gend_diff

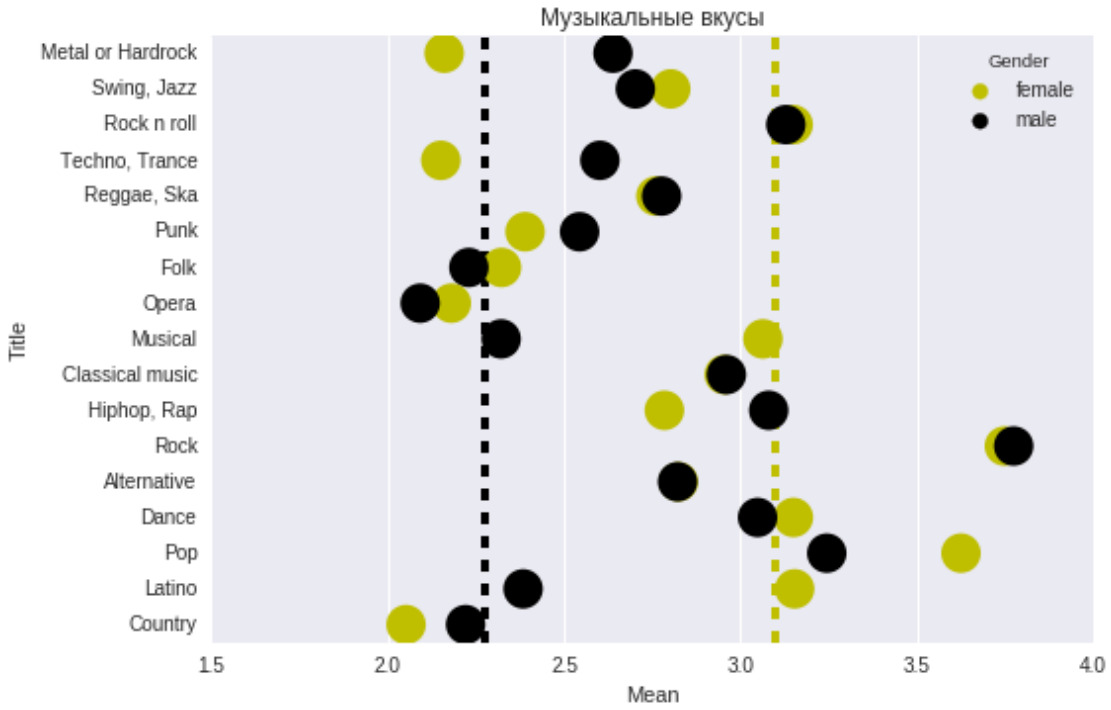
June 19, 2017

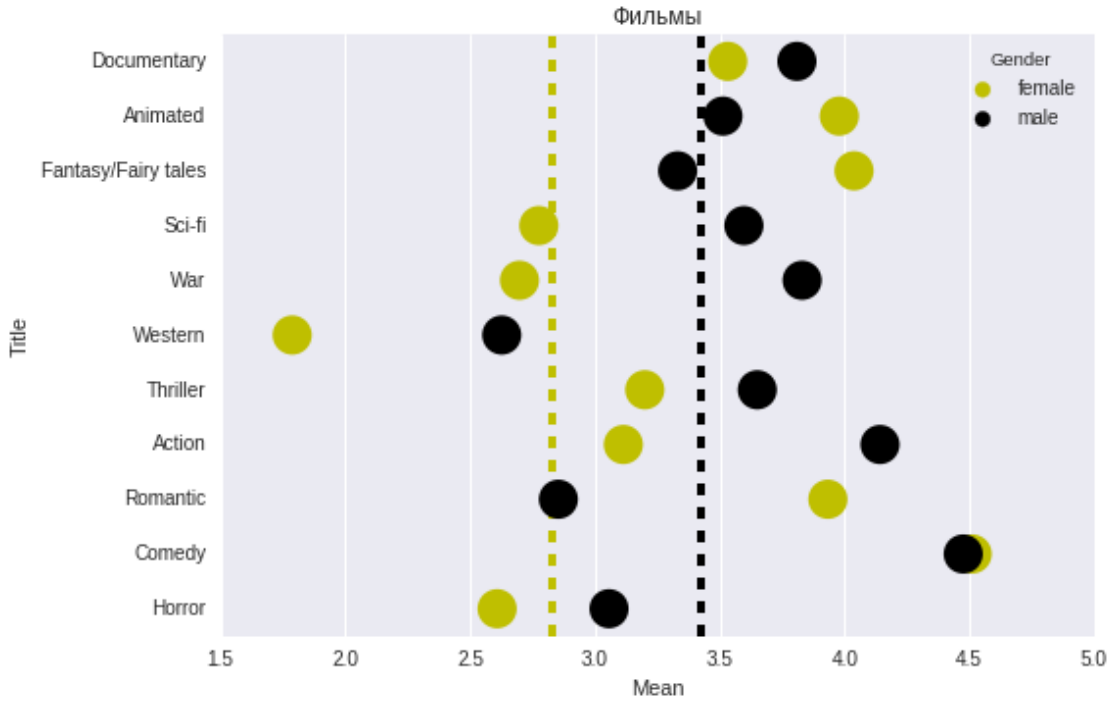
In [1]:
```
import pandas as pd
from pandas import Series
def customDescribe(x):
    data1 = [x.mean(), x.std(), x.min(), x.quantile(0.25), x.median(),
             x.quantile(0.75), x.max(), x.skew(), x.kurtosis(), x.mode().max(), x.isnull(
    names = ['mean', 'std', 'min', '25%', '50%', '75%', 'max', 'skewness', 'kurtosis', '
    return Series(data, index=names)



df = pd.read_csv('responses.csv')
x = df.loc[:, 'Dance':'Opera'].join(df['Gender']).groupby('Gender')
x = x.mean()
x.iloc[1]
```

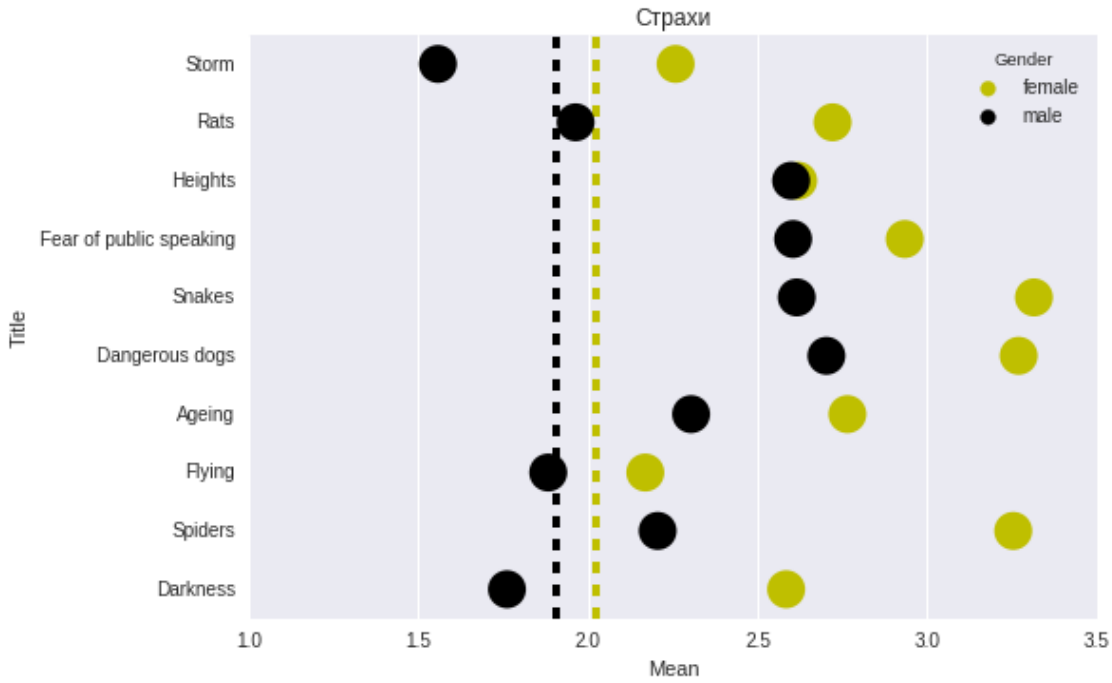
Out[1]:
```
Dance                3.048900
Folk                 2.230392
Country              2.221130
Classical music      2.960688
Musical              2.321951
Pop                  3.245098
Rock                 3.775061
Metal or Hardrock    2.639024
Punk                 2.544335
Hiphop, Rap          3.080488
Reggae, Ska          2.776961
Swing, Jazz          2.702439
Rock n roll          3.128954
Alternative          2.821951
Latino               2.384236
Techno, Trance       2.601966
Opera                2.092457
Name: male, dtype: float64
```

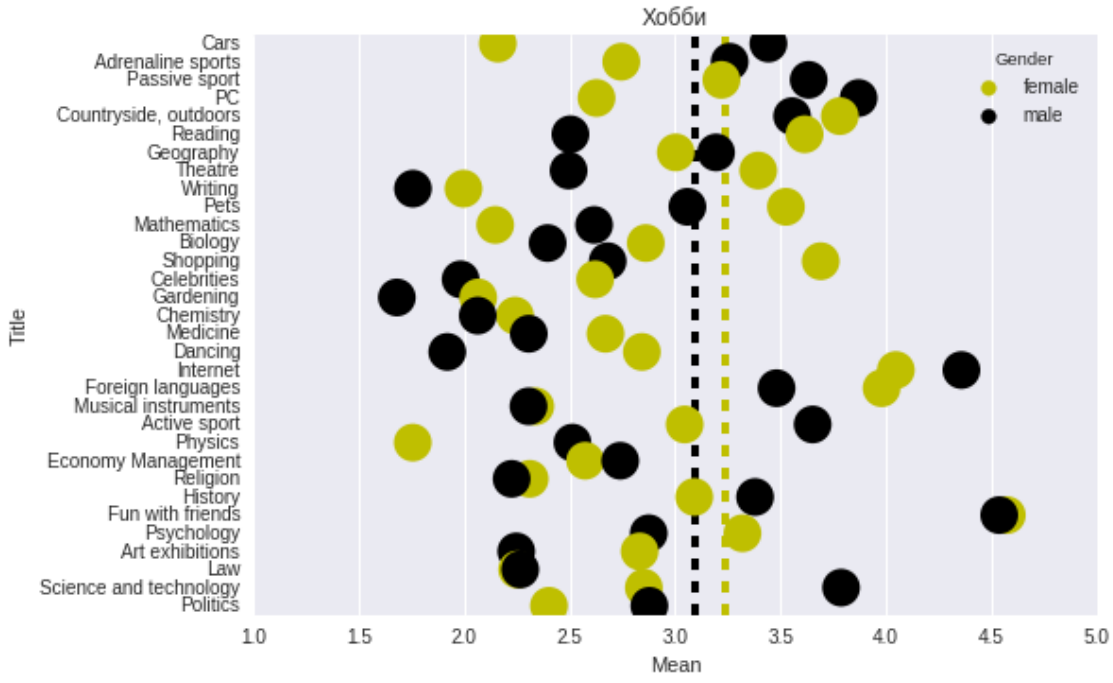
In [8]:
```
import matplotlib.pyplot as plt
import seaborn as sns
import numpy as np
```

```
def analyze_group_differences (df, group, begin, end, plt_title):
    groups = df.loc[:,begin:end].join(df[group]).groupby(group).mean()
    x= [i for i in  groups.iterrows()]
    res = []
    for i,s in x:
        for k,v in s.to_dict().items():
            res.append((i, k, v))
    new_df = pd.DataFrame(data = res, columns = [ 'Gender', 'Title', 'Mean'])
    sns.stripplot(data=new_df, x = 'Mean', y = 'Title', hue= 'Gender', orient='h', palet

                  size = 20);
    plt.axvline(x=np.mean(groups.mean().iloc[0]), color='y', lw=4, ls='dashed')
    plt.axvline(x=np.mean(groups.mean().iloc[1]), color='k', lw=4, ls='dashed')
    plt.title(plt_title)
    plt.show()

analyze_group_differences(df=df, group ='Gender', begin = 'Dance', end = 'Opera', plt_ti
analyze_group_differences(df=df, group ='Gender', begin = 'Horror', end = 'Action', plt_
analyze_group_differences(df=df, group ='Gender', begin = 'Flying', end = 'Fear of publi
analyze_group_differences(df=df, group ='Gender', begin = 'History', end = 'Pets', plt_t
```




Фильмы
Documentary
Animated
Fantasy/Fairy tales
Sci-fi
War
Western
Thriller
Action
Romantic
Comedy
Horror
Title
Gender
female
male
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
Mean


Страхи
Storm
Rats
Heights
Fear of public speaking
Snakes
Dangerous dogs
Ageing
Flying
Spiders
Darkness
Title
Gender
female
male
1.0
1.5
2.0
2.5
3.0
3.5
Mean


Хобби
Cars
Adrenaline sports
Passive sport
PC
Countryside, outdoors
Reading
Geography
Theatre
Writing
Pets
Mathematics
Biology
Shopping
Celebrities
Gardening
Chemistry
Medicine
Dancing
Internet
Foreign languages
Musical instruments
Active sport
Physics
Economy Management
Religion
History
Fun with friends
Psychology
Art exhibitions
Law
Science and technology
Politics
Title
Gender
female
male
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
Mean

In [ ]: