15. Scenario: You are a data analyst working for a social media platform. As part of your analysis,

you have a dataset containing user interaction data, including the number of likes received by each

post. Your task is to develop a Python program that calculates the frequency distribution of likes

among the posts.

Question: Develop a Python program to calculate the frequency distribution of likes among the

posts?

**Code:**

import pandas as pd

import matplotlib.pyplot as plt

df = pd.read\_csv(r"C:\Users\jampa\Downloads\user\_interaction\_data.csv")

like\_distribution = df['likes'].value\_counts().sort\_index()

print("Frequency Distribution of Likes:")

print(like\_distribution)

like\_distribution.plot(kind='bar', figsize=(10, 6), title='Frequency Distribution of Likes')

plt.xlabel('Number of Likes')

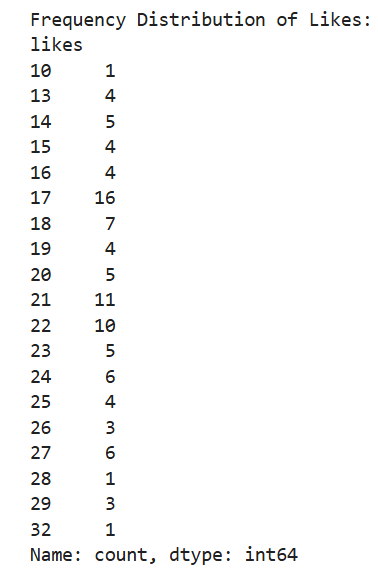
plt.ylabel('Number of Posts')

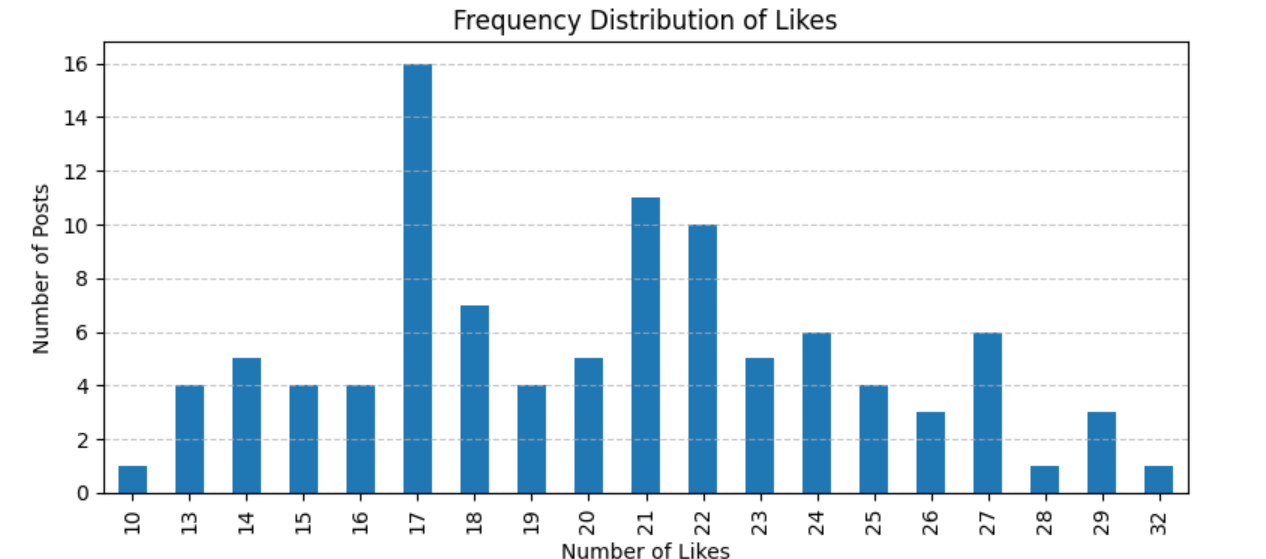
plt.grid(axis='y', linestyle='--', alpha=0.7)

plt.tight\_layout()

plt.show()

**output:**





**Dataset:**

|  |  |  |
| --- | --- | --- |
| post\_id | likes |  |
| post\_1 | 23 |  |
| post\_2 | 15 |  |
| post\_3 | 21 |  |
| post\_4 | 25 |  |
| post\_5 | 15 |  |
| post\_6 | 17 |  |
| post\_7 | 19 |  |
| post\_8 | 21 |  |
| post\_9 | 17 |  |
| post\_10 | 19 |  |
| post\_11 | 16 |  |
| post\_12 | 21 |  |
| post\_13 | 21 |  |
| post\_14 | 17 |  |
| post\_15 | 22 |  |
| post\_16 | 14 |  |
| post\_17 | 17 |  |
| post\_18 | 17 |  |
| post\_19 | 21 |  |
| post\_20 | 21 |  |
| post\_21 | 13 |  |
| post\_22 | 18 |  |
| post\_23 | 25 |  |
| post\_24 | 17 |  |
| post\_25 | 24 |  |
| post\_26 | 23 |  |
| post\_27 | 24 |  |
| post\_28 | 18 |  |
| post\_29 | 26 |  |
| post\_30 | 18 |  |
| post\_31 | 17 |  |
| post\_32 | 23 |  |
| post\_33 | 26 |  |
| post\_34 | 14 |  |
| post\_35 | 24 |  |
| post\_36 | 24 |  |
| post\_37 | 20 |  |
| post\_38 | 17 |  |
| post\_39 | 27 |  |
| post\_40 | 19 |  |
| post\_41 | 16 |  |
| post\_42 | 17 |  |
| post\_43 | 28 |  |
| post\_44 | 24 |  |
| post\_45 | 27 |  |
| post\_46 | 17 |  |
| post\_47 | 16 |  |
| post\_48 | 19 |  |
| post\_49 | 14 |  |
| post\_50 | 29 |  |
| post\_51 | 20 |  |
| post\_52 | 32 |  |
| post\_53 | 20 |  |
| post\_54 | 17 |  |
| post\_55 | 21 |  |
| post\_56 | 10 |  |
| post\_57 | 27 |  |
| post\_58 | 14 |  |
| post\_59 | 22 |  |
| post\_60 | 16 |  |
| post\_61 | 18 |  |
| post\_62 | 22 |  |
| post\_63 | 13 |  |
| post\_64 | 17 |  |
| post\_65 | 22 |  |
| post\_66 | 20 |  |
| post\_67 | 22 |  |
| post\_68 | 23 |  |
| post\_69 | 29 |  |
| post\_70 | 18 |  |
| post\_71 | 17 |  |
| post\_72 | 25 |  |
| post\_73 | 20 |  |
| post\_74 | 27 |  |
| post\_75 | 18 |  |
| post\_76 | 26 |  |
| post\_77 | 22 |  |
| post\_78 | 21 |  |
| post\_79 | 13 |  |
| post\_80 | 21 |  |
| post\_81 | 22 |  |
| post\_82 | 23 |  |
| post\_83 | 18 |  |
| post\_84 | 22 |  |
| post\_85 | 22 |  |
| post\_86 | 13 |  |
| post\_87 | 17 |  |
| post\_88 | 27 |  |
| post\_89 | 24 |  |
| post\_90 | 21 |  |
| post\_91 | 15 |  |
| post\_92 | 17 |  |
| post\_93 | 22 |  |
| post\_94 | 27 |  |
| post\_95 | 17 |  |
| post\_96 | 25 |  |
| post\_97 | 15 |  |
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| post\_99 | 21 |  |
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