```
In [27]:   # loading the library
           import pandas as pd
```

Example 1

```
In [30]:   # loading the dataset
           season_df = pd.read_csv("season.csv")
```

```
In [32]:   # Checking the first 5 records
           season_df.head()
```

Out[32]:

	day	temp	wind-speed
0	2	45.0	12.0
1	3	46.0	34.0
2	4	47.0	45.0
3	5	NaN	56.0
4	6	49.0	NaN

Detecting the missing values

```
In [35]:   # Checking the null values using isnull() function

           season_df.isnull().sum()
```

```
Out[35]:   day           0
           temp          4
           wind-speed    4
           dtype: int64
```

```
In [37]:   # Checking the null values using isna() function

           season_df.isna().sum()
```

```
Out[37]:   day           0
           temp          4
           wind-speed    4
           dtype: int64
```

Total number of rows containing the missing value

```
In [40]:   season_df.isnull().sum().sum()
```

```
Out[40]:   8
```

Example 2

```
In [43]:   import pandas as pd
           import seaborn as sns

           # Load the titanic dataset from seaborn
           df = sns.load_dataset('titanic')

           # Check for missing values using the isnull() function
           missing_values = df.isnull().sum()

           print("Number of missing values for each column:")
```

```
print(missing_values)

# Check the percentage of missing values for each column
missing_percentage = (df.isnull().sum() / len(df)) * 100
print("\nPercentage of missing values for each column:")
print(missing_percentage)

# Visualize the missing values using a heatmap
import matplotlib.pyplot as plt
plt.figure(figsize=(12, 7))
sns.heatmap(df.isnull(), yticklabels=False, cbar=False, cmap='viridis')
plt.title("Visualization of Missing Values")
plt.show()
```

```
Number of missing values for each column:
survived          0
pclass            0
sex               0
age             177
sibsp             0
parch             0
fare              0
embarked          2
class             0
who               0
adult_male        0
deck            688
embark_town       2
alive             0
alone             0
dtype: int64

Percentage of missing values for each column:
survived         0.000000
pclass           0.000000
sex              0.000000
age             19.865320
sibsp            0.000000
parch            0.000000
fare             0.000000
embarked         0.224467
class            0.000000
who              0.000000
adult_male       0.000000
deck            77.216611
embark_town      0.224467
alive            0.000000
alone            0.000000
dtype: float64
```
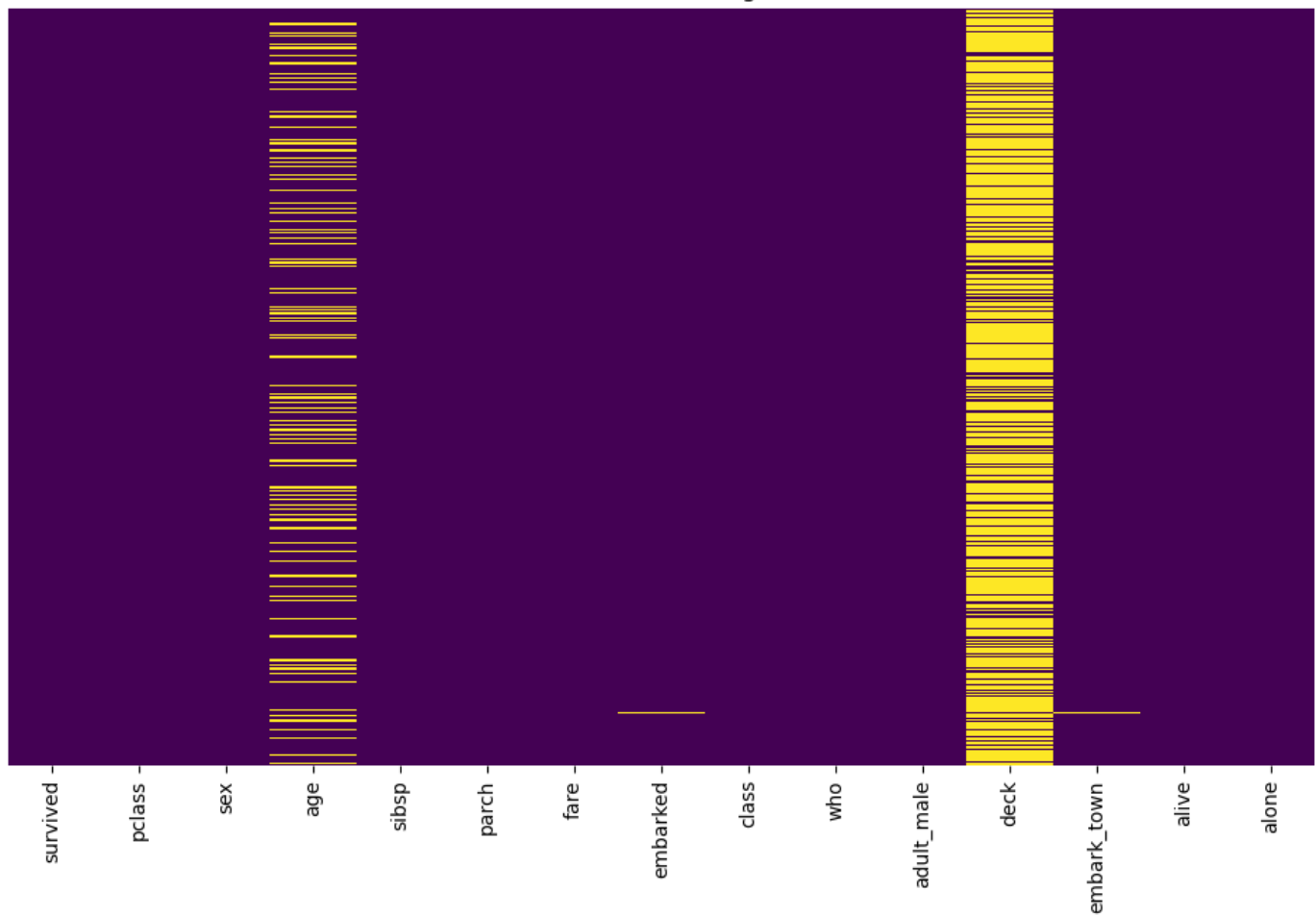
Visualization of Missing Values

```
In [ ]: !jupyter nbconvert --to webpdf --allow-chromium-download Week2_Lab1.ipynb
```