Top Video Games 1995-2021 Metacritic

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- Column
  - Name
  - Platform
  - Release_date
  - Summary
  - Meta_score
  - User_Review

데이터 전처리

```python
data = pd.read_csv('/kaggle/input/top-video-games-19952021-metacritic/all_games.csv')

data = data.loc[data['user_review'] != 'tbd']
data = data.astype({'meta_score': "int32", 'user_review': "float32"})

data['release_date'] = pd.to_datetime(data['release_date'])
year = data['release_date'].dt.year
month = data['release_date'].dt.month_name()
day = data['release_date'].dt.day_name()

data.head()
```

	name	platform	release_date	summary	meta_score	user_review
0	The Legend of Zelda: Ocarina of Time	Nintendo 64	1998-11-23	As a young boy, Link is tricked by Ganondorf, ...	99	9.1
1	Tony Hawk's Pro Skater 2	PlayStation	2000-09-20	As most major publishers' development efforts ...	98	7.4
2	Grand Theft Auto IV	PlayStation 3	2008-04-29	[Metacritic's 2008 PS3 Game of the Year; Also ...	98	7.7
3	SoulCalibur	Dreamcast	1999-09-08	This is a tale of souls and swords, transcendi...	98	8.4
4	Grand Theft Auto IV	Xbox 360	2008-04-29	[Metacritic's 2008 Xbox 360 Game of the Year; ...	98	7.9

```python
import matplotlib.pyplot as plt
plt.rcParams["figure.figsize"] = (16, 10)

import seaborn as sns
sns.set_theme()
```
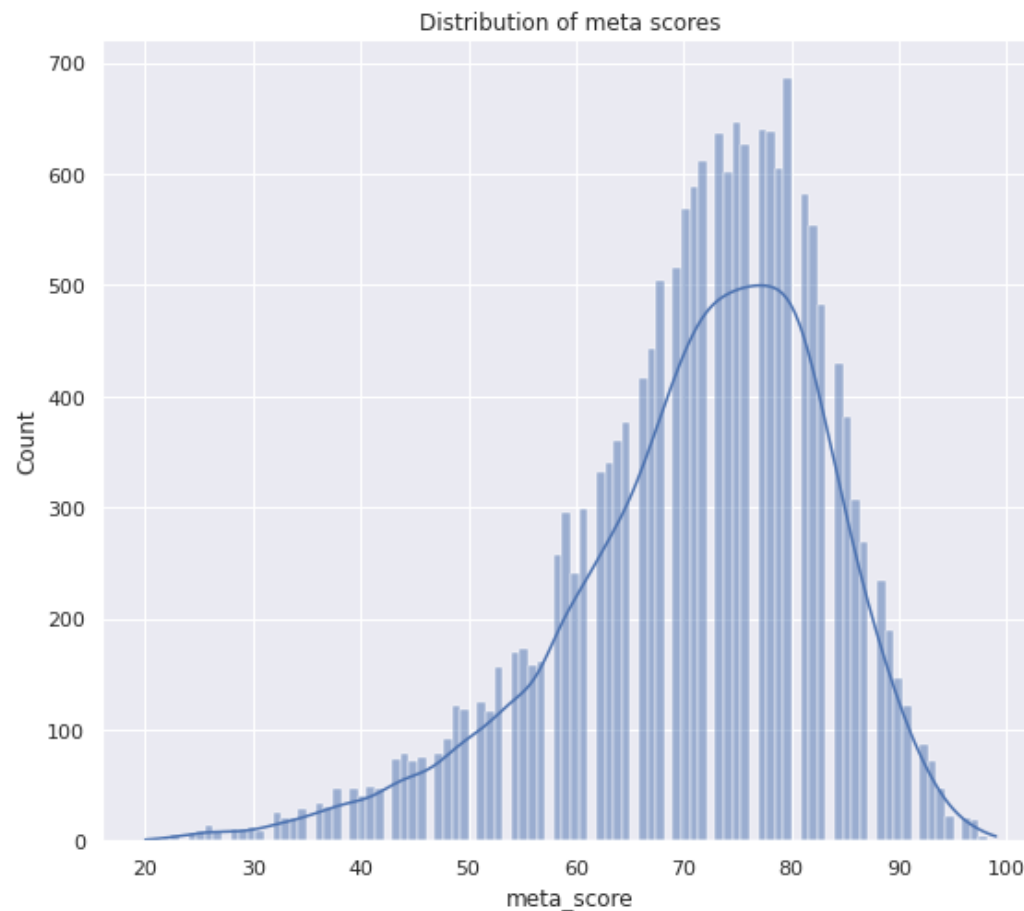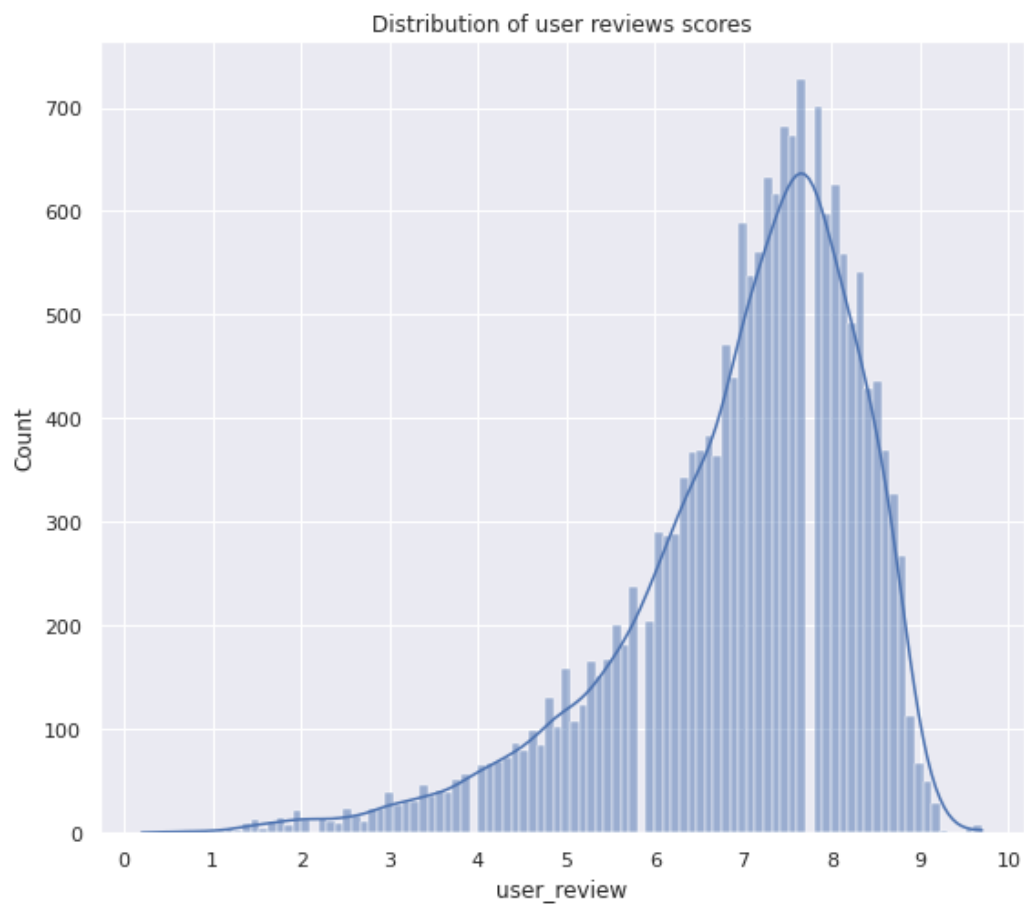
```python
fig, (ax1, ax2) = plt.subplots(1, 2, figsize=(20,8))
sns.histplot(data['user_review'], kde=True, bins=100, ax=ax1).set_title("Distribution of user reviews scores" )
ax1.set_xticks(range(11))
ax1.set_xticklabels(range(11))

sns.histplot(data['meta_score'], kde=True, bins=100, ax=ax2).set_title("Distribution of meta scores")

plt.show()
```

데이터 시각화

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유저 리뷰와 메타 스코어의 차이가 큰 게임

```python
diff_column = data['meta_score'] - data["user_review"] * 10
mask = (diff_column >= diff_column.max() * 0.95) | (diff_column <= diff_column.min() * 0.60)
mask = mask & (year >= 2019)
display(data[mask])
```

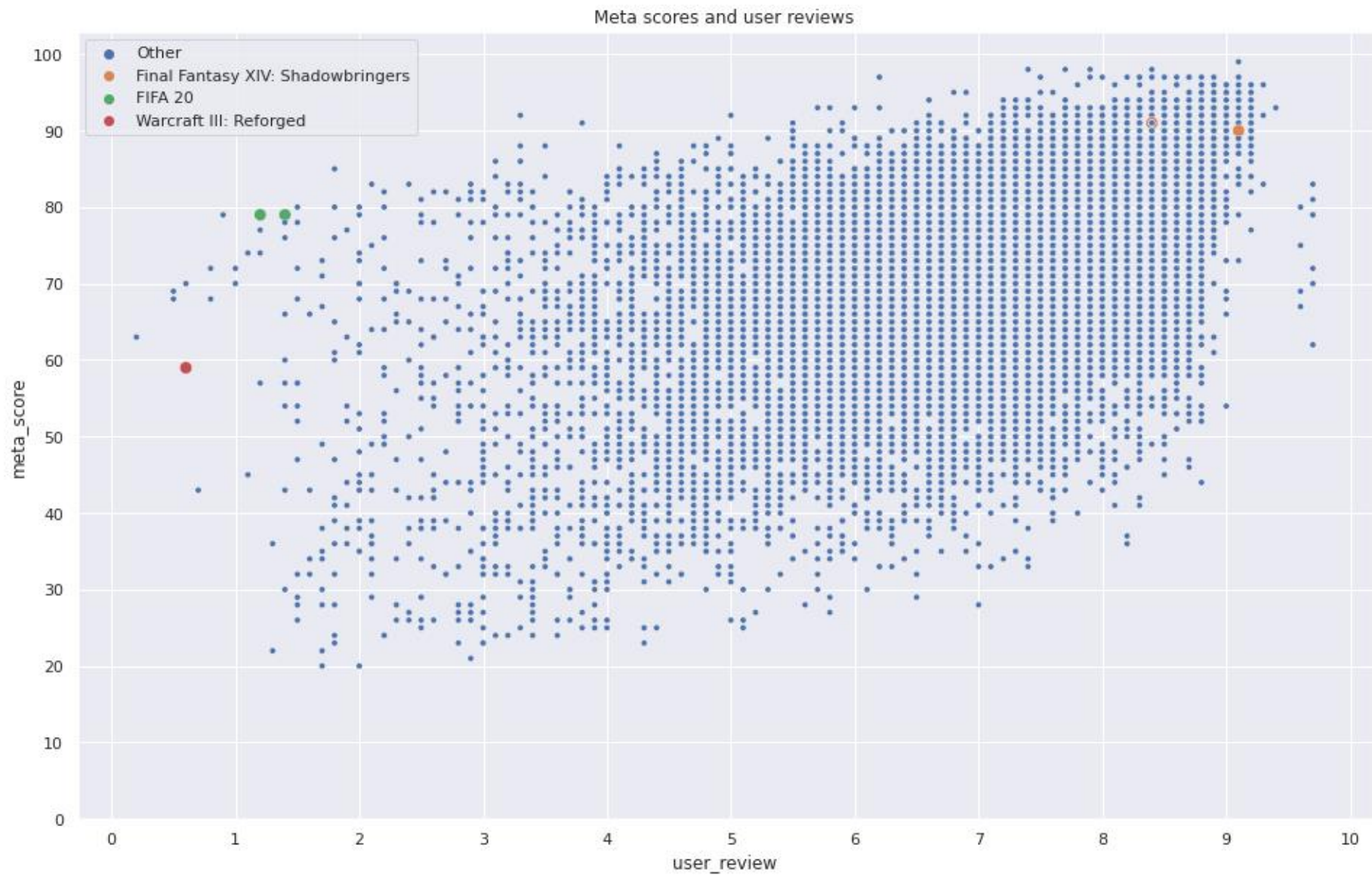|	name	platform	release_date	summary	meta_score	user_review
5222	FIFA 20	PlayStation 4	2019-09-24	Enjoy more control over the Decisive Moments t...	79	1.2
5282	Tom Clancy's The Division 2: Warlords of New York	PC	2020-03-03	While The Division was working to secure Washi...	79	0.9
12434	Crystar	PlayStation 4	2019-08-27	For when I weep, then I am strong. Battle thro...	67	9.6
16759	Terminator: Resistance	PC	2019-12-10	This story takes place in a post-apocalyptic L...	55	8.4
17479	Devil May Cry 2	PC	2019-09-19	Dante, the world's most stylish demon slayer i...	50	7.9
17609	Remothered: Broken Porcelain	PlayStation 3	2020-10-13	Broken Porcelain brings an abundance of welcom...	49	7.8
18434	Tamarin	PlayStation	2020-09-10	SAVE YOUR FAMILY FROM THE INSECT INVASION Expl...	40	6.8
18519	Balan Wonderworld	PC	2021-03-26	BALAN WONDERWORLD is an action platformer game...	38	6.6
18559	Left Alive	PlayStation 4	2019-03-05	Left Alive tells a human story of survival fro...	37	8.2
18735	Tiny Racer	Switch	2020-07-31	Pick your tiny car, push the gas down and star...	29	6.5

```python
color = data['name'].copy()
mask = (color != 'Warcraft III: Reforged') & (color != 'FIFA 20') & (color != 'Final Fantasy XIV: Shadowbringers')

color[mask] = 'Other'
size = color.copy()
size[mask] = 1
size[mask ^ True] = 10
size.name = "sizes"
```

```python
ax = sns.scatterplot(data=data, x="user_review", y="meta_score", hue=color, size=size)

handles, labels = ax.get_legend_handles_labels()
ax.legend(handles=handles[1:5], labels=labels[1:5])

plt.title('Meta scores and user reviews')
xticks = list(range(0, 11))
plt.xticks(xticks)
yticks = list(range(0, 101, 10))
plt.yticks(yticks)
```

Meta scores and user reviews

감사합니다.