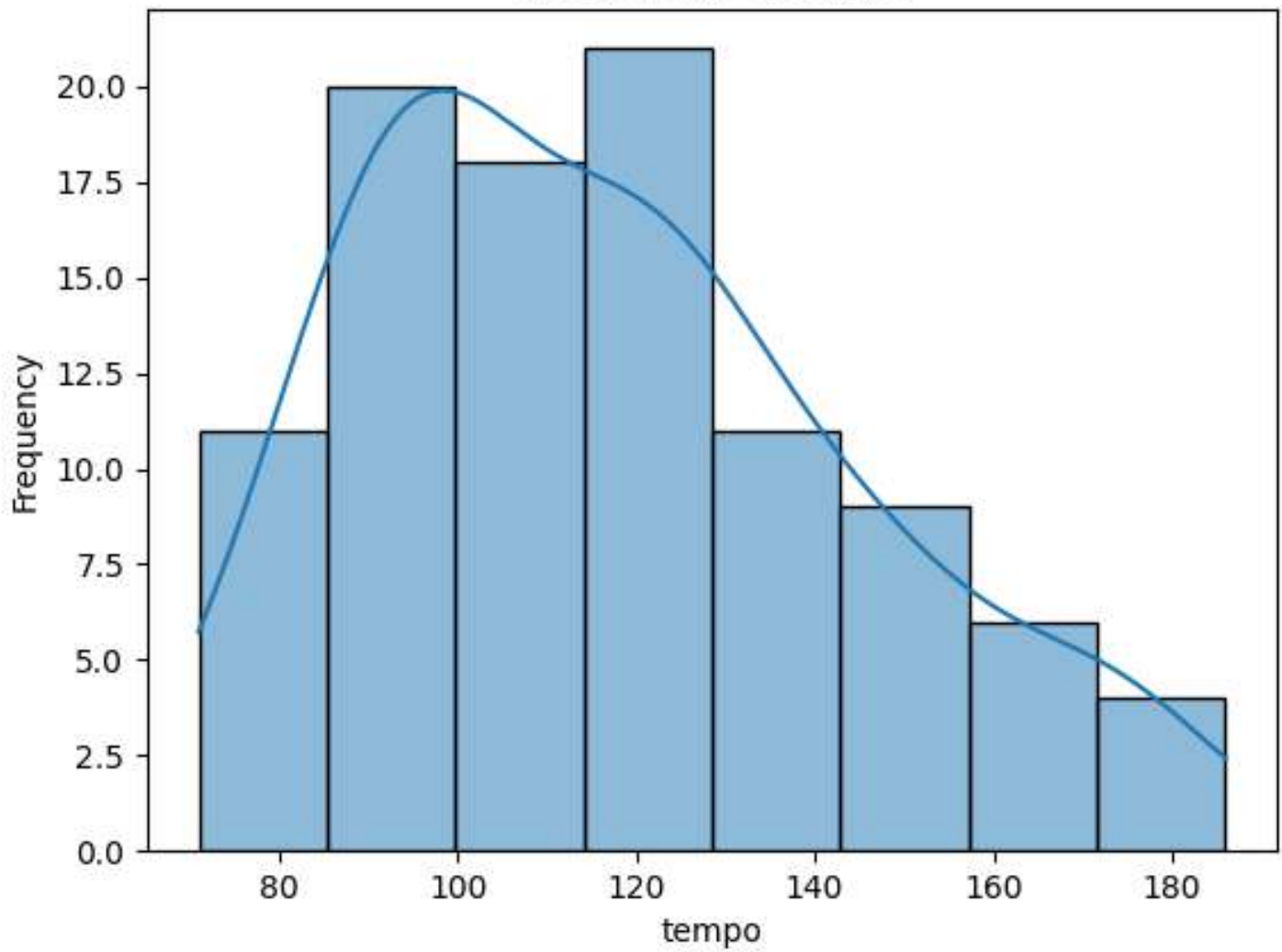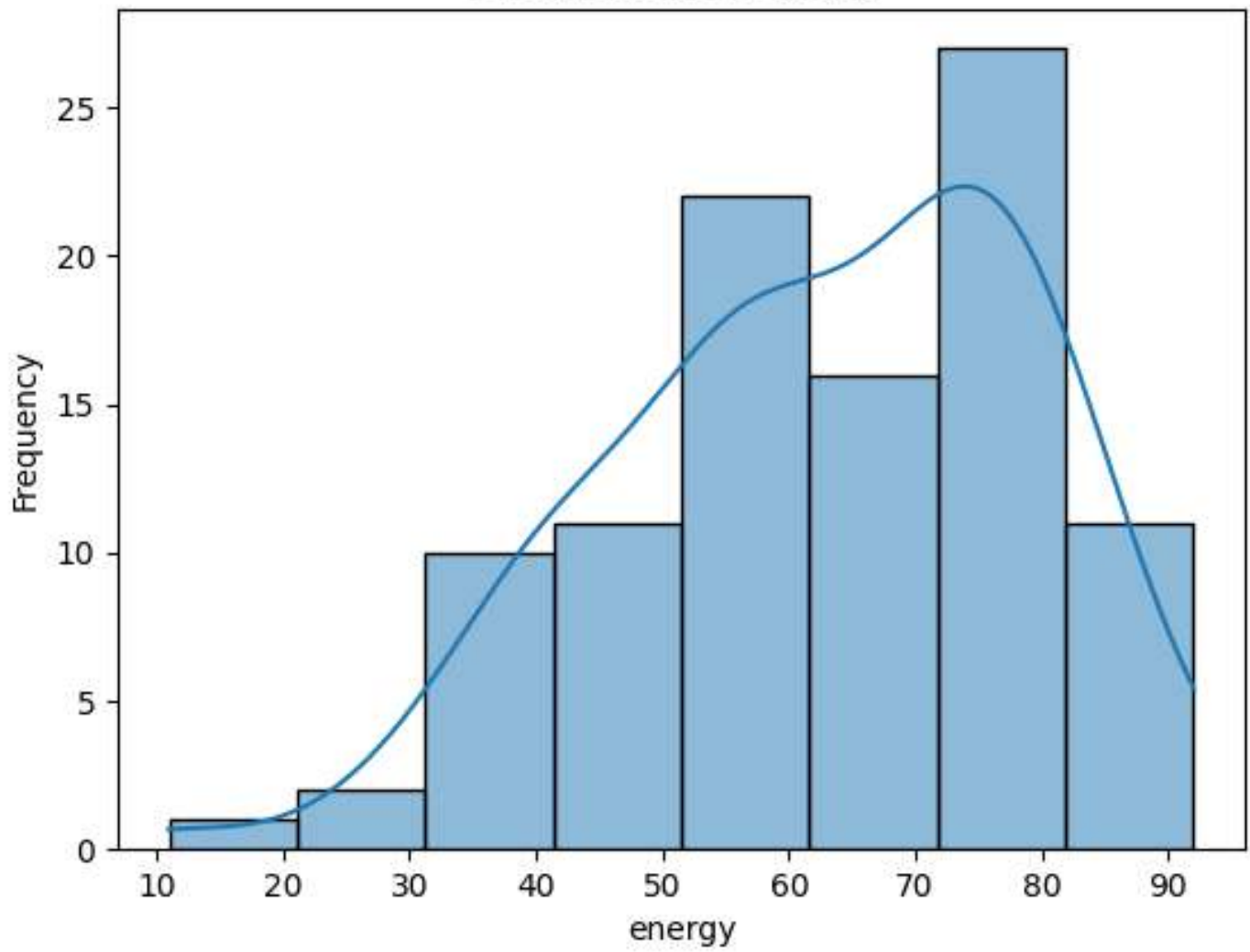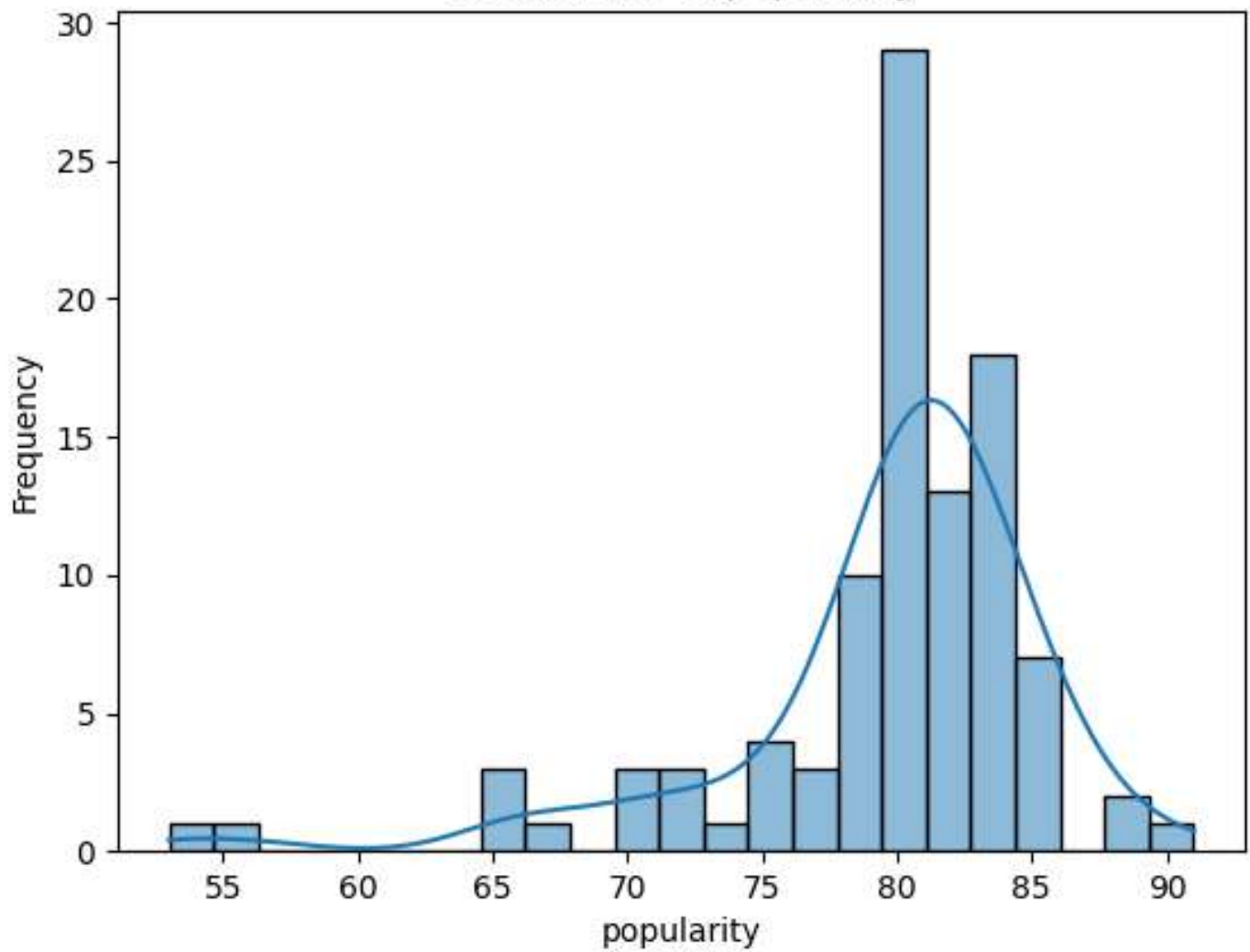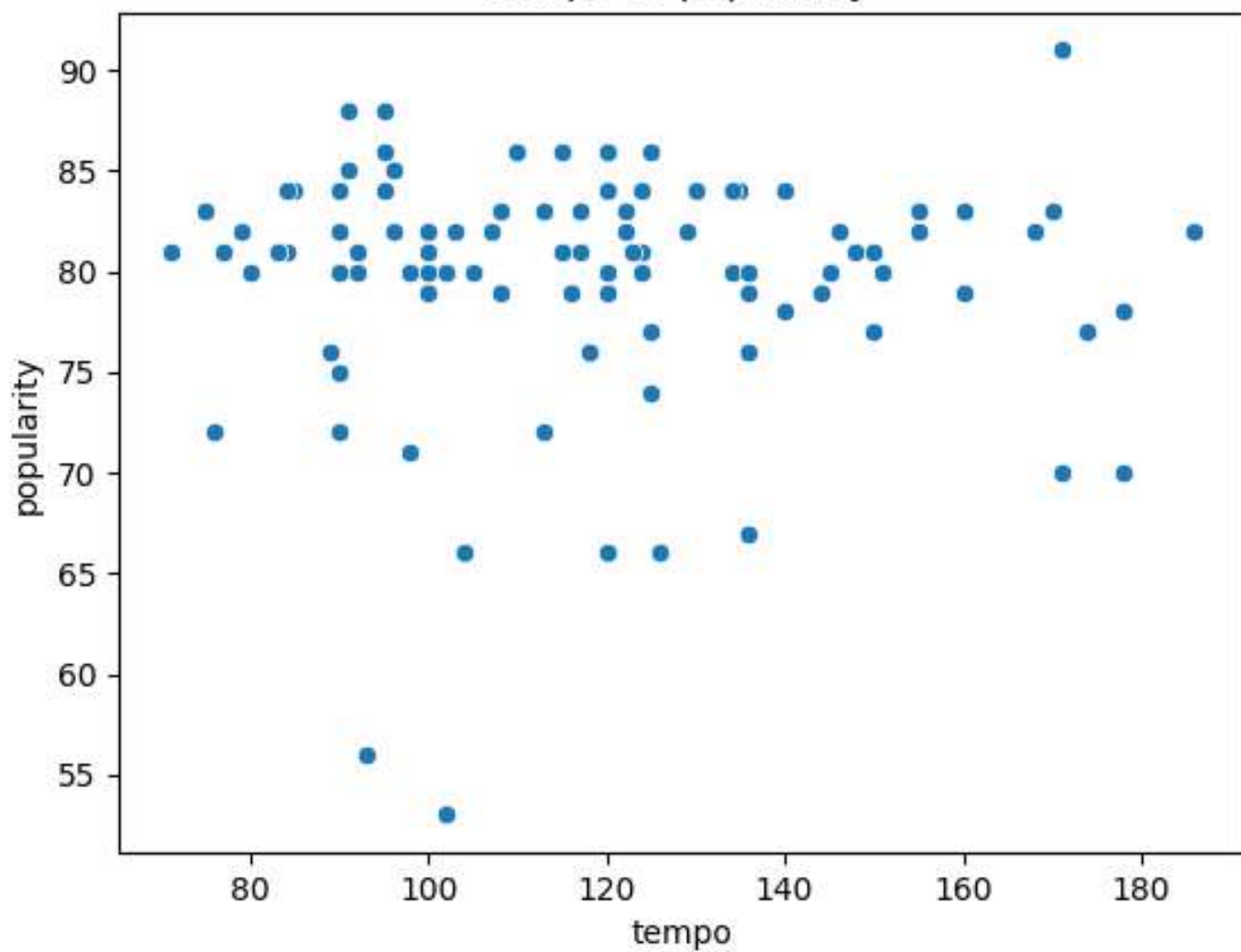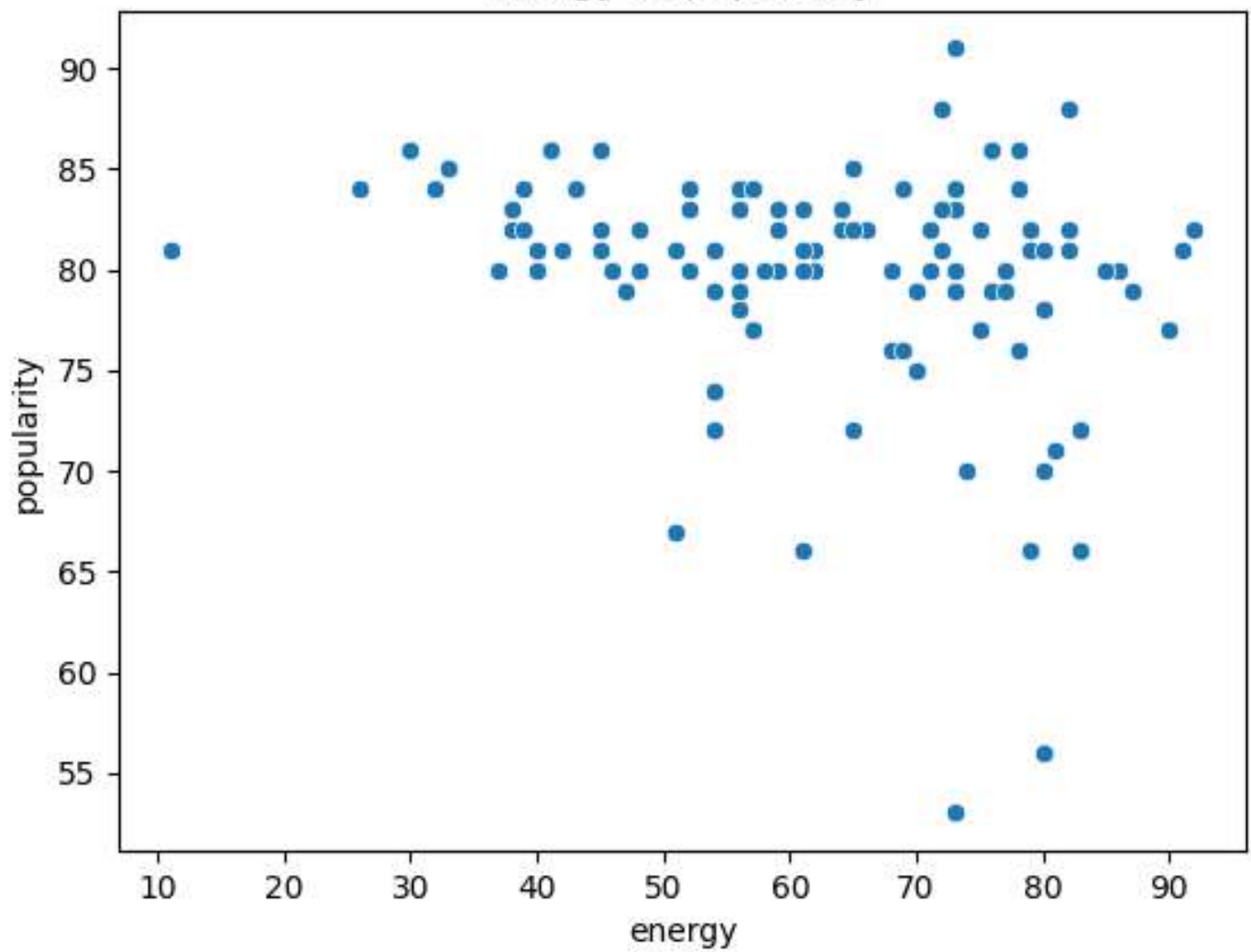Distribution of tempo

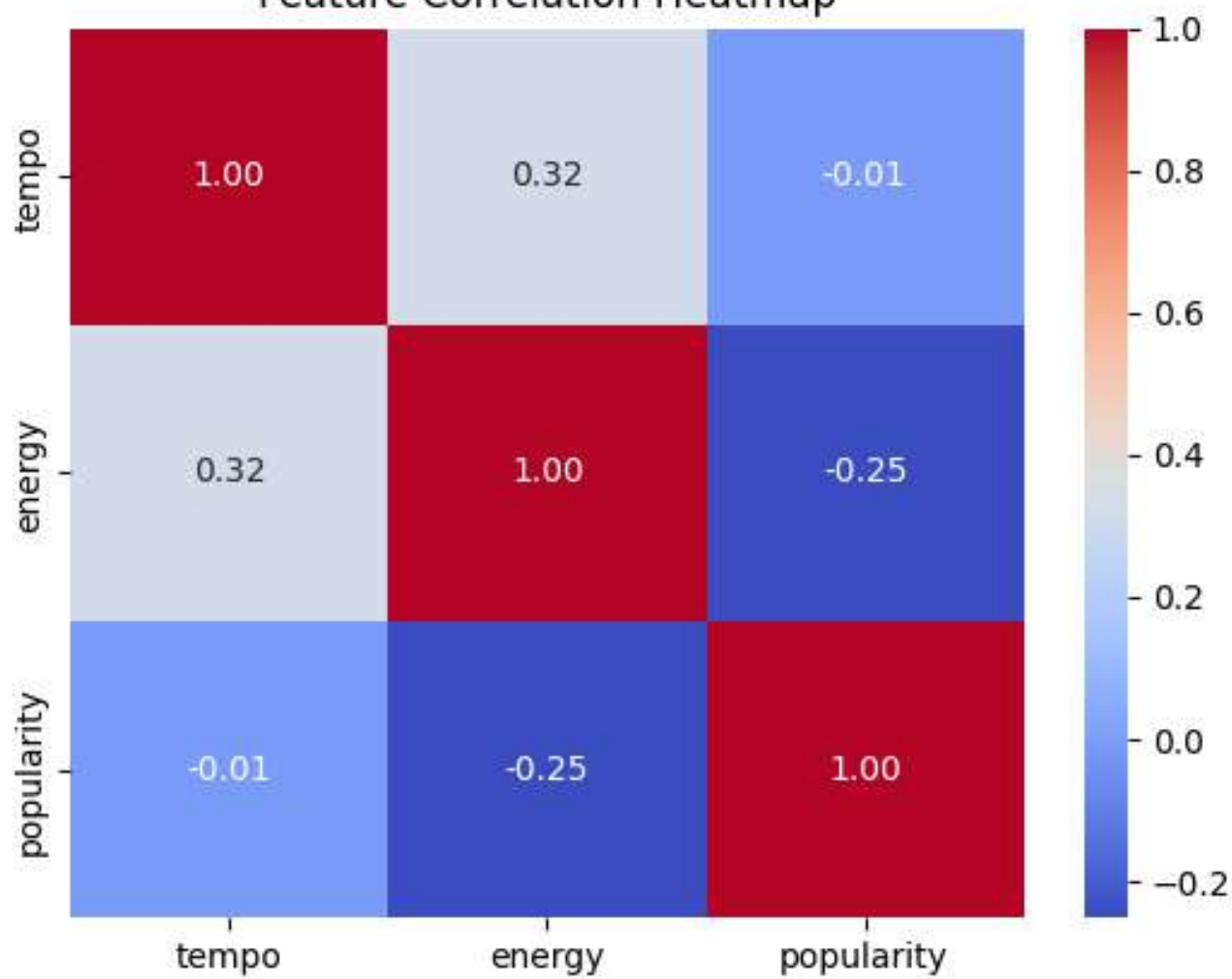Distribution of energy

Distribution of popularity

tempo vs popularity

energy vs popularity

Feature Correlation Heatmap

```
PS D:\vscode> & C:/Users/acer/AppData/Local/Microsoft/WindowsApps/python3.11.exe d:/vscode/project 1/spotify.py
                      title         artist            top genre  year  tempo  energy  danceability  loudness.dB  liveness  valance  length  acousticness  speechiness  popularity
0           Blinding Lights     The Weeknd  canadian contemporary r&b  2020    171      73            51           -6         9       33     200             0            6          91
1          Watermelon Sugar   Harry Styles                   pop  2019     95      82            55           -4        34       56     174            12            5          88
2  Mood (feat. iann dior)       24kGoldn              cali rap  2021     91      72            70           -4        32       73     141            17            4          88
3        Someone You Loved  Lewis Capaldi                   pop  2019    110      41            50           -6        11       45     182            75            3          86
4                  Perfect     Ed Sheeran                   pop  2017     95      45            60           -6        11       17     263            16            2          86
Missing Values:
 title          0
artist          0
top genre       0
year            0
tempo           0
energy          0
danceability    0
loudness.dB     0
liveness        0
valance         0
length          0
acousticness    0
speechiness     0
popularity      0
dtype: int64

Basic Statistics:
              year        tempo        energy  danceability  loudness.dB    liveness     valance      length  acousticness  speechiness  popularity
count   100.000000   100.000000   100.000000     100.00000   100.000000  100.000000  100.000000  100.000000     100.00000   100.000000  100.000000
mean   2015.960000   116.970000    62.680000      66.96000    -6.100000   16.860000   49.970000  214.530000      24.95000     9.930000   79.670000
std       5.327497    27.470629    16.491737      13.60401     1.987334   12.972403   21.737857   35.934974      26.27876     9.424077    5.905065
min    1975.000000    71.000000    11.000000      35.00000   -14.000000    3.000000    6.000000  119.000000       0.00000     2.000000   53.000000
25%    2015.000000    95.000000    52.000000      59.00000    -7.000000   10.000000   33.750000  190.500000       4.00000     4.000000   79.000000
50%    2017.000000   115.000000    64.500000      69.00000    -6.000000   12.000000   48.000000  210.000000      13.00000     6.000000   81.000000
75%    2018.000000   135.250000    76.000000      77.00000    -5.000000   17.250000   66.000000  234.250000      41.50000    11.000000   83.000000
max    2021.000000   186.000000    92.000000      91.00000    -3.000000   79.000000   93.000000  354.000000      98.00000    46.000000   91.000000
Correlation between tempo and popularity: -0.01 (p-value: 0.948)
Correlation between energy and popularity: -0.25 (p-value: 0.012)

Analysis Complete! Use visualizations and correlations to interpret the results.
```