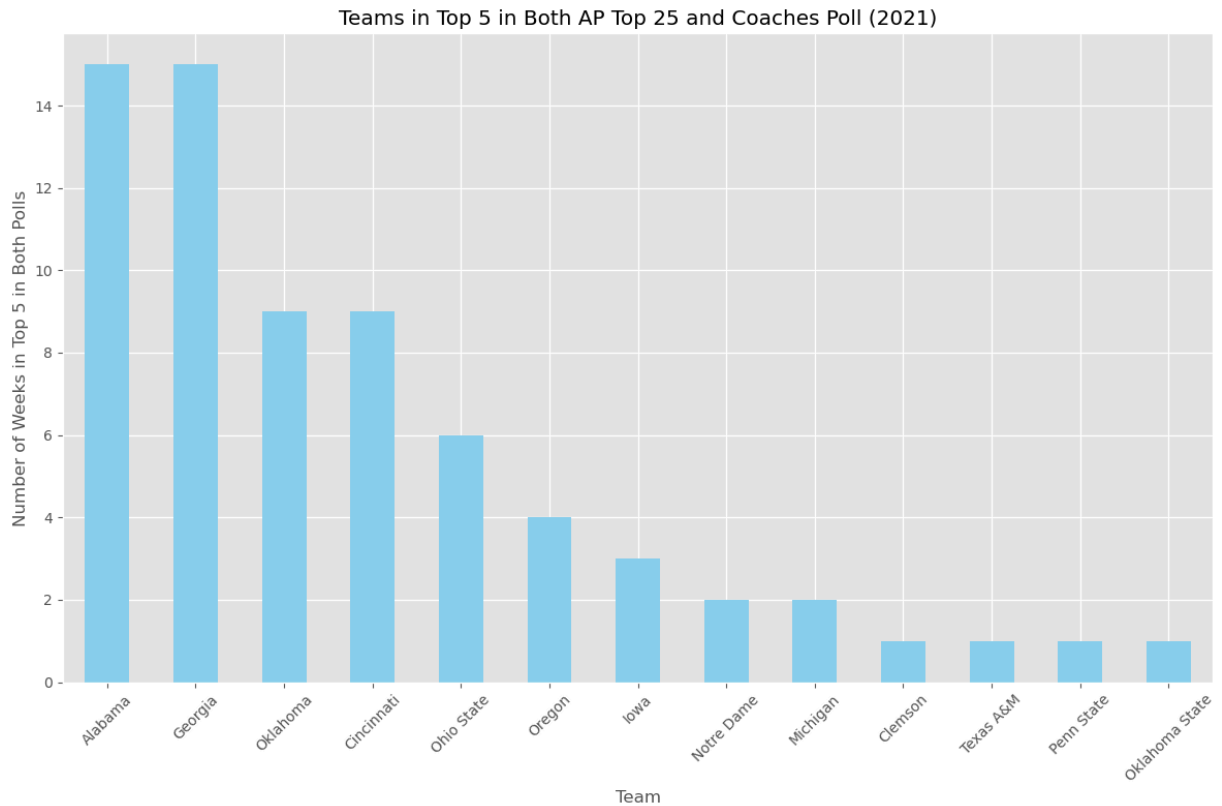

```
In [204…    # Find the initial rankings for each team in the 'AP Top 25' and 'Coaches Po
            initial_ranks_ap = rankings_df[(rankings_df['poll'] == 'AP Top 25') & (ranki
            initial_ranks_coaches = rankings_df[(rankings_df['poll'] == 'Coaches Poll')

            # Calculate the ranking changes over the season
            final_ranks_ap = rankings_df[(rankings_df['poll'] == 'AP Top 25') & (ranking
            final_ranks_coaches = rankings_df[(rankings_df['poll'] == 'Coaches Poll') &

            # Calculate rank change
            rank_changes_ap = final_ranks_ap.merge(initial_ranks_ap, on='school', how='l
            rank_changes_ap['rank_change_ap'] = rank_changes_ap['initial_rank_ap'] - ran

            rank_changes_coaches = final_ranks_coaches.merge(initial_ranks_coaches, on='
            rank_changes_coaches['rank_change_coaches'] = rank_changes_coaches['initial_

            # Combine both rank changes
            rank_changes = rank_changes_ap.merge(rank_changes_coaches, on='school', how=
            rank_changes['total_rank_change'] = rank_changes['rank_change_ap'] + rank_ch

            # Select top 10 teams with the most improvement
            top_improvers = rank_changes.sort_values(by='total_rank_change', ascending=F

            # Print the result
            print("Teams with the most improvement in their rankings from the start to t
            print(top_improvers)

            # Visualize the results
            plt.figure(figsize=(12, 8))
            ax = top_improvers.set_index('school')[['rank_change_ap', 'rank_change_coach
            plt.xlabel('Team')
            plt.ylabel('Improvement in Rankings')
```

```python
plt.title('Top 10 Teams with Most Improvement in Rankings (2021)')

# Annotate initial rankings
for idx, row in top_improvers.iterrows():
    ax.text(idx, row['rank_change_ap'] / 2, f"{row['initial_rank_ap']}", col
    ax.text(idx, row['rank_change_ap'] + row['rank_change_coaches'] / 2, f"{

plt.legend(['AP Rank Change', 'Coaches Rank Change'], loc='upper left')
plt.xticks(rotation=45)
plt.tight_layout()
plt.savefig('/Users/shaunmckellarjr/Desktop/Shaun_Projects/CFB_Data/most_imp
plt.show()
```

Teams with the most improvement in their rankings from the start to the end
of the season in both 'AP Top 25' and 'Coaches Poll':

	school	final_rank_ap	initial_rank_ap	rank_change_ap \
8	Ole Miss	8	0.0	0.0
10	Utah	10	24.0	14.0
16	Louisiana	16	23.0	7.0
9	Oklahoma State	9	0.0	0.0
4	Cincinnati	4	8.0	4.0
5	Notre Dame	5	9.0	4.0
3	Georgia	3	5.0	2.0
17	Iowa	17	18.0	1.0
0	Kentucky	25	0.0	0.0
22	Arkansas	22	0.0	0.0

	final_rank_coaches	initial_rank_coaches	rank_change_coaches \
8	8	25.0	17.0
10	11	0.0	0.0
16	17	23.0	6.0
9	9	22.0	13.0
4	4	10.0	6.0
5	5	7.0	2.0
3	3	5.0	2.0
17	16	18.0	2.0
0	20	0.0	0.0
22	24	0.0	0.0

	total_rank_change
8	17.0
10	14.0
16	13.0
9	13.0
4	10.0
5	6.0
3	4.0
17	3.0
0	0.0
22	0.0

```
/var/folders/sh/8jrc1l412v3gtlzcz2bx_qcw0000gn/T/ipykernel_31697/1056884378.
py:41: UserWarning: Tight layout not applied. The left and right margins can
not be made large enough to accommodate all axes decorations.
  plt.tight_layout()
<Figure size 1200x800 with 0 Axes>
```

Top 10 Teams with Most Improvement in Rankings (2021)
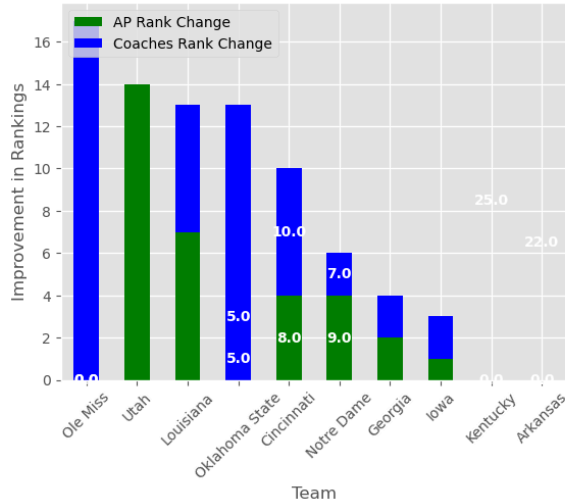

```python
# Data for visualization
teams = top_improvers['school']
initial_ap_ranks = top_improvers['initial_rank_ap'].fillna(26)  # Fill NaNs
final_ap_ranks = top_improvers['final_rank_ap']
initial_coaches_ranks = top_improvers['initial_rank_coaches'].fillna(26)  #
final_coaches_ranks = top_improvers['final_rank_coaches']

x = np.arange(len(teams))  # the label locations
width = 0.2  # the width of the bars

fig, ax = plt.subplots(figsize=(12, 8))

bars1 = ax.bar(x - width, initial_ap_ranks, width, label='Initial AP Rank')
bars2 = ax.bar(x, final_ap_ranks, width, label='Final AP Rank')
bars3 = ax.bar(x + width, initial_coaches_ranks, width, label='Initial Coach
bars4 = ax.bar(x + 2*width, final_coaches_ranks, width, label='Final Coaches

# Added text for labels, title and custom x-axis tick labels.
ax.set_xlabel('Teams')
ax.set_ylabel('Rankings')
ax.set_title('Comparison of Initial and Final Rankings in 2021')
ax.set_xticks(x)
ax.set_xticklabels(teams, rotation=45)
ax.legend()

# Added value labels on the bars
def add_labels(bars):
    for bar in bars:
        height = bar.get_height()
        ax.annotate(f'{int(height)}',
                    xy=(bar.get_x() + bar.get_width() / 2, height),
                    xytext=(0, 3),  # 3 points vertical offset
                    textcoords="offset points",
                    ha='center', va='bottom')

add_labels(bars1)
add_labels(bars2)
add_labels(bars3)
add_labels(bars4)
```

```
plt.tight_layout()
plt.show()
```

Comparison of Initial and Final Rankings in 2021
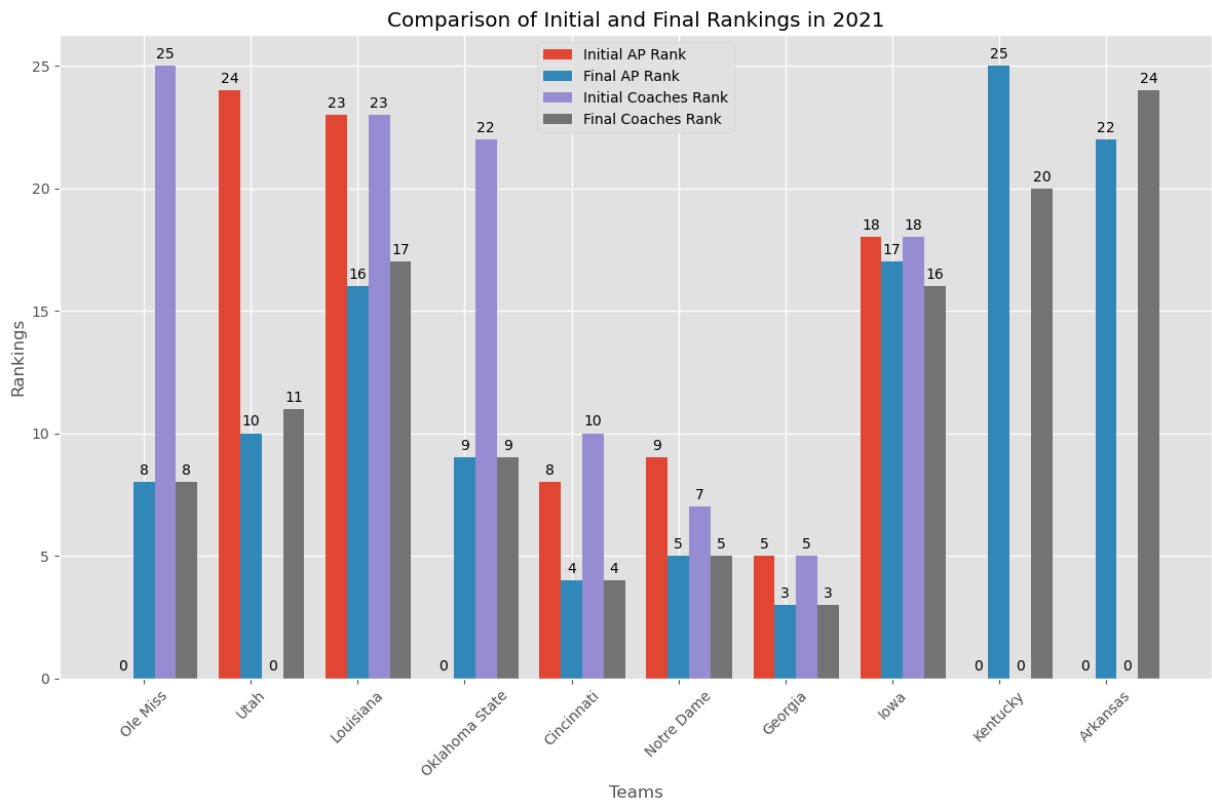

```
In [208…    # Inspected the merged DataFrame to check column
            names print("Columns in the merged DataFrame:")
            print(merged_df.columns)

            #Displayed the first few rows of the merged
            DataFrame print("Head of the merged DataFrame:")
            print(merged_df.head())
```

```
Columns in the merged DataFrame:
Index(['rank_x', 'school', 'conference', 'first_place_votes', 'points',
       'season', 'week', 'poll', 'team', 'rank_y'],
      dtype='object')
Head of the merged DataFrame:
   rank_x       school         conference  first_place_votes  points  season
\
0      25      Kentucky                SEC                  0     129    2021
1       1       Alabama                SEC                 54    1540    2021
2       2      Michigan            Big Ten                  5    1474    2021
3       3       Georgia                SEC                  0    1420    2021
4       4    Cincinnati  American Athletic                  3    1392    2021

   week          poll        team  rank_y
0    15      AP Top 25    Kentucky      32
1    15   Coaches Poll     Alabama       1
2    15   Coaches Poll    Michigan      10
3    15   Coaches Poll     Georgia       3
4    15   Coaches Poll  Cincinnati      42
```

```python
import seaborn as sns
import matplotlib.pyplot as plt

# Calculated the correlation between recruiting rankings and end-of-season
ra correlation_df = merged_df[['rank_x', 'rank_y']].corr()

# Renamed columns for clarity in visualization
correlation_df.columns = ['End of Season Rank', 'Recruiting Rank']
correlation_df.index = ['End of Season Rank', 'Recruiting Rank']

# Visualized the correlation results
plt.figure(figsize=(8, 6))
sns.heatmap(correlation_df, annot=True, cmap='coolwarm', linewidths=.5)
plt.title('Correlation between Recruiting Rankings and End-of-Season Ranking
plt.show()

# Scatter plot to visualize the relationship between recruiting rank and end
plt.figure(figsize=(10, 6))
sns.scatterplot(data=merged_df, x='rank_y', y='rank_x', hue='conference')
plt.title('End-of-Season Rank vs Recruiting Rank')
plt.xlabel('Recruiting Rank')
plt.ylabel('End-of-Season Rank')
plt.gca().invert_yaxis()  # Invert y-axis to have rank 1 at the top
plt.show()
```


Correlation between Recruiting Rankings and End-of-Season Rankings

End-of-Season Rank vs Recruiting Rank
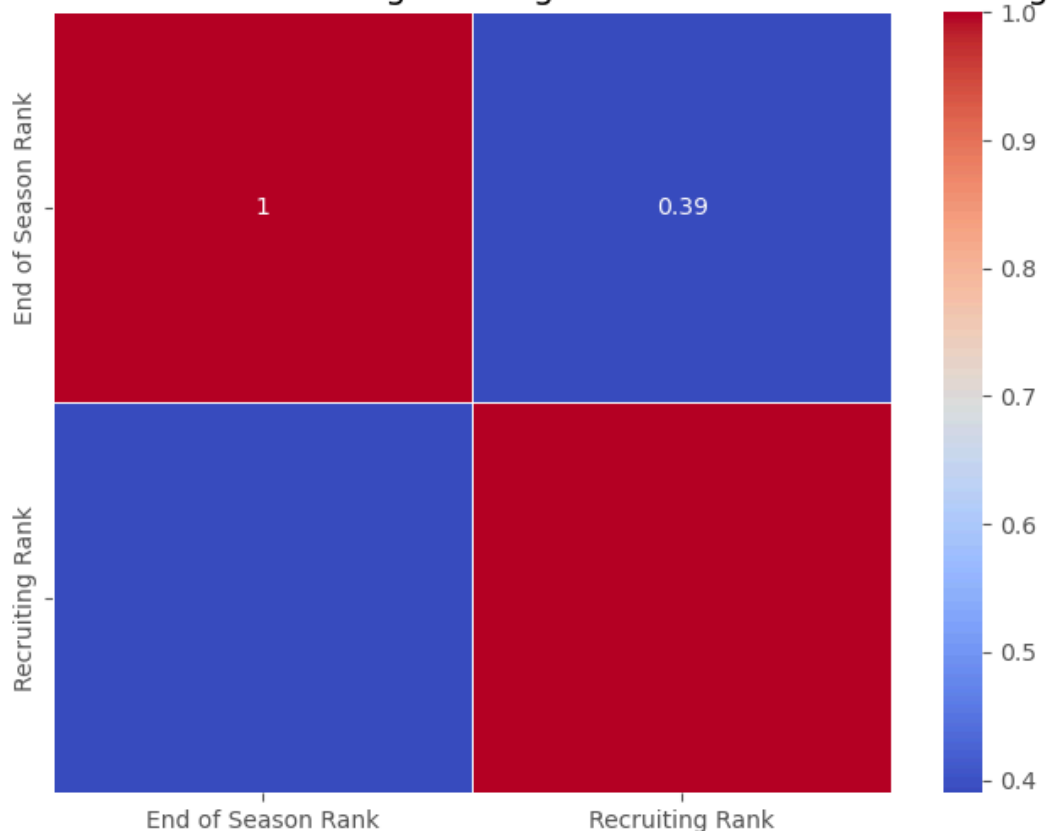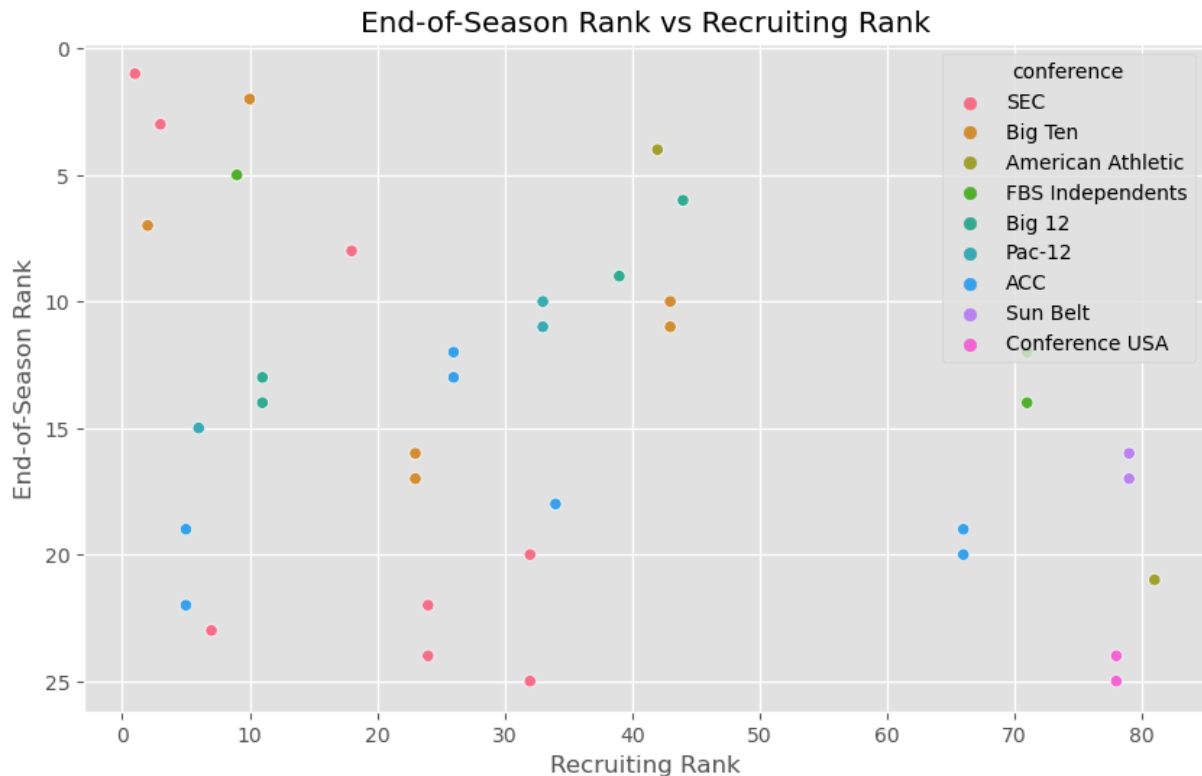

```python
print("Columns in end_of_season_rankings DataFrame:")
print(end_of_season_rankings.columns)

print("Columns in team_recruiting_df DataFrame:")
print(team_recruiting_df.columns)
```

```
Columns in end_of_season_rankings DataFrame:
Index(['rank', 'school', 'conference', 'first_place_votes', 'points', 'seaso
n',
       'week', 'poll'],
      dtype='object')
Columns in team_recruiting_df DataFrame:
Index(['team', 'rank'], dtype='object')
```

```python
import seaborn as sns
import matplotlib.pyplot as plt

# Aggregated data to ensure each team appears only once
final_rankings_agg = end_of_season_rankings.groupby('school').agg({
    'rank': 'min',  # Assuming min rank represents the final rank
    'conference': 'first'
}).reset_index()

# Renamed the column to avoid confusion during the merge
final_rankings_agg.rename(columns={'rank': 'end_of_season_rank'}, inplace=Tr

# Merged with recruiting data
merged_agg_df = pd.merge(final_rankings_agg, team_recruiting_df, left_on='sc

# Renamed the column to avoid confusion during plotting
merged_agg_df.rename(columns={'rank': 'recruiting_rank'}, inplace=True)
```

```python
# Plotted the updated scatter plot
plt.figure(figsize=(12, 8))
sns.scatterplot(x='recruiting_rank', y='end_of_season_rank', hue='conference
sns.regplot(x='recruiting_rank', y='end_of_season_rank', data=merged_agg_df,

for i in range(merged_agg_df.shape[0]):
    plt.text(x=merged_agg_df.recruiting_rank[i], y=merged_agg_df.end_of_seas
             fontdict=dict(color='black', size=8),
             bbox=dict(facecolor='white', alpha=0.5, edgecolor='none'))

plt.xlabel('Recruiting Rank')
plt.ylabel('End of Season Rank')
plt.title('End-of-Season Rank vs Recruiting Rank')
plt.legend(title='Conference')
plt.gca().invert_yaxis()
plt.gca().invert_xaxis()
plt.tight_layout()
plt.show()
```
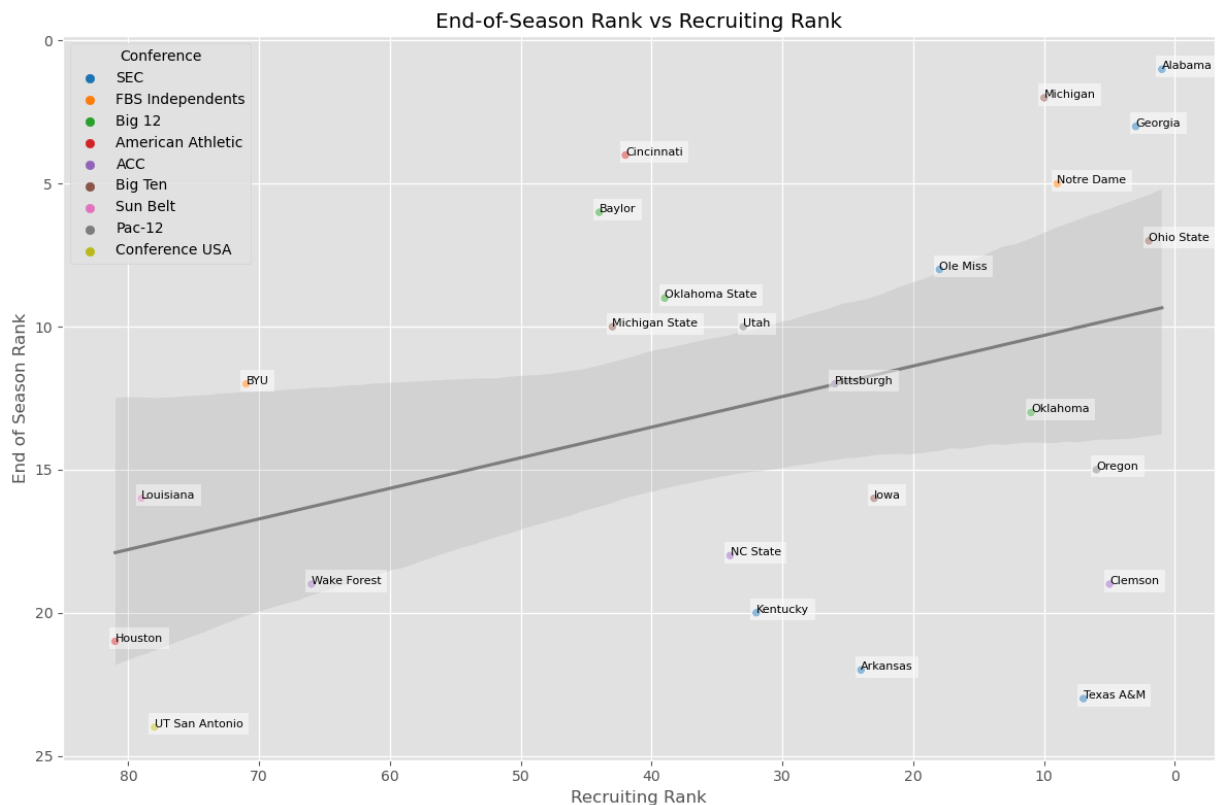


```python
import pandas as pd
import numpy as np
import cfbd
from cfbd.rest import ApiException
from sqlalchemy import create_engine, text
import os
import matplotlib.pyplot as plt
import seaborn as sns
from statsmodels.tsa.seasonal import seasonal_decompose
from statsmodels.tsa.arima.model import ARIMA
```

```python
In [241…  # Set some configurations
          pd.set_option('display.max_columns', None)  # Do not truncate columns

          # Fetched environment variables
          CFBD_API_KEY = os.getenv('CFBD_API_KEY', 'OI4K3SFuwfg78al1MkMCKZfXXehF/vz3Ud

          # Configuration for cfbd API
          def configure_cfbd_api(api_key):
              config = cfbd.Configuration()
              config.api_key['Authorization'] = api_key
              config.api_key_prefix['Authorization'] = 'Bearer'
              return cfbd.ApiClient(config)

          api_config = configure_cfbd_api(CFBD_API_KEY)

          # Initialized APIs
          teams_api = cfbd.TeamsApi(api_config)
          conferences_api = cfbd.ConferencesApi(api_config)
          games_api = cfbd.GamesApi(api_config)
          players_api = cfbd.PlayersApi(api_config)
          stats_api = cfbd.StatsApi(api_config)
          rankings_api = cfbd.RankingsApi(api_config)
          recruiting_api = cfbd.RecruitingApi(api_config)
          venues_api = cfbd.VenuesApi(api_config)
          coaches_api = cfbd.CoachesApi(api_config)

          # Fetched data from APIs
          def fetch_data(api, fetch_function, **kwargs):
              try:
                  data = fetch_function(**kwargs)
                  if not data:
                      raise ValueError("No data retrieved.")
                  return data
              except ApiException as e:
                  print(f"Error fetching data: {e}")
                  return []
              except Exception as e:
                  print(f"Error fetching data: {e}")
                  return []

          # Flattened nested dictionary
          columns def flatten_columns(df,
          col)col_flat = pd.json_normalize(df[col])
              col_flat.columns = [f"{col}_{subcol}" for subcol in col_flat.columns]
              df = df.drop(col, axis=1).join(col_flat)
              return df
```

```python
In [242…  # Fetched and processing all data
          teams = fetch_data(teams_api, teams_api.get_fbs_teams)
          conferences = fetch_data(conferences_api, conferences_api.get_conferences)
          games = fetch_data(games_api, games_api.get_games, year=2021)
          team_stats = fetch_data(stats_api, stats_api.get_team_season_stats, year=202
          rankings = fetch_data(rankings_api, rankings_api.get_rankings, year=2021)
          recruiting = fetch_data(recruiting_api, recruiting_api.get_recruiting_player
          team_recruiting = fetch_data(recruiting_api, recruiting_api.get_recruiting_t
```

```python
venues = fetch_data(venues_api, venues_api.get_venues)
coaches = fetch_data(coaches_api, coaches_api.get_coaches)
```

In [249…
```python
# Processed teams data
teams_data = []
for team in teams:
    team_dict = team.to_dict()
    location = team_dict.pop('location', {})
    for key, value in location.items():
        team_dict[f'location_{key}'] = value
    teams_data.append(team_dict)

teams_df = pd.DataFrame(teams_data)
```

In [250…
```python
# Processed conferences data
conferences_data = [conf.to_dict() for conf in conferences]
conferences_df = pd.DataFrame(conferences_data)
```

In [251…
```python
# Processed games data
games_data = []
for g in games:
    game_dict = {
        'home_team': g.home_team,
        'home_points': g.home_points,
        'away_team': g.away_team,
        'away_points': g.away_points,
        'venue': g.venue,
        'start_date': g.start_date,
        'conference_game': g.conference_game,
        'neutral_site': g.neutral_site,
        'season': g.season,
        'week': g.week,
    }
    games_data.append(game_dict)

games_df = pd.DataFrame(games_data)
games_df['margin'] = games_df['home_points'] - games_df['away_points']
```

In [252…
```python
# Processed player stats data
player_stats_data = [stat.to_dict() for stat in player_stats]
player_stats_df = pd.DataFrame(player_stats_data)

# Processed team stats data
team_stats_data = [stat.to_dict() for stat in team_stats]
team_stats_df = pd.DataFrame(team_stats_data)
```

In [253…
```python
# Processed rankings data
rankings_data = []
for ranking in rankings:
    for poll in ranking.polls:
        for rank in poll.ranks:
            rank_dict = rank.to_dict()
            rank_dict.update({
                'season': ranking.season,
                'week': ranking.week,
```

```python
                'poll': poll.poll,
                'team': rank.school
            })
            rankings_data.append(rank_dict)

rankings_df = pd.DataFrame(rankings_data)
```

In [255…
```python
# Processed recruiting data
recruiting_data = [rec.to_dict() for rec in recruiting]
recruiting_df = pd.DataFrame(recruiting_data)

# Processed team recruiting data
team_recruiting_data = [rec.to_dict() for rec in team_recruiting]
team_recruiting_df = pd.DataFrame(team_recruiting_data)

# Processed venues data
venues_data = [venue.to_dict() for venue in venues]
venues_df = pd.DataFrame(venues_data)

# Processed coaches data
coaches_data = [coach.to_dict() for coach in coaches]
coaches_df = pd.DataFrame(coaches_data)
```

In [256…
```python
# Flattened the 'hometown_info' column in recruiting_df if it
exists if 'hometown_info' in recruiting_df.columns:
    recruiting_df = flatten_columns(recruiting_df, 'hometown_info')

# Flattened the 'location' column in venues_df if it exists
if 'location' in venues_df.columns:
    venues_df = flatten_columns(venues_df, 'location')

# Flattened the 'seasons' column in coaches_df if it
exists if 'seasons' in coaches_df.columns:
    coaches_df = coaches_df.explode('seasons')
    coaches_df = flatten_columns(coaches_df, 'seasons')
```

In [257…
```python
# Insert data into PostgreSQL database
def insert_data_to_db(df, table_name, engine):
        df.to_sql(table_name, engine, if_exists='replace', index=False)

insert_data_to_db(games_df, 'cfb_games_2021', db_engine)
insert_data_to_db(teams_df, 'cfb_teams_2021', db_engine)
insert_data_to_db(conferences_df, 'cfb_conferences_2021', db_engine)
insert_data_to_db(player_stats_df, 'cfb_player_stats_2021', db_engine)
insert_data_to_db(team_stats_df, 'cfb_team_stats_2021', db_engine)
insert_data_to_db(rankings_df, 'cfb_rankings_2021', db_engine)
insert_data_to_db(recruiting_df, 'cfb_recruiting_2021', db_engine)
insert_data_to_db(team_recruiting_df, 'cfb_team_recruiting_2021', db_engine)
insert_data_to_db(venues_df, 'cfb_venues_2021', db_engine)
insert_data_to_db(coaches_df, 'cfb_coaches_2021', db_engine)
```

```
In [273…    # Define the years to fetch data for
            years = [2018, 2019, 2020, 2021]
```

```
In [274…    # Initialize empty lists to store data for all years
            rankings_data = []
            recruiting_data = []
```

```
In [276…    # Database connection
            db_string = "postgresql://postgres:Lebronjames6@localhost:5432/CFB_Data"
            db_engine = create_engine(db_string)
```

```
In [277…    for year in years:
                # Fetched rankings data
                year_rankings = fetch_data(rankings_api, rankings_api.get_rankings, year
                for ranking in year_rankings:
                    for poll in ranking.polls:
                        for rank in poll.ranks:
                            rank_dict = rank.to_dict()
                            rank_dict.update({
                                'season': ranking.season,
                                'week': ranking.week,
                                'poll': poll.poll,
                                'team': rank.school
                            })
                                rankings_data.append(rank_dict)

                # Fetched recruiting data
                year_recruiting = fetch_data(recruiting_api, recruiting_api.get_recruiti
                recruiting_data.extend([rec.to_dict() for rec in year_recruiting])
```

```
In [278…    # Converted lists to DataFrames
            rankings_df = pd.DataFrame(rankings_data)
            recruiting_df = pd.DataFrame(recruiting_data)
```

```
In [279…    # Inspected columns
            print("Columns in recruiting_df:", recruiting_df.columns)
            print("Columns in rankings_df:", rankings_df.columns)
```

```
Columns in recruiting_df: Index(['year', 'rank', 'team', 'points'], dtype='o
bject')
Columns in rankings_df: Index(['rank', 'school', 'conference', 'first_place_
votes', 'points', 'season',
       'week', 'poll', 'team'],
      dtype='object')
```

```
In [280…    # Ensured 'season' column exists in recruiting_df
            if 'year' in recruiting_df.columns:
                recruiting_df.rename(columns={'year': 'season'}, inplace=True)

            # Ensured 'team' column exists in recruiting_df
            if 'school' in recruiting_df.columns:
                recruiting_df.rename(columns={'school': 'team'}, inplace=True)
```

```
In [281…   # Inspected for duplicates
           print(recruiting_df.duplicated(subset=['team', 'season']).sum())
           print(rankings_df.duplicated(subset=['team', 'season']).sum())

           0
           4734
```

```
In [282…   # Aggregated rankings data to ensure unique team-season combinations
           rankings_df = rankings_df.groupby(['team', 'season']).agg({
               'rank': 'min',
               'conference': 'first',
               'first_place_votes': 'sum',
               'points': 'sum'
           }).reset_index()
```

```
In [283…   # Merged recruiting data with rankings data on 'team' and 'season'
           merged_df = pd.merge(recruiting_df, rankings_df, left_on=['team', 'season'],
```

```
In [284…   # Set the season as the time index
           merged_df['season'] = pd.to_datetime(merged_df['season'], format='%Y')
           merged_df.set_index('season', inplace=True)
```

```
In [285…   # Sorted by season
           merged_df = merged_df.sort_index()

           print(merged_df.head())
```

```
                    rank_x        team  points_x  rank_y conference  \
           season
           2018-01-01       1      Georgia    323.31       2        SEC
           2018-01-01       2   Ohio State    317.06       2    Big Ten
           2018-01-01       3        Texas    300.06       6     Big 12
           2018-01-01       4          USC    291.20      12     Pac-12
           2018-01-01       5      Alabama    289.94       1        SEC


                    first_place_votes  points_y
           season
           2018-01-01                0.0   40261.0
           2018-01-01               11.0   37978.0
           2018-01-01                0.0   17037.0
           2018-01-01                0.0    3173.0
           2018-01-01             1784.0   46633.0
```

```
In [286…   # Time Series Analysis and Visualization
           import statsmodels.api as sm
           from statsmodels.tsa.seasonal import seasonal_decompose
           from statsmodels.tsa.arima.model import ARIMA
```

```
In [287…   # Plot the time series data for Florida
           team_name = 'Florida'
           team_data = merged_df[merged_df['team'] == team_name]
```

```
In [289…   plt.figure(figsize=(12, 6))
           plt.plot(team_data.index, team_data['rank_x'], marker='o')
           plt.title(f'Time Series of End-of-Season Rankings for {team_name}')
```

```
plt.xlabel('Season')
plt.ylabel('Rank')
plt.gca().invert_yaxis()  # Invert y-axis to show rank 1 at the top
plt.grid(True)
plt.show()
```

Time Series of End-of-Season Rankings for Florida
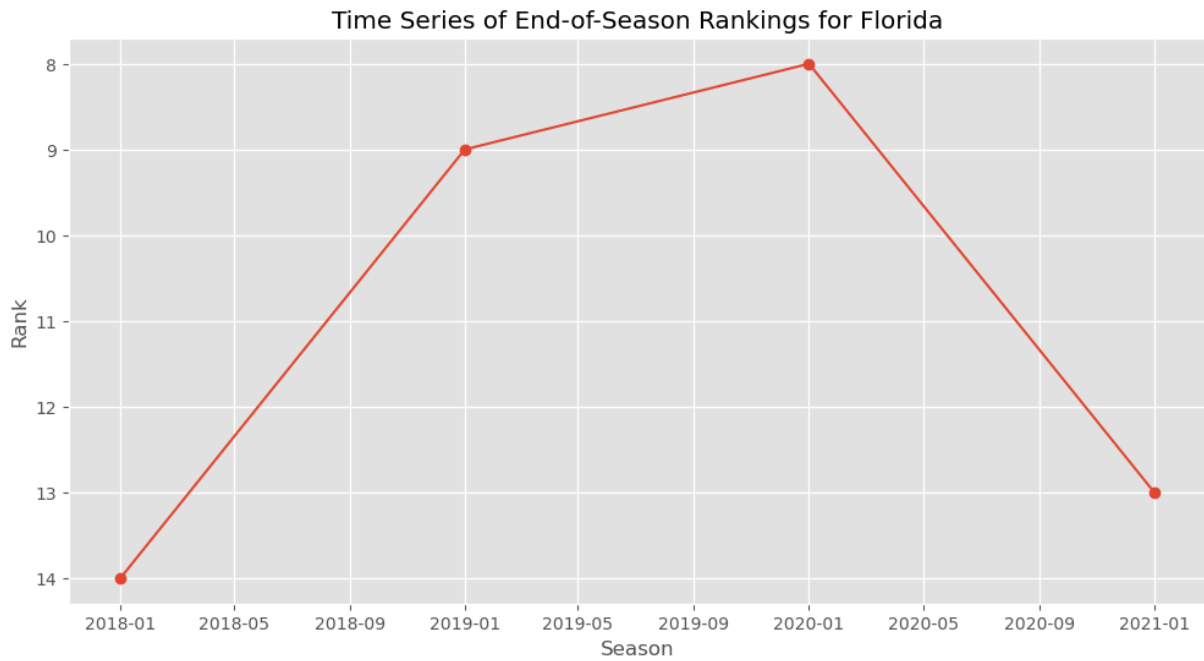

```
In [291…  # Decomposed the time series data
          decomposition = seasonal_decompose(team_data['rank_x'], model='additive', pe
          fig = decomposition.plot()
          fig.set_size_inches(12, 8)
          plt.show()
```
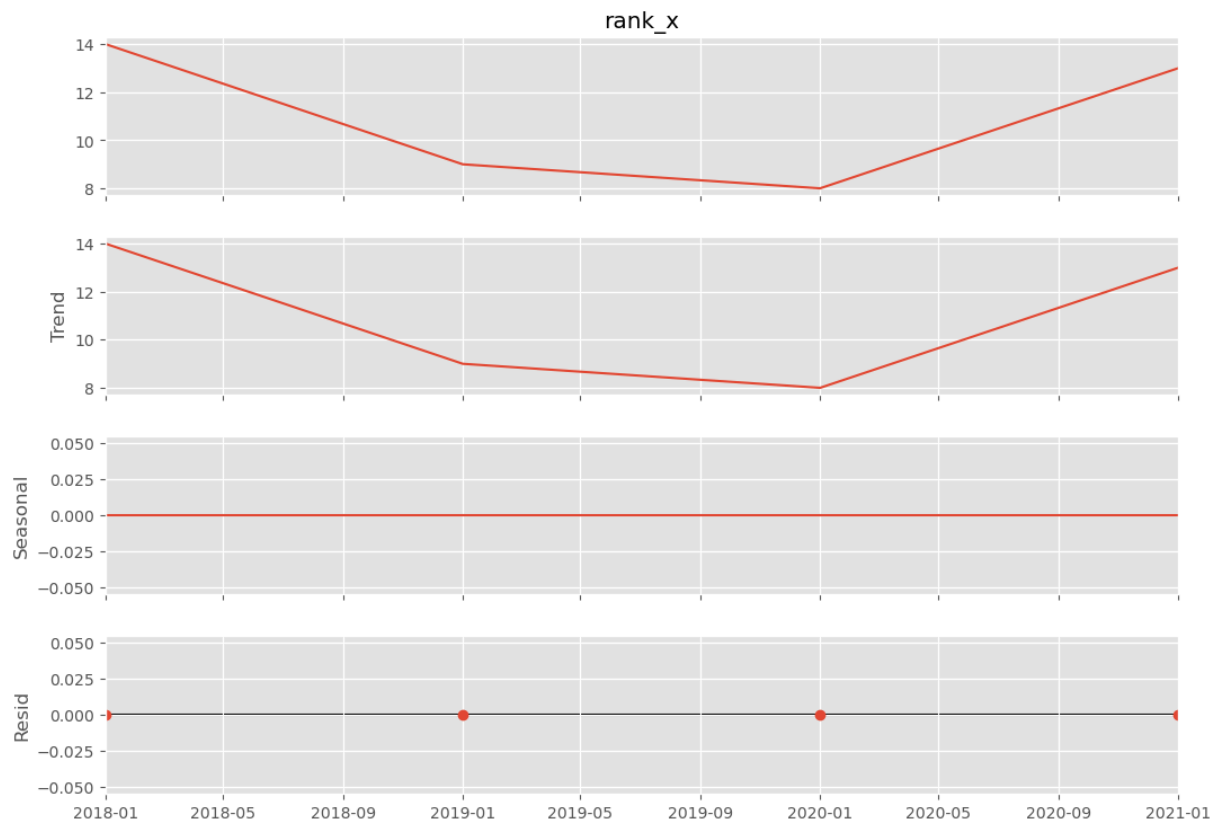
rank_x


```
# Fit ARIMA model
model = ARIMA(team_data['rank_x'], order=(1, 1, 1))
model_fit = model.fit()
print(model_fit.summary())
```

```
                           SARIMAX Results
================================================================================
==
Dep. Variable:                    rank_x   No. Observations:
4
Model:                   ARIMA(1, 1, 1)   Log Likelihood                  -8.1
87
Date:                  Mon, 03 Jun 2024   AIC                             22.3
74
Time:                          21:38:56   BIC                             19.6
70
Sample:                      01-01-2018   HQIC                            16.9
39
                           - 01-01-2021
Covariance Type:                    opg
================================================================================
==
                 coef    std err          z      P>|z|      [0.025      0.97
5]
--------------------------------------------------------------------------------
--
ar.L1          0.0712      3.589      0.020      0.984      -6.963       7.1
06
ma.L1         -0.9991   1943.997     -0.001      1.000   -3811.164    3809.1
65
sigma2         8.9716   1.74e+04      0.001      1.000   -3.41e+04    3.41e+
04
================================================================================
=======
Ljung-Box (L1) (Q):                    0.07   Jarque-Bera (JB):
0.49
Prob(Q):                               0.80   Prob(JB):
0.78
Heteroskedasticity (H):                 nan   Skew:
0.65
Prob(H) (two-sided):                    nan   Kurtosis:
1.50
================================================================================
=======

Warnings:
[1] Covariance matrix calculated using the outer product of gradients (compl
ex-step).
```

```python
# Forecast future rankings
forecast_steps = 5
forecast = model_fit.forecast(steps=forecast_steps)
print(f'Forecasted Rankings for the next {forecast_steps} seasons:')
print(forecast)
```

In [293…

```
Forecasted Rankings for the next 5 seasons:
2022-01-01    11.228241
2023-01-01    11.102007
2024-01-01    11.093014
2025-01-01    11.092373
2026-01-01    11.092327
Freq: AS-JAN, Name: predicted_mean, dtype: float64
```

In [367…

```python
# Fetched the actual rankings for 2022 and
2023 actual_rankings_2022_2023 =
pd.DataFrame({'season': pd.to_datetime(['2022-01-01', '2023-01-01']),
    'team': ['Florida', 'Florida'],
    'rank': [74, 84]  # Replace these with actual fetched data
})
```

In [368…

```python
# Appended actual rankings to the historical data
historical_and_actual_rankings = pd.concat([merged_df.reset_index(), actual_
```

In [369…

```python
# Set the season as the time index
historical_and_actual_rankings['season'] = pd.to_datetime(historical_and_act
historical_and_actual_rankings.set_index('season', inplace=True)
```

```
# Filtered data for Florida
```
In [370...
```
florida_data =
historical_and_actual_rankings[historical_and_actual_rankings
```

In [371...
```
# Trained the SARIMAX model on the historical data (2018–2021)
train_data = florida_data.loc['2018-01-01':'2021-01-01']['rank_x']
model = SARIMAX(train_data, order=(1, 1, 1))
results = model.fit()
```

```
              RUNNING THE L-BFGS-B CODE

                        * * *

              Machine precision = 2.220D-16
 N =              3     M =            10

 At X0          0 variables are exactly at the bounds

 At iterate    0    f=  2.14461D+00    |proj g|=  7.20919D-02

 At iterate    5    f=  2.10819D+00    |proj g|=  4.86131D-02

 At iterate   10    f=  2.05067D+00    |proj g|=  1.42843D-02

 At iterate   15    f=  2.04733D+00    |proj g|=  4.13528D-03

 At iterate   20    f=  2.04685D+00    |proj g|=  5.78180D-04

 At iterate   25    f=  2.04679D+00    |proj g|=  4.11393D-04

 At iterate   30    f=  2.04678D+00    |proj g|=  1.46127D-04

 At iterate   35    f=  2.04678D+00    |proj g|=  4.21176D-05

          * * *

 Tit   = total number of iterations
 Tnf   = total number of function evaluations
 Tnint = total number of segments explored during Cauchy searches
 Skip  = number of BFGS updates skipped
 Nact  = number of active bounds at final generalized Cauchy point
 Projg = norm of the final projected gradient
 F     = final function value

          * * *

   N    Tit     Tnf  Tnint  Skip  Nact     Projg        F
   3     36      47     1     0     0    2.442D-05   2.047D+00
  F =    2.0467783388057033

CONVERGENCE: REL_REDUCTION_OF_F_<=_FACTR*EPSMCH
```

```
# Forecast the rankings for 2022 and 2023
forecast = results.get_forecast(steps=2)
forecast_index = pd.date_range(start='2022-01-01', periods=2, freq='AS-JAN')
forecast_df = forecast.summary_frame()
forecast_df.index = forecast_index
forecast_df['team'] = 'Florida'


# Combine actual and forecasted data for comparison
combined_df = pd.concat([florida_data.reset_index(), forecast_df.reset_index
combined_df = combined_df.rename(columns={'index': 'season', 'rank_x': 'actu


# Plot the actual vs forecasted rankings
plt.figure(figsize=(12, 6))
plt.plot(combined_df['season'], combined_df['actual_rank'], marker='o', labe
plt.plot(combined_df['season'], combined_df['forecasted_rank'], marker='x',
plt.title('Comparison of Actual vs Forecasted End-of-Season Rankings for Flo
plt.xlabel('Season')
plt.ylabel('Rank')
plt.legend()
plt.grid()
plt.show()
```

Comparison of Actual vs Forecasted End-of-Season Rankings for Florida
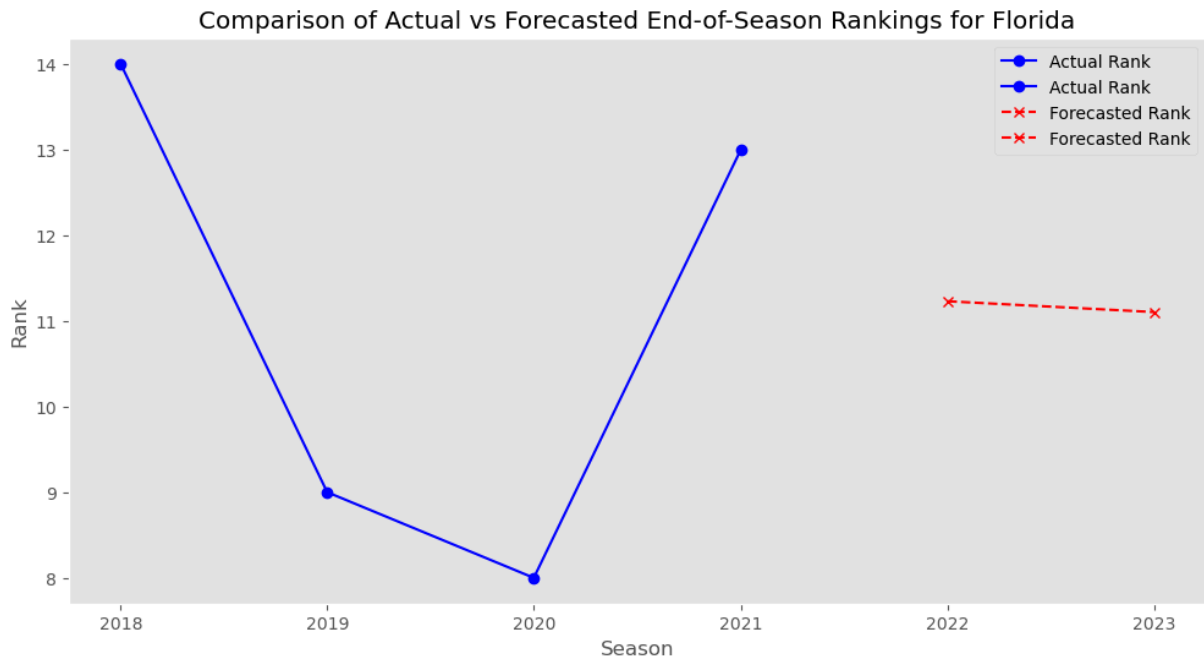

```
In [375…   # Printed the comparison data
           print(combined_df[['season', 'team', 'actual_rank', 'forecasted_rank']])
```

```
        season      season     team  actual_rank  forecasted_rank
0   2018-01-01         NaT  Florida         14.0              NaN
1   2019-01-01         NaT  Florida          9.0              NaN
2   2020-01-01         NaT  Florida          8.0              NaN
3   2021-01-01         NaT  Florida         13.0              NaN
4   2022-01-01         NaT  Florida          NaN              NaN
5   2023-01-01         NaT  Florida          NaN              NaN
0          NaT  2022-01-01  Florida          NaN        11.228241
1          NaT  2023-01-01  Florida          NaN        11.102007
```

```
In [377…   actual_rankings_2022_2023 = pd.DataFrame({

               'season': pd.to_datetime(['2022-01-01', '2023-01-01']),
           'team': ['Florida', 'Florida'],
           'actual_rank': [74, 84]
```

```
In [378…   # Inspected the columns for duplicates
           print("Columns in combined_df:", combined_df.columns)
           print("Columns in actual_rankings_2022_2023:", actual_rankings_2022_2023.col
```

```
Columns in combined_df: Index(['season', 'actual_rank', 'team', 'points_x',
'rank_y', 'conference',
        'first_place_votes', 'points_y', 'rank', 'season', 'forecasted_rank',
        'mean_se', 'mean_ci_lower', 'mean_ci_upper'],
      dtype='object')
Columns in actual_rankings_2022_2023: Index(['season', 'team', 'actual_ran
k'], dtype='object')
```

```
In [379…   # Removed duplicate columns in combined_df
           combined_df = combined_df.loc[:, ~combined_df.columns.duplicated()]
```

```
In [380… # Ensure the season column is properly formatted as datetime in both DataFra
         combined_df.loc[:, 'season'] = pd.to_datetime(combined_df['season'], errors=
         actual_rankings_2022_2023.loc[:, 'season'] = pd.to_datetime(actual_rankings_
```

```
In [381… # Ensure unique indices in both DataFrames
         combined_df = combined_df.reset_index(drop=True).drop_duplicates(subset=['se
         actual_rankings_2022_2023 = actual_rankings_2022_2023.reset_index(drop=True)
```

```
In [382… # Merging actual rankings with forecasted data
         comparison_df = pd.concat([combined_df, actual_rankings_2022_2023[['actual_r
```

```
In [383… # Plotting actual vs forecasted rankings
         plt.figure(figsize=(12, 6))
         plt.plot(comparison_df.index, comparison_df['rank'], marker='o', label='Actu
         plt.plot(comparison_df.index, comparison_df['forecasted_rank'], marker='x',
         plt.plot(comparison_df.index, comparison_df['actual_rank'], marker='s', line
         plt.title('Comparison of Actual vs Forecasted End-of-Season Rankings for Flo
         plt.xlabel('Season')
         plt.ylabel('Rank')
         plt.legend()
         plt.grid()
         plt.show()
```


Comparison of Actual vs Forecasted End-of-Season Rankings for Florida
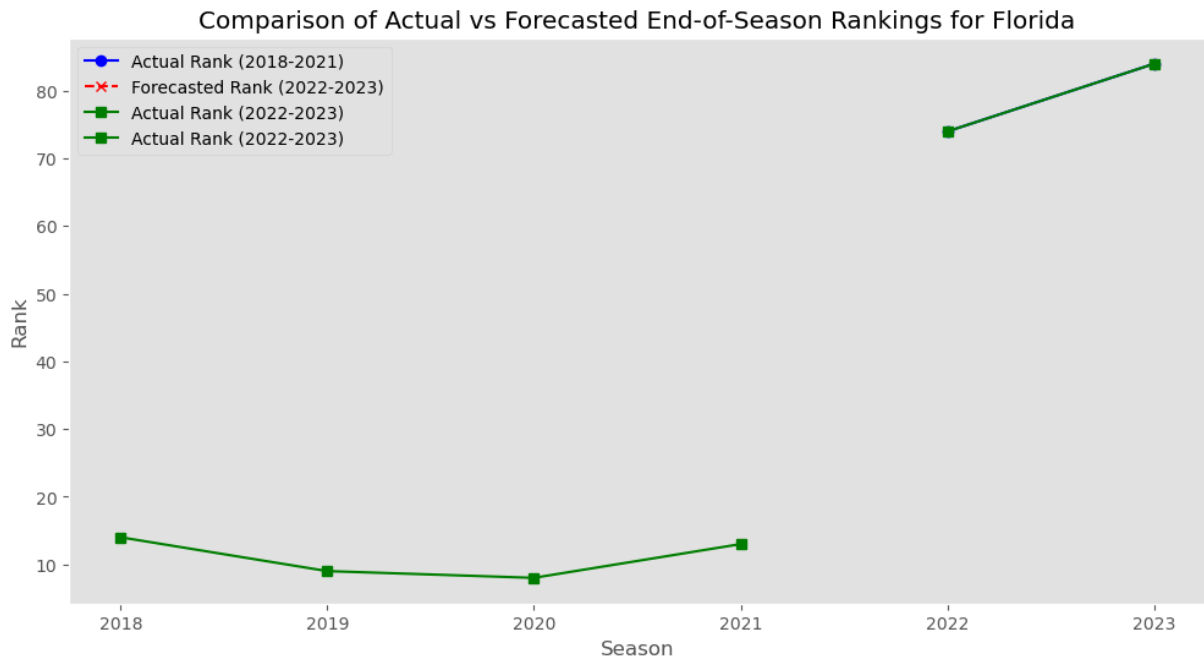
```
In [384… # Print the comparison data
         print(comparison_df[['team', 'rank', 'forecasted_rank', 'actual_rank']])
```

	team	rank	forecasted_rank	actual_rank	actual_rank
season					
2018-01-01	Florida	NaN	NaN	14.0	NaN
2019-01-01	Florida	NaN	NaN	9.0	NaN
2020-01-01	Florida	NaN	NaN	8.0	NaN
2021-01-01	Florida	NaN	NaN	13.0	NaN
2022-01-01	Florida	74.0	NaN	NaN	74.0
2023-01-01	Florida	84.0	NaN	NaN	84.0
NaT	Florida	NaN	11.228241	NaN	NaN