In [1]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

In [2]:
```
from glob import glob
```

In [3]:
```
csv_files = glob("zippedData/*.csv.gz")
```

In [4]:
```
csv_files
```

Out[4]:
```
['zippedData\\bom.movie_gross.csv.gz',
 'zippedData\\imdb.name.basics.csv.gz',
 'zippedData\\imdb.title.akas.csv.gz',
 'zippedData\\imdb.title.basics.csv.gz',
 'zippedData\\imdb.title.crew.csv.gz',
 'zippedData\\imdb.title.principals.csv.gz',
 'zippedData\\imdb.title.ratings.csv.gz',
 'zippedData\\tmdb.movies.csv.gz',
 'zippedData\\tn.movie_budgets.csv.gz']
```

In [5]:
```
import os
```

In [6]:
```
csv_files_dict = {}
for filename in csv_files:
    filename_cleaned = os.path.basename(filename).replace(".csv", "").replac
    filename_df = pd.read_csv(filename, index_col = 0)
    csv_files_dict[filename_cleaned] = filename_df
```

In [7]:
```
df_studio = csv_files_dict['bom_movie_gross_gz']
```

In [8]:
```
df_studio.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Index: 3387 entries, Toy Story 3 to An Actor Prepares
Data columns (total 4 columns):
 #   Column          Non-Null Count  Dtype  
---  ------          --------------  -----  
 0   studio          3382 non-null   object 
 1   domestic_gross  3359 non-null   float64
 2   foreign_gross   2037 non-null   object 
 3   year            3387 non-null   int64  
dtypes: float64(1), int64(1), object(2)
memory usage: 132.3+ KB
```

In [9]:
```
df_studio.head()
```

Out[9]:

| title | studio | domestic_gross | foreign_gross | year |
|---|---|---|---|---|
| **Toy Story 3** | BV | 415000000.0 | 652000000 | 2010 |
| **Alice in Wonderland (2010)** | BV | 334200000.0 | 691300000 | 2010 |
| **Harry Potter and the Deathly Hallows Part 1** | WB | 296000000.0 | 664300000 | 2010 |
| **Inception** | WB | 292600000.0 | 535700000 | 2010 |
| **Shrek Forever After** | P/DW | 238700000.0 | 513900000 | 2010 |

In [12]:
```
pd.to_numeric(s,errors = 'coerce')
```

Out[12]:
```
title
Toy Story 3                                    652000000.0
Alice in Wonderland (2010)                     691300000.0
Harry Potter and the Deathly Hallows Part 1    664300000.0
Inception                                      535700000.0
Shrek Forever After                            513900000.0
                                                   ...
The Quake                                            NaN
Edward II (2018 re-release)                          NaN
El Pacto                                             NaN
The Swan                                             NaN
An Actor Prepares                                    NaN
Name: foreign_gross, Length: 3387, dtype: float64
```

In [13]:
```
df_studio['foreign_gross'] = pd.to_numeric(df_studio['foreign_gross'], erro
```

In [14]:
```
df_studio.info()
```

```
<class 'pandas.core.frame.DataFrame'>
Index: 3387 entries, Toy Story 3 to An Actor Prepares
Data columns (total 4 columns):
 #   Column          Non-Null Count  Dtype  
---  ------          --------------  -----  
 0   studio          3382 non-null   object 
 1   domestic_gross  3359 non-null   float64
 2   foreign_gross   2032 non-null   float64
 3   year            3387 non-null   int64  
dtypes: float64(2), int64(1), object(1)
memory usage: 292.3+ KB
```

In [15]:
```
df_studio['foreign_gross'] = df_studio['foreign_gross'].fillna(0)
```

In [16]:
```
df_studio['Total_gross'] = df_studio['domestic_gross'] + df_studio['foreign_
```

In [20]:
```
df_studio_1 = df_studio.groupby(['studio']).sum().sort_values(by = 'Total_gr
```

In [21]:
```
df_studio_1
```

Out[21]:

| studio | domestic_gross | foreign_gross | year | Total_gross |
|---|---|---|---|---|
| **BV** | 1.841903e+10 | 2.579385e+10 | 213451 | 4.421288e+10 |
| **Fox** | 1.094950e+10 | 2.005587e+10 | 273882 | 3.100537e+10 |
| **WB** | 1.216805e+10 | 1.866790e+10 | 281941 | 3.083595e+10 |
| **Uni.** | 1.290239e+10 | 1.685477e+10 | 296082 | 2.975716e+10 |
| **Sony** | 8.459683e+09 | 1.394535e+10 | 221575 | 2.240492e+10 |
| **...** | ... | ... | ... | ... |
| **Hiber** | 3.600000e+03 | 0.000000e+00 | 2017 | 3.600000e+03 |
| **ALP** | 2.800000e+03 | 0.000000e+00 | 2011 | 2.800000e+03 |
| **Synergetic** | 2.400000e+03 | 0.000000e+00 | 2018 | 2.400000e+03 |
| **PI** | 0.000000e+00 | 2.100000e+06 | 2013 | 0.000000e+00 |
| **Myr.** | 0.000000e+00 | 1.800000e+06 | 2012 | 0.000000e+00 |

257 rows × 4 columns

In [22]:
```
df_studio_1['Average_gross'] = df_studio_1['Total_gross'].apply(lambda x: x/
```

In [23]:
```
df_studio_1
```

Out[23]:

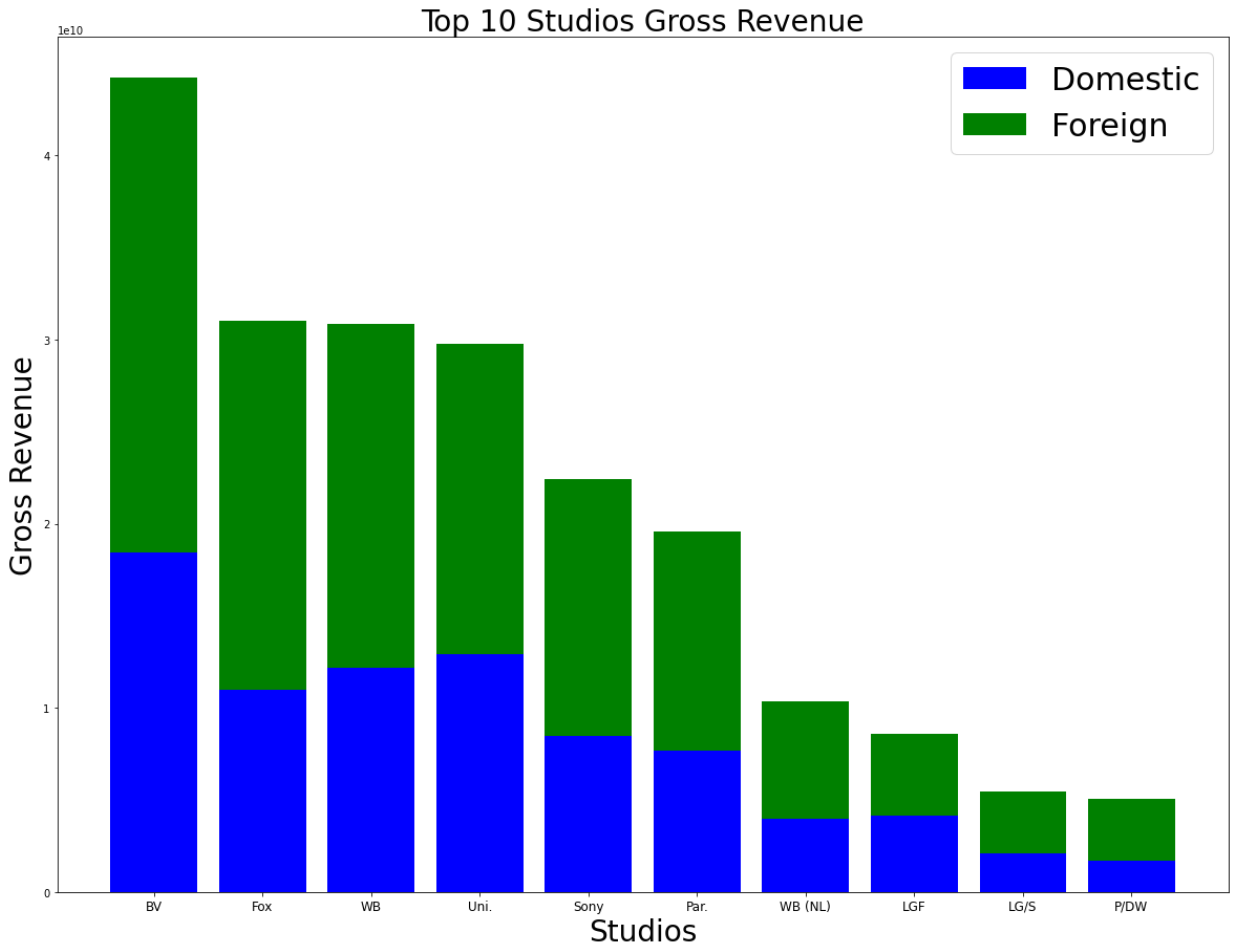
| studio | domestic_gross | foreign_gross | year | Total_gross | Average_gross |
|---|---|---|---|---|---|
| **BV** | 1.841903e+10 | 2.579385e+10 | 213451 | 4.421288e+10 | 4.912542e+09 |
| **Fox** | 1.094950e+10 | 2.005587e+10 | 273882 | 3.100537e+10 | 3.445041e+09 |
| **WB** | 1.216805e+10 | 1.866790e+10 | 281941 | 3.083595e+10 | 3.426217e+09 |
| **Uni.** | 1.290239e+10 | 1.685477e+10 | 296082 | 2.975716e+10 | 3.306351e+09 |
| **Sony** | 8.459683e+09 | 1.394535e+10 | 221575 | 2.240492e+10 | 2.489435e+09 |
| **...** | ... | ... | ... | ... | ... |
| **Hiber** | 3.600000e+03 | 0.000000e+00 | 2017 | 3.600000e+03 | 4.000000e+02 |
| **ALP** | 2.800000e+03 | 0.000000e+00 | 2011 | 2.800000e+03 | 3.111111e+02 |
| **Synergetic** | 2.400000e+03 | 0.000000e+00 | 2018 | 2.400000e+03 | 2.666667e+02 |
| **PI** | 0.000000e+00 | 2.100000e+06 | 2013 | 0.000000e+00 | 0.000000e+00 |
| **Myr.** | 0.000000e+00 | 1.800000e+06 | 2012 | 0.000000e+00 | 0.000000e+00 |

257 rows × 5 columns

In [28]:
```
df_studio_2 = df_studio_1[0:10].sort_values(by = 'Total_gross', ascending =
```

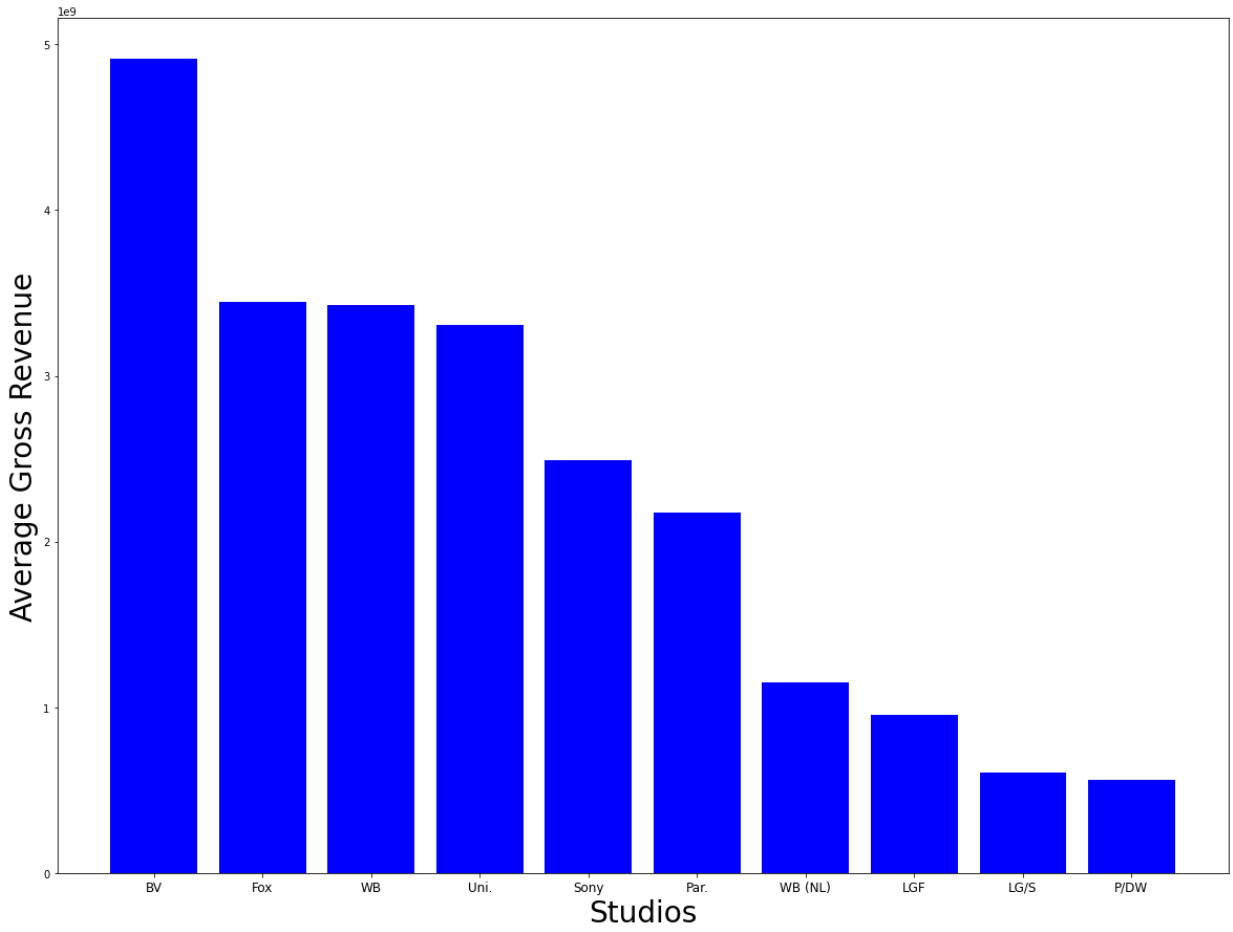
In [30]:
```
labels = df_studio_2.index
plt.figure(figsize=(20,15))
plt.bar(range(len(labels)), df_studio_2.domestic_gross, color='blue')
plt.bar(range(len(labels)), df_studio_2.foreign_gross, color='green', bottor
plt.xticks(range(len(labels)), labels, fontsize = 12)
plt.legend(['Domestic', 'Foreign'], fontsize = 30)
plt.title('Top 10 Studios Gross Revenue', fontsize=28)
plt.xlabel('Studios', fontsize=28)
plt.ylabel('Gross Revenue', fontsize=28)
```

Out[30]:
```
Text(0, 0.5, 'Gross Revenue')
```



In [33]:
```
labels = df_studio_2.index
plt.figure(figsize=(20,15))
plt.bar(range(len(labels)), df_studio_2.Average_gross, color='blue')
plt.xticks(range(len(labels)), labels, fontsize = 12)
plt.xlabel('Studios', fontsize=28)
plt.ylabel('Average Gross Revenue', fontsize=28)
```

Out[33]:
```
Text(0, 0.5, 'Average Gross Revenue')
```




In [ ]:
```
```