5/21/24, 6:54 AM task1 - Colab

```
import pandas as pd
    import matplotlib.pyplot as plt
3
    import seaborn as sns
4
5
    # Load the dataset
    df = pd.read_csv('/content/svm_data.csv')
6
7
8
\overline{\mathbf{x}}
               х1
                        x2 y
      0 0.486861 0.163756 0
      1 0.590718 0.429319 0
      2 0.537981 0.082374 0
      3 0.184411 0.717404 1
        0.825697 0.414670 1
```

**95** 0.497268 0.136202 0

**96** 0.819918 0.334533 1

0.010010 0.001000

**97** 0.328380 0.980288 1

**98** 0.052043 0.489631 1

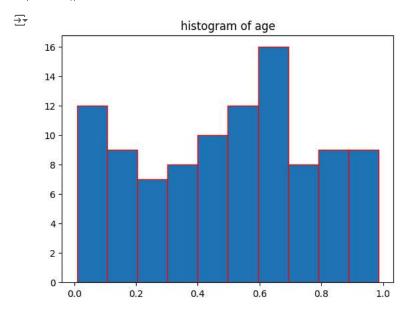
**99** 0.886068 0.930075 0

100 rows × 3 columns

## 1 df.info()

```
<class 'pandas.core.frame.DataFrame'>
   RangeIndex: 100 entries, 0 to 99
   Data columns (total 3 columns):
    # Column Non-Null Count Dtype
   --- -----
    0 x1
               100 non-null
                             float64
    1 x2
               100 non-null
                             float64
               100 non-null
    2 y
                             int64
   dtypes: float64(2), int64(1)
   memory usage: 2.5 KB
```

```
1 plt.hist(df['x1'], bins=10, edgecolor="red")
2 plt.title("histogram of age")
3 plt.show()
```



```
1
2 age_counts = df['x1'].value_counts()
3
4 # Create a bar chart
5 plt.figure(figsize=(10, 6))
6 age_counts.plot(kind='bar', color='pink')
7 plt.title('bar chart')
8 plt.xlabel('x1')
9 plt.ylabel('x2')
10 plt.xticks(rotation=45) # Rotate x-axis labels for better readability
11 plt.grid(axis='y', linestyle='--', alpha=0.7)
12 plt.tight_layout()
13 plt.show()
```

