

```

import pandas as pd
from collections import Counter
import matplotlib.pyplot as plt

data = {
    'customer_id': [101, 102, 103, 104, 105, 106, 107, 108, 109, 110],
    'customer_age': [25, 30, 22, 40, 35, 30, 25, 22, 40, 30],
    'purchase_amount': [200, 150, 300, 400, 250, 350, 200, 150, 400, 500],
    'purchase_date': pd.to_datetime([
        '2025-03-01', '2025-03-05', '2025-03-10', '2025-03-15',
        '2025-03-20', '2025-03-22', '2025-03-25', '2025-03-26',
        '2025-03-27', '2025-03-29'
    ])
}

sales_data = pd.DataFrame(data)
age_frequency = sales_data['customer_age'].value_counts()
print("Frequency distribution of customer ages:")
print(age_frequency)
plt.figure(figsize=(8, 5))
age_frequency.sort_index().plot(kind='bar', color='skyblue')
plt.title('Frequency Distribution of Customer Ages')
plt.xlabel('Customer Age')
plt.ylabel('Number of Purchases')
plt.grid(axis='y')
plt.show()

```

Output

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Frequency distribution of customer ages:
customer_age
30      3
25      2
22      2
40      2
35      1
Name: count, dtype: int64

```

