DATA SCIENCE PROJECT-HOPE AI INTERN

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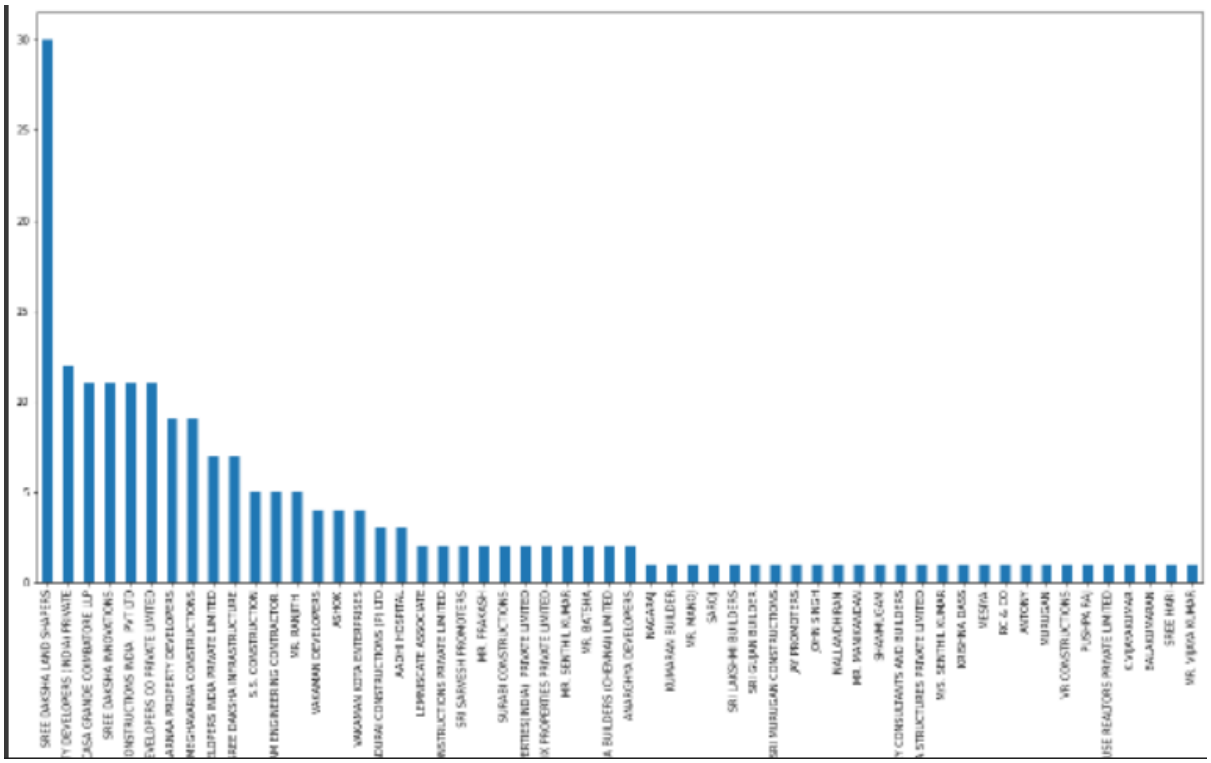
TASKS

Create a graph which displays Customer order count. [Ex. customerA-12, customer-5]. Display this information in a graph. Hint: use value_counts().

CODE:

```
df['Customer Name'].value_counts().plot(kind='bar',figsize=(20,10))
```

OUTPUT:



DESCRIPTION:

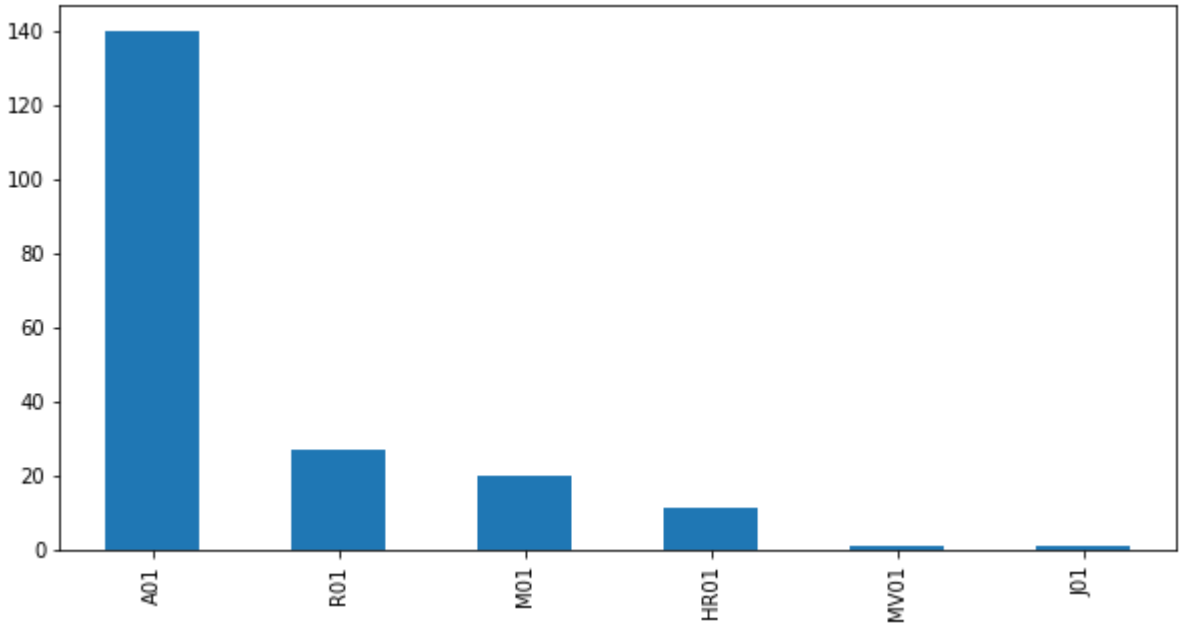
From the given data in csv file the customer's name is taken and using the built-in function the count is extracted and the graph is plotted.

Create a graph which displays Marketing Staff sales count. [Ex. A01=5, M12=15]. Display this information in a graph. Hint: use value counts ().

CODE:

```
df['Marketing Staff'].value_counts().plot(kind='bar',figsize=(10,5))
```

OUTPUT:



DESCRIPTION:

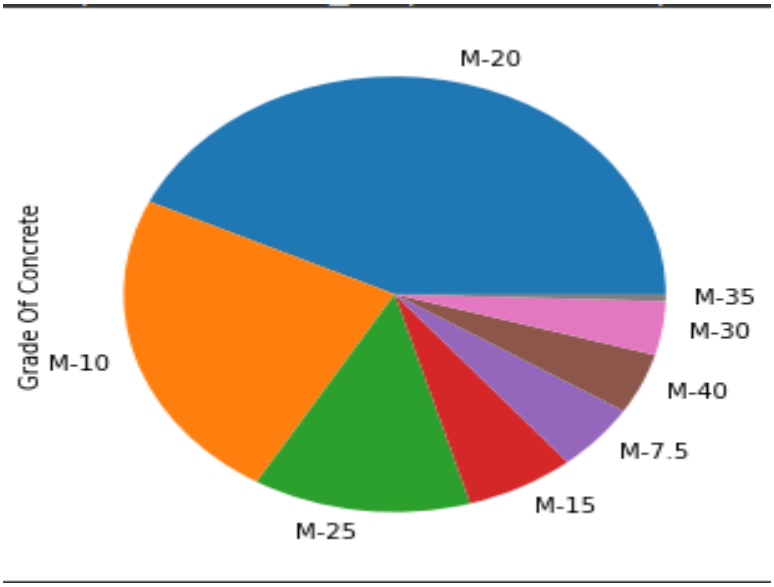
From the given data in csv file the marketing staff details are taken and using the built-in function the count of elements is extracted and the graph is plotted.

Display the graph which displays Gradewise sales count [Ex:M10=90]. Display this information in a graph. Hint: use value_counts ()

CODE:

```
df['Grade Of Concrete'].value_counts().plot(kind='pie',figsize=(10,5))
```

OUTPUT:



DESCRIPTION:

From the given data in csv file the grade of concrete details is taken and using the built-in function the count of elements is extracted and the graph is generated.

Display the graph which shows the total quantity of each grades. [Ex.M10=30].

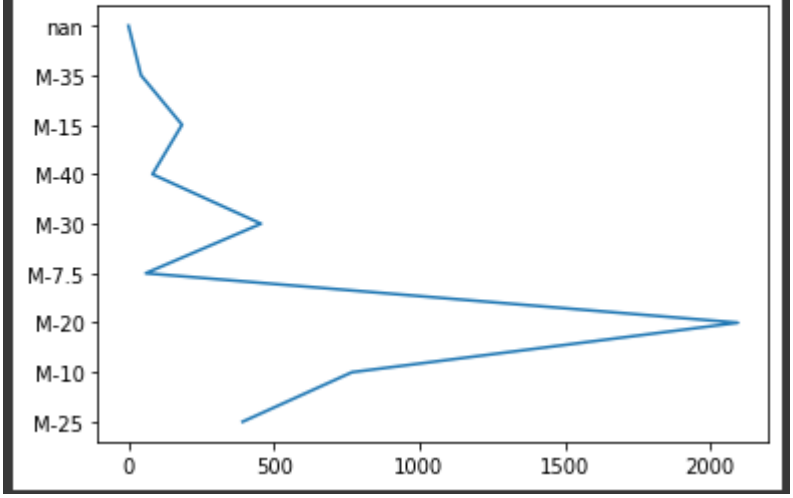
CODE:

```
qty=[]
for j in range(len(d)):
  a=0
  for i in range(len(df)):
    if(d[j]==df['Grade Of Concrete'][i]):
      a+=df['QTY'][i]
  qty.append(a)
print(*qty)
```

OUTPUT:

```
plt.plot(qty,d)
```

```
[<matplotlib.lines.Line2D at 0x7f3ecd087ed0>]
```



DESCRIPTION:

From the given data in csv file the grade of concrete details and also the quantity details are taken. The quantity is extracted and then with these elements the graph is plotted.

Perform Descriptive Analysis

CODE AND OUTPUT:

MEAN:

meanqty=df['QTY']. mean()

meanqty

MEAN

```
[24] meanqty=df['QTY'].mean()
     meanqty
```

```
20.405
```

MEDIAN:

medianqty=df['QTY'].median()

medianqty

MEDIAN

```
medianqty=df['QTY'].median()
medianqty
```

```
8.0
```

MODE:

modeqty=df['QTY'].mode()

modeqty

MODE

```
modeqty=df['QTY'].mode()
modeqty
```

```
0    4.0
dtype: float64
```

```
df[['Customer Name','Marketing Staff','QTY','Grade Of Concrete','PRICE PER CUM']].describe(include='all')
```

	Customer Name	Marketing Staff	QTY	Grade Of Concrete	PRICE PER CUM
count	200	200	200.000000	200	201.000000
unique	56	6	NaN	8	NaN
top	SREE DAKSHA LAND SHAPERS	A01	NaN	M-20	NaN
freq	30	140	NaN	86	NaN
mean	NaN	NaN	20.405000	NaN	3895.800995
std	NaN	NaN	32.283854	NaN	824.907068
min	NaN	NaN	1.500000	NaN	33.000000
25%	NaN	NaN	5.000000	NaN	3250.000000
50%	NaN	NaN	8.000000	NaN	4100.000000
75%	NaN	NaN	18.625000	NaN	4300.000000
max	NaN	NaN	227.000000	NaN	5705.000000

DESCRIPTION:

The descriptive analysis includes mean, median and mode.

All these three analyses are done using the respective built-in functions and the output is extracted successfully.

PROJECT LINK: https://github.com/Kirubasini/HOPE-AI-INTERN