Seaborn Tutorial

Distribution Plot

1. Distplot
2. Joinplot
3. Pairplot

```
In [8]:
import seaborn as sns
import numpy as np
import pandas as pd
import matplotlib as plt
```

```
In [9]:
df= pd.read_csv('C:/Users/anirb/OneDrive/Documents/Spotify project/SpotifyFeatures.csv')
```

```
In [10]:
df.head()
```

Out[10]:

	genre	artist_name	track_name	track_id	popularity	acousticness	danceability	duration_ms
0	Movie	Henri Salvador	C'est beau de faire un Show	0BRjO6ga9RKCKjfDqeFgWV	0	0.611	0.389	99373
1	Movie	Martin & les fées	Perdu d'avance (par Gad Elmaleh)	0BjC1NfoEOOusryehmNudP	1	0.246	0.590	137373
2	Movie	Joseph Williams	Don't Let Me Be Lonely Tonight	0CoSDzoNIKCRs124s9uTVy	3	0.952	0.663	170267
3	Movie	Henri Salvador	Dis-moi Monsieur Gordon Cooper	0Gc6TVm52BwZD07Ki6tIvf	0	0.703	0.240	152427
4	Movie	Fabien Nataf	Ouverture	0IuslXpMROHdEPvSl1fTQK	4	0.950	0.331	82625

Correlation with Heatmap

A correlation heapmap used to color cells and show a 2D correlation matrix between discrete dimenssions or event types.
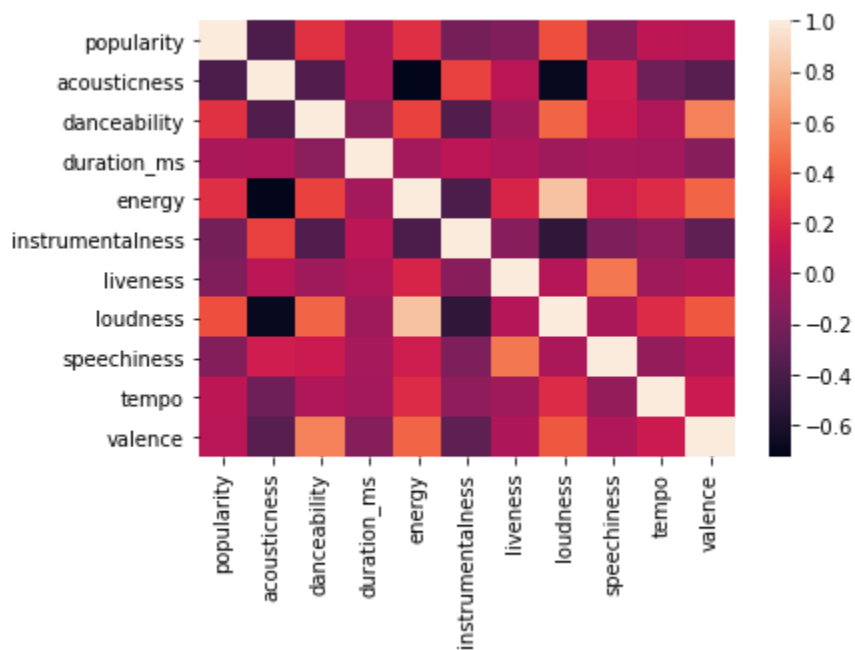
```
In [11]:
df.corr()
```

Out[11]:

	popularity	acousticness	danceability	duration_ms	energy	instrumentalness	liveness	lou
popularity	1.000000	-0.381295	0.256564	0.002348	0.248922	-0.210983	-0.167995	0.3
acousticness	-0.381295	1.000000	-0.364546	0.011203	-0.725576	0.316154	0.069004	-0.6
danceability	0.256564	-0.364546	1.000000	-0.125781	0.325807	-0.364941	-0.041684	0.4

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	popularity	acousticness	danceability	duration_ms	energy	instrumentalness	liveness	lou
duration_ms	0.002348	0.011203	-0.125781	1.000000	-0.030550	0.076021	0.023783	-0.0
energy	0.248922	-0.725576	0.325807	-0.030550	1.000000	-0.378957	0.192801	0.8
instrumentalness	-0.210983	0.316154	-0.364941	0.076021	-0.378957	1.000000	-0.134198	-0.5
liveness	-0.167995	0.069004	-0.041684	0.023783	0.192801	-0.134198	1.000000	0.0
loudness	0.363011	-0.690202	0.438668	-0.047618	0.816088	-0.506320	0.045686	1.0
speechiness	-0.151076	0.150935	0.134560	-0.016171	0.145120	-0.177147	0.510147	-0.0
tempo	0.081039	-0.238247	0.021939	-0.028456	0.228774	-0.104133	-0.051355	0.2
valence	0.060076	-0.325798	0.547154	-0.141811	0.436771	-0.307522	0.011804	0.3

In [13]:
```python
sns.heatmap(df.corr())
```
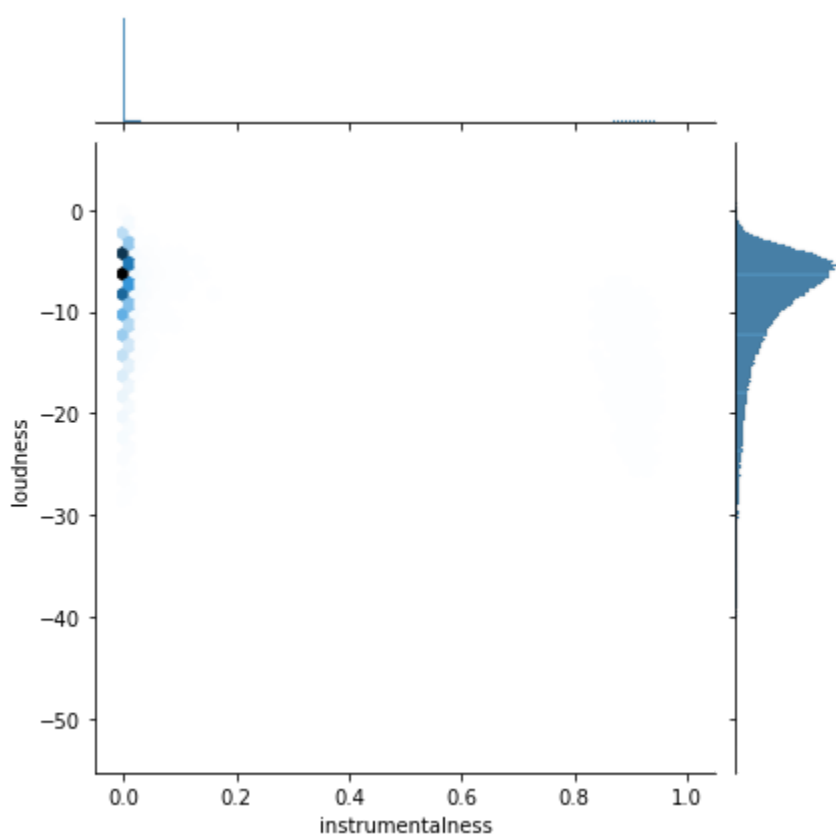
Out[13]: `<AxesSubplot:>`

Joint Plot

A jointplot allows to study the relationship between 2 numeric variables.the central chart represent their corelation.It is usually a scatter plot ,a hexbin plot, a 2D histogram or a density plot.
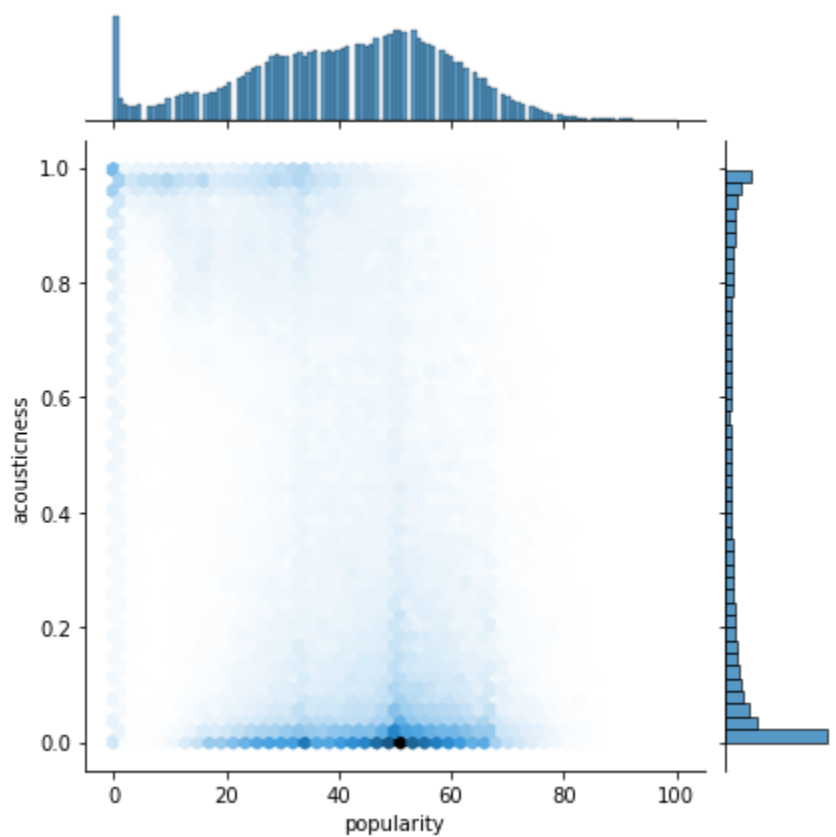
In [14]:
```python
sns.jointplot(x='instrumentalness',y='loudness',data= df,kind= 'hex')
```
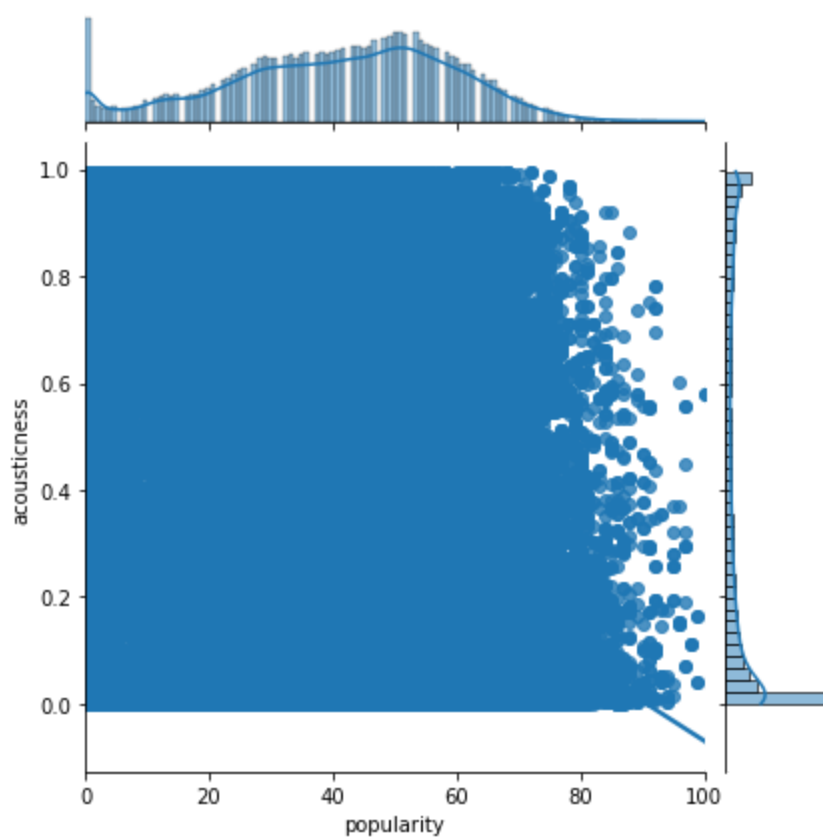
Out[14]: `<seaborn.axisgrid.JointGrid at 0x1c30abe59d0>`

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`sns.jointplot(x='popularity',y='acousticness',data= df,kind= 'hex')`

`<seaborn.axisgrid.JointGrid at 0x1c30f348a90>`

`sns.jointplot(x='popularity',y='acousticness',data= df,kind= 'reg')`

`<seaborn.axisgrid.JointGrid at 0x1c30f9b3970>`

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Pairplot

If we want to show more than one feature comparing with other variable then we use Pairplot.It is also known as scatterplot.

```
In [20]:   sns.pairplot(df)
```

Out[20]:   <seaborn.axisgrid.PairGrid at 0x1c32032a9a0>

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