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In [ ]: #BANK MARKETING: Predicting Whether The Customer Will Subscribe To Term Deposit (FIXED
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In [ ]: #Importing the libraries
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
import warnings
warnings.filterwarnings("ignore")
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In [ ]: #Loading the data
train = pd.read_csv("train.csv")
test = pd.read_csv("test.csv")
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In [ ]: train.columns
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In [ ]: train.info()
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In [ ]: #Graphical Representation of Numerical Features
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In [ ]: import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
import warnings

warnings.filterwarnings('ignore')
fig, ax = plt.subplots()
fig.set_size_inches(20, 8)
sns.countplot(x = 'age', data = df[cols_num])
ax.set_xlabel('Age', fontsize=15)
ax.set_ylabel('Count', fontsize=15)
ax.set_title('Age Count Distribution', fontsize=15)
sns.despine()
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In [ ]: fig, (ax1, ax2) = plt.subplots(nrows = 1, ncols = 2, figsize = (13, 5))
sns.boxplot(x = 'age', data = df[cols_num], orient = 'v', ax = ax1)
ax1.set_xlabel('People Age', fontsize=15)
ax1.set_ylabel('Age', fontsize=15)
ax1.set_title('Age Distribution', fontsize=15)
ax1.tick_params(labelsize=15)

sns.distplot(df[cols_num]['age'], ax = ax2)
sns.despine(ax = ax2)
ax2.set_xlabel('Age', fontsize=15)
ax2.set_ylabel('Occurence', fontsize=15)
ax2.set_title('Age x Occurence', fontsize=15)
ax2.tick_params(labelsize=15)

plt.subplots_adjust(wspace=0.5)
plt.tight_layout()
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In [ ]: fig, ax = plt.subplots()
fig.set_size_inches(25, 8)
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sns.countplot(x = 'previous', data = df[cols_num])
ax.set_xlabel('Previous', fontsize=16)
ax.set_ylabel('Number', fontsize=16)
ax.set_title('Previous', fontsize=16)
ax.tick_params(labelsize=16)
sns.despine()
```

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In [ ]: fig, ax = plt.subplots()
fig.set_size_inches(25, 8)
sns.countplot(x = 'emp.var.rate', data = df[cols_num])
ax.set_xlabel('Emp.var.rate', fontsize=16)
ax.set_ylabel('Number', fontsize=16)
ax.set_title('Emp.var.rate', fontsize=16)
ax.tick_params(labelsize=16)
sns.despine()
```

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In [ ]: fig, ax = plt.subplots()
fig.set_size_inches(25, 8)
sns.countplot(x = 'cons.conf.idx', data = df[cols_num])
ax.set_xlabel('Cons.conf.idx', fontsize=16)
ax.set_ylabel('Number', fontsize=16)
ax.set_title('Cons.conf.idx', fontsize=16)
ax.tick_params(labelsize=16)
sns.despine()
```

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In [ ]: df[cols_num].isnull().sum()
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