Game of Thrones

Table of contents


```
season = "season_4"
```

```
# Injected Parameters
season = "season_6"
```

```
import pandas as pd
from pathlib import Path
import os
from IPython.display import Markdown, display

# List of seasons to process
seasons = ["season_1", "season_2", "season_3", "season_4",
           "season_5", "season_6", "season_7", "season_8"]

# Construct the base data directory path
data_dir = Path("../Data/")

# Loop through each season
file_path = os.path.join(data_dir, season + '.csv')
print(file_path)
df = pd.read_csv(file_path)
```

```
..\Data\season_6.csv
```

```
display(Markdown(f"""
### Game of Thrones - {season} summary in numbers
"""))
```

0.1 Game of Thrones - season_6 summary in numbers

0.2 (*Warning:* spoilers ahead)

0.3 Overview

(From the Wikipedia) Game of Thrones is an American fantasy drama television series created by David Benioff and D. B. Weiss for HBO. It is an adaptation of A Song of Ice and Fire, a series of fantasy novels by George R. R. Martin, the first of which is A Game of Thrones.

Set on the fictional continents of Westeros and Essos, Game of Thrones has a large ensemble cast and follows several story arcs throughout the course of the show. A major arc concerns the Iron Throne of the Seven Kingdoms of Westeros through a web of political conflicts among the noble families either vying to claim the throne or fighting for independence from it. Another focuses on the last descendant of the realm's deposed ruling dynasty, who has been exiled to Essos and is plotting a return to the throne. A third story arc follows the Night's Watch, a military order defending the realm against threats from the North.

```
display(Markdown(f"""
### {season} - episode descriptions
"""))
```

0.4 season_6 - episode descriptions

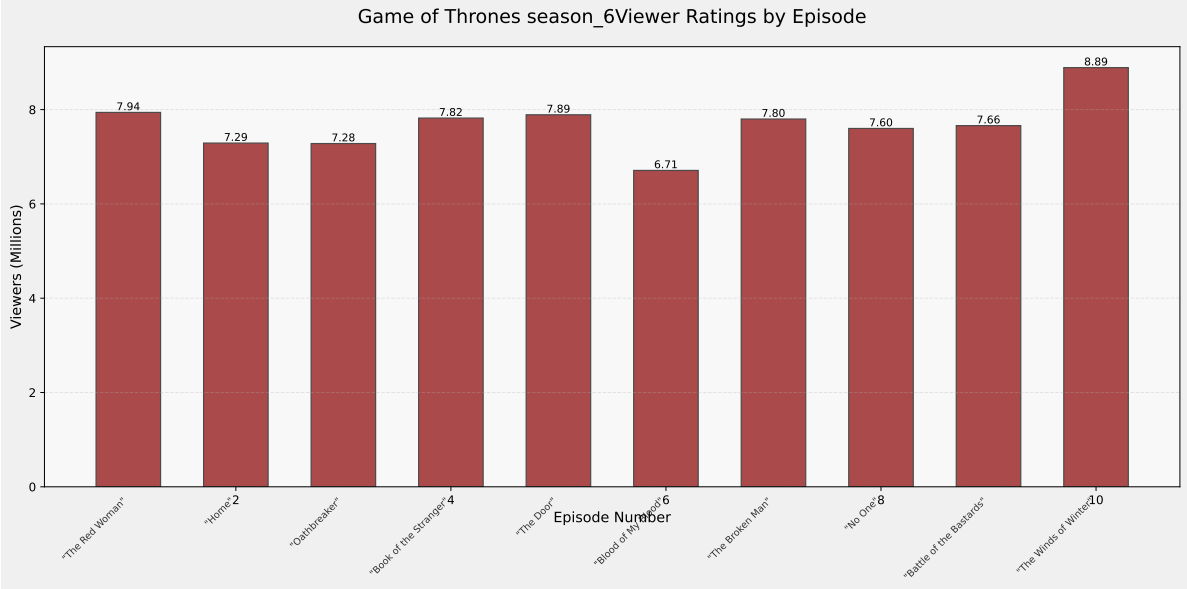
```
for description in df["description"]:
    display(Markdown(f"""
    > {description}

    """))  # Added extra newline for better spacing
```

```
> Alliser Thorne assumes command of the Night Watch, while Ser Davos, and several loyalists l

> In a vision of the past, Brandon sees his father Ned, Uncle Benjen, their sister Lyanna, a

> En route to Oldtown to train as a Maester, Samwell first visits Horn Hill, his family home

> Sansa, Brienne and Podrick arrive at Castle Black. Sansa wants Jon to retake the North. In

> Sansa secretly meets with Littlefinger, who offers the Vale's forces and says her great unc

> Meera escapes the cave with Bran, who is immersed in the Three-Eyed Raven's transferred vis

> The Hound is alive and living a simple, non-violent life, having been saved by a Septon and

> Tommen abolishes trial by combat, to Cersei's dismay, who planned to win with Ser Gregor as

> On Tyrion's advice, Daenerys meets with three slave masters to negotiate a surrender, which

> Before her trial, Cersei destroys the Sept of Baelor by wildfire, killing the High Sparrow
```

You can see how the viewership of the episodes changed in Figure 1.

```python
import pandas as pd
import matplotlib.pyplot as plt
from matplotlib.ticker import MaxNLocator

# Create the plot
plt.figure(figsize=(14, 7))

# Create histogram-style bars
bars = plt.bar(df['no_season'], df['viewers'],
               color='darkred',
               alpha=0.7,
               edgecolor='black',
               width=0.6)

# Customize the plot
plt.title('Game of Thrones ' + str(season) + 'Viewer Ratings by Episode', fontsize=16, pad=20
plt.xlabel('Episode Number', fontsize=12)
```

```
plt.ylabel('Viewers (Millions)', fontsize=12)
plt.grid(True, linestyle='--', alpha=0.3, axis='y')

# Ensure x-axis shows whole numbers for episode numbers
plt.gca().xaxis.set_major_locator(MaxNLocator(integer=True))

# Add value labels on top of each bar
for bar in bars:
    height = bar.get_height()
    plt.text(bar.get_x() + bar.get_width()/2., height,
             f'{height:.2f}',
             ha='center', va='bottom',
             fontsize=9)

# Add episode titles below each bar
for i, row in df.iterrows():
    plt.text(row['no_season'], -0.2,
             row['title'],
             rotation=45,
             ha='right',
             va='top',
             fontsize=8,
             alpha=0.8)

# Adjust margins to accommodate episode titles
plt.subplots_adjust(bottom=0.3)

# Add some thematic styling
plt.gca().set_facecolor('#f8f8f8')
plt.gcf().set_facecolor('#f0f0f0')

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



```
from IPython.display import Markdown
import pandas as pd

# Calculate total viewers and average
total_viewers = df['viewers'].sum()
avg_view = total_viewers / len(df)

# Filter episodes with above-average viewership
above_avg = df[df['viewers'] >= avg_view]

# Create Markdown table
table_header = "| Episode | Title | Viewers (Millions) |\n|--------|-------|-----------------
table_rows = []

for _, row in above_avg.iterrows():
    table_rows.append(f"| {int(row['no_season'])} | {row['title']} | {row['viewers']:.2f} |"

# Combine header and rows
markdown_table = f"""
**Episodes with Above-Average Viewership (Average: {avg_view:.2f} million viewers)**

{table_header}
{"\n".join(table_rows)}
```

```
"""

# Display the table
display(Markdown(markdown_table))
```

Episodes with Above-Average Viewership (Average: 7.69 million viewers)

Episode	Title	Viewers (Millions)
1	“The Red Woman”	7.94
4	“Book of the Stranger”	7.82
5	“The Door”	7.89
7	“The Broken Man”	7.80
10	“The Winds of Winter”	8.89