

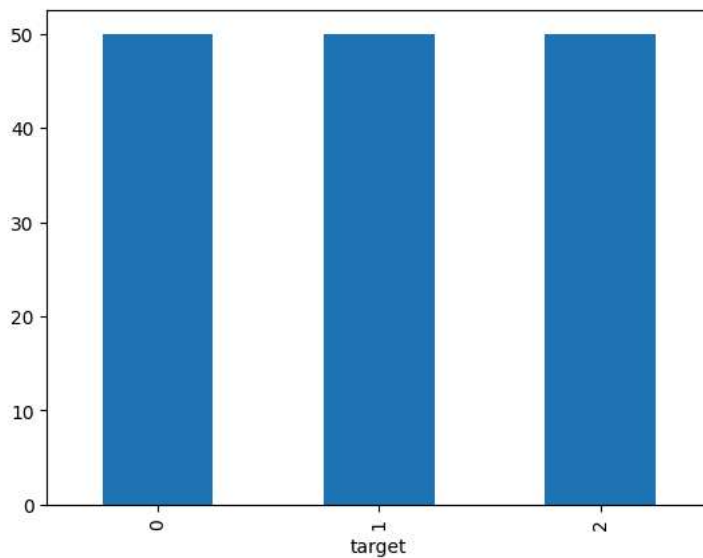
```
# Count target values
class_counts = df['target'].value_counts()

# Plot bar chart
class_counts.plot(kind='bar')

plt.title("Count of Each Iris Class")
plt.xlabel("Class")
plt.ylabel("Count")
plt.show()
```

```
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NameError                                Traceback (most recent call last)
/tmp/ipython-input-490107367.py in <cell line: 0>()
      5 class_counts.plot(kind='bar')
      6
----> 7 plt.title("Count of Each Iris Class")
      8 plt.xlabel("Class")
      9 plt.ylabel("Count")

NameError: name 'plt' is not defined
```



```
# Import required libraries
import pandas as pd
from sklearn.datasets import load_iris

# Load dataset
iris = load_iris()

# Convert to DataFrame
df = pd.DataFrame(iris.data, columns=iris.feature_names)

# Add target column
df['target'] = iris.target

# Display first 5 rows
print(df.head())
```

	sepal length (cm)	sepal width (cm)	petal length (cm)	petal width (cm)	\
0	5.1	3.5	1.4	0.2	
1	4.9	3.0	1.4	0.2	
2	4.7	3.2	1.3	0.2	
3	4.6	3.1	1.5	0.2	
4	5.0	3.6	1.4	0.2	

target
0
1
2
3
4

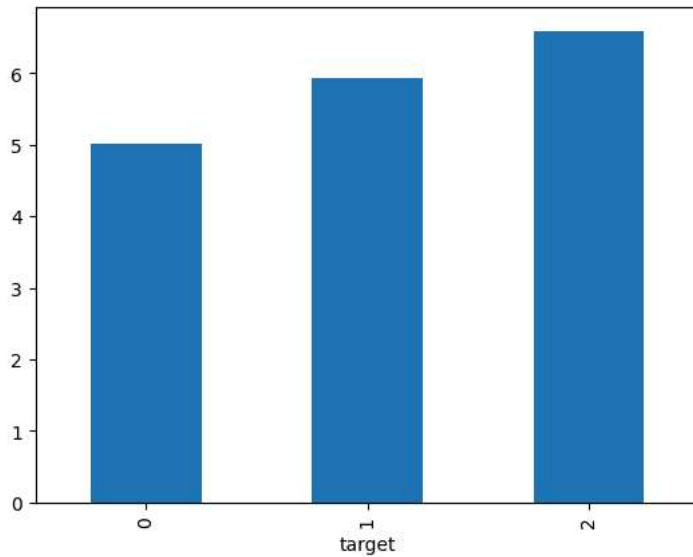
```
avg_values = df.groupby('target')['sepal length (cm)'].mean()

avg_values.plot(kind='bar')

plt.title("Average Sepal Length per Class")
plt.xlabel("Class")
plt.ylabel("Average Sepal Length")
plt.show()
```

```
-----
NameError                                Traceback (most recent call last)
/tmp/ipython-input-476343221.py in <cell line: 0>()
      3 avg_values.plot(kind='bar')
      4
----> 5 plt.title("Average Sepal Length per Class")
      6 plt.xlabel("Class")
      7 plt.ylabel("Average Sepal Length")

NameError: name 'plt' is not defined
```



```
df['sepal length (cm)'].plot(kind='hist', bins=10)

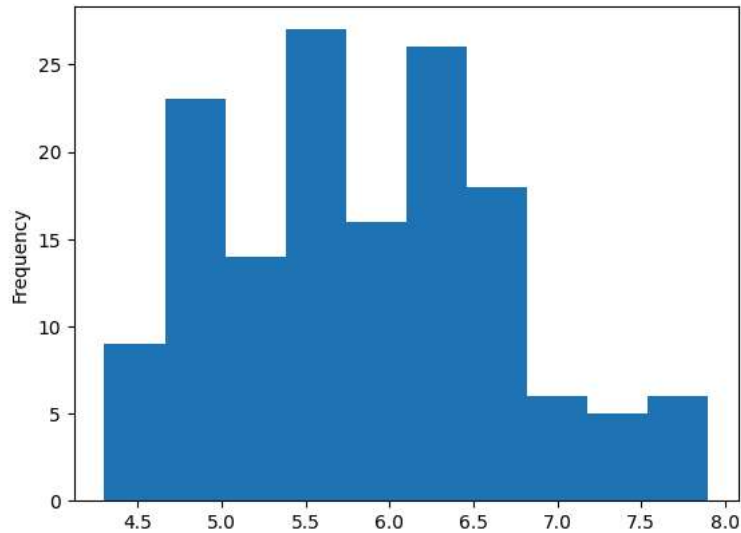
plt.title("Histogram of Sepal Length")
plt.xlabel("Sepal Length")
plt.ylabel("Frequency")
plt.show()
```

```

-----
NameError                                Traceback (most recent call last)
/tmp/ipython-input-3013750268.py in <cell line: 0>()
      1 df['sepal length (cm)'].plot(kind='hist', bins=10)
      2
----> 3 plt.title("Histogram of Sepal Length")
      4 plt.xlabel("Sepal Length")
      5 plt.ylabel("Frequency")

NameError: name 'plt' is not defined

```



```

df.hist(figsize=(8,6))
plt.show()

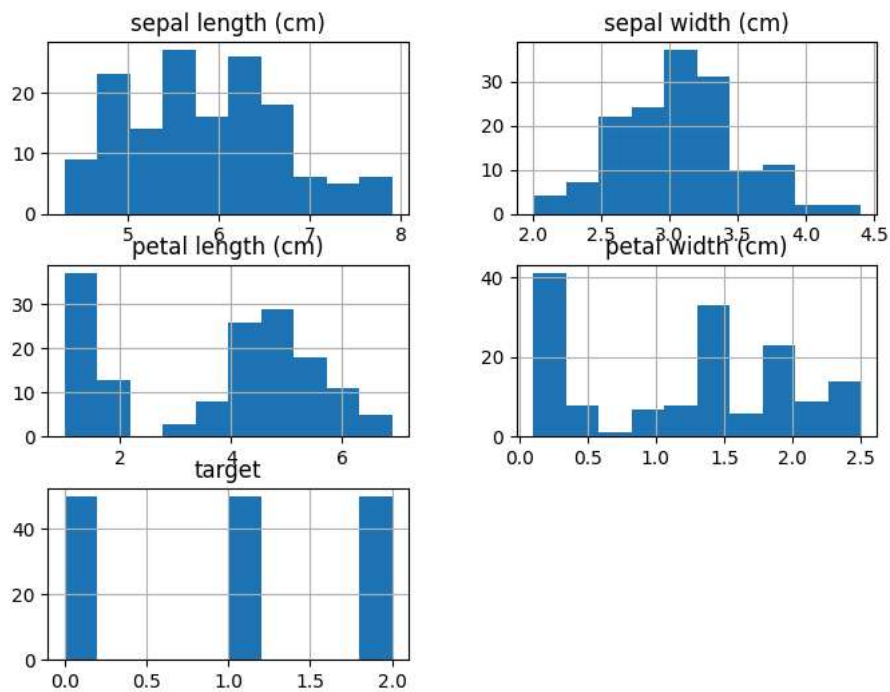
```

```

-----
NameError                                Traceback (most recent call last)
/tmp/ipython-input-2711263754.py in <cell line: 0>()
      1 df.hist(figsize=(8,6))
----> 2 plt.show()

NameError: name 'plt' is not defined

```



```

import pandas as pd
import numpy as np

```

```
d = {'First Score': [100, 90, np.nan, 95],
     'Second Score': [30, 45, 56, np.nan],
     'Third Score': [np.nan, 40, 80, 98]}
df = pd.DataFrame(d)
mv = df.isnull()
print(mv)
```

	First Score	Second Score	Third Score
0	False	False	True
1	False	False	False
2	True	False	False
3	False	True	False

```
import pandas as pd
d = pd.read_csv("/content/employees.csv")
bool_series = pd.isnull(d["Gender"])
missing_gender_data = d[bool_series]
print(missing_gender_data)
```

```
-----
FileNotFoundError                                Traceback (most recent call last)
/tmp/ipython-input-1269140581.py in <cell line: 0>()
      1 import pandas as pd
----> 2 d = pd.read_csv("/content/employees.csv")
      3 bool_series = pd.isnull(d["Gender"])
      4 missing_gender_data = d[bool_series]
      5 print(missing_gender_data)

-----
      4 frames -----
/usr/local/lib/python3.12/dist-packages/pandas/io/common.py in get_handle(path_or_buf, mode, encoding, compression, memory_map,
is_text, errors, storage_options)
      871     if ioargs.encoding and "b" not in ioargs.mode:
      872         # Encoding
--> 873         handle = open(
      874             handle,
      875             ioargs.mode,

FileNotFoundError: [Errno 2] No such file or directory: '/content/employees.csv'
```

```
import pandas as pd

d = pd.read_csv("/content/employees.csv")
missing_gender_data = d[d["Gender"].isnull()]

print(missing_gender_data)
```

```
-----
FileNotFoundError                                Traceback (most recent call last)
/tmp/ipython-input-1455461440.py in <cell line: 0>()
      1 import pandas as pd
      2
----> 3 d = pd.read_csv("/content/employees.csv")
      4 missing_gender_data = d[d["Gender"].isnull()]
      5

-----
      4 frames -----
/usr/local/lib/python3.12/dist-packages/pandas/io/common.py in get_handle(path_or_buf, mode, encoding, compression, memory_map,
is_text, errors, storage_options)
      871     if ioargs.encoding and "b" not in ioargs.mode:
      872         # Encoding
--> 873         handle = open(
      874             handle,
      875             ioargs.mode,

FileNotFoundError: [Errno 2] No such file or directory: '/content/employees.csv'
```

```
import pandas as pd

data = {
    "Name": ["A", "B", "C"],
    "Gender": ["M", None, "F"]
}

d = pd.DataFrame(data)
print(d[d["Gender"].isnull()])
```

	Name	Gender
1	B	None

```
import pandas as pd

# Read CSV file
d = pd.read_csv("/content/employees.csv")

# Select rows with missing Gender values
missing_gender_data = d[d["Gender"].isnull()]

# Print result
print(missing_gender_data)
```

```
-----
FileNotFoundError                                Traceback (most recent call last)
/tmp/ipython-input-801858483.py in <cell line: 0>()
      2
      3 # Read CSV file
----> 4 d = pd.read_csv("/content/employees.csv")
      5
      6 # Select rows with missing Gender values

----- 4 frames -----
/usr/local/lib/python3.12/dist-packages/pandas/io/common.py in get_handle(path_or_buf, mode, encoding, compression, memory_map,
is_text, errors, storage_options)
      871     if ioargs.encoding and "b" not in ioargs.mode:
      872         # Encoding
--> 873         handle = open(
      874             handle,
      875             ioargs.mode,

FileNotFoundError: [Errno 2] No such file or directory: '/content/employees.csv'
```

```
import pandas as pd
import numpy as np
d = {'First Score': [100, 90, np.nan, 95],
     'Second Score': [30, 45, 56, np.nan],
     'Third Score': [np.nan, 40, 80, 98]}
df = pd.DataFrame(d)
nmv = df.notnull()
print(nmv)
```

	First Score	Second Score	Third Score
0	True	True	False
1	True	True	True
2	False	True	True
3	True	False	True

```
import pandas as pd
d = pd.read_csv("/content/employees.csv")
nmg = pd.notnull(d["Gender"])
nmgd= d[nmg]
display(nmgd)
```

```
-----
FileNotFoundError                                Traceback (most recent call last)
/tmp/ipython-input-4069695.py in <cell line: 0>()
      1 import pandas as pd
----> 2 d = pd.read_csv("/content/employees.csv")
      3 nmg = pd.notnull(d["Gender"])
      4 nmgd= d[nmg]
      5 display(nmgd)

----- 4 frames -----
/usr/local/lib/python3.12/dist-packages/pandas/io/common.py in get_handle(path_or_buf, mode, encoding, compression, memory_map,
is_text, errors, storage_options)
      871     if ioargs.encoding and "b" not in ioargs.mode:
      872         # Encoding
--> 873         handle = open(
      874             handle,
      875             ioargs.mode,

FileNotFoundError: [Errno 2] No such file or directory: '/content/employees.csv'
```

```
import pandas as pd
import numpy as np
d = {'First Score': [100, 90, np.nan, 95],
     'Second Score': [30, 45, 56, np.nan],
     'Third Score': [np.nan, 40, 80, 98]}
```

```
df = pd.DataFrame(d)
df.fillna(0)
```

	First Score	Second Score	Third Score
0	100.0	30.0	0.0
1	90.0	45.0	40.0
2	0.0	56.0	80.0
3	95.0	0.0	98.0

```
import pandas as pd
import numpy as np
data = pd.read_csv("/content/employees.csv")
data[10:25]
```

```
-----
FileNotFoundError                                Traceback (most recent call last)
/tmp/ipython-input-2286808386.py in <cell line: 0>()
      1 import pandas as pd
      2 import numpy as np
----> 3 data = pd.read_csv("/content/employees.csv")
      4 data[10:25]

-----
      4 frames -----
/usr/local/lib/python3.12/dist-packages/pandas/io/common.py in get_handle(path_or_buf, mode, encoding, compression, memory_map,
is_text, errors, storage_options)
      871     if ioargs.encoding and "b" not in ioargs.mode:
      872         # Encoding
--> 873         handle = open(
      874             handle,
      875             ioargs.mode,

FileNotFoundError: [Errno 2] No such file or directory: '/content/employees.csv'
```

```
import pandas as pd

df = pd.DataFrame({"A": [12, 4, 5, None, 1],
                   "B": [None, 2, 54, 3, None],
                   "C": [20, 16, None, 3, 8],
                   "D": [14, 3, None, None, 6]})

print(df)
```

	A	B	C	D
0	12.0	NaN	20.0	14.0
1	4.0	2.0	16.0	3.0
2	5.0	54.0	NaN	NaN
3	NaN	3.0	3.0	NaN
4	1.0	NaN	8.0	6.0

```
import pandas as pd
import numpy as np
dict = {'First Score': [100, 90, np.nan, 95],
        'Second Score': [30, np.nan, 45, 56],
        'Third Score': [52, 40, 80, 98],
        'Fourth Score': [np.nan, np.nan, np.nan, 65]}
df = pd.DataFrame(dict)
df.dropna()
```

	First Score	Second Score	Third Score	Fourth Score
3	95.0	56.0	98	65.0

```
dict = {'First Score': [100, np.nan, np.nan, 95],
        'Second Score': [30, np.nan, 45, 56],
        'Third Score': [52, np.nan, 80, 98],
        'Fourth Score': [np.nan, np.nan, np.nan, 65]}
df = pd.DataFrame(dict)

df.dropna(how='all')
```

	First Score	Second Score	Third Score	Fourth Score
0	100.0	30.0	52.0	NaN
2	NaN	45.0	80.0	NaN
3	95.0	56.0	98.0	65.0

```
dict = {'First Score': [100, np.nan, np.nan, 95],
        'Second Score': [30, np.nan, 45, 56],
        'Third Score': [52, np.nan, 80, 98],
        'Fourth Score': [60, 67, 68, 65]}
df = pd.DataFrame(dict)

df.dropna(axis=1)
```

	Fourth Score
0	60
1	67
2	68
3	65

```
import pandas as pd
d = pd.read_csv("/content/employees.csv")
nd = d.dropna(axis=0, how='any')
print("Old data frame length:", len(d))
print("New data frame length:", len(nd))
print("Rows with at least one missing value:", (len(d) - len(nd)))
```

```
-----
FileNotFoundError                                Traceback (most recent call last)
/tmp/ipython-input-1114800991.py in <cell line: 0>()
      1 import pandas as pd
----> 2 d = pd.read_csv("/content/employees.csv")
      3 nd = d.dropna(axis=0, how='any')
      4 print("Old data frame length:", len(d))
      5 print("New data frame length:", len(nd))
```

```
----- 4 frames -----
/usr/local/lib/python3.12/dist-packages/pandas/io/common.py in get_handle(path_or_buf, mode, encoding, compression, memory_map,
is_text, errors, storage_options)
    871         if ioargs.encoding and "b" not in ioargs.mode:
    872             # Encoding
    ---
    873             # Encoding
```