Assignment NO.4

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```
import pandas as pd

# Read the CSV file into a DataFrame df =
pd.read_csv('/content/grainsales.csv')

# Display the DataFrame print(df)
```

OUTPUT:

```
      GrainName        State       City Months  Year    Sales
0         Ragi  Maharashtra     Nagpur    JAN  2023  1000000
1         Bajra       Panjab   Amritsar    FEB  2023  1500000
2         Ragi  Maharashtra     Nagpur    JAN  2023  1000000
3         Bajra       Panjab   Amritsar    FEB  2023  1500000
4         Ragi  Maharashtra     Nagpur    JAN  2023  1000000
5         Bajra       Panjab   Amritsar    FEB  2023  1500000
6         Oats     Hariyana   Gurugram  MARCH  2023  2000000
7         Sattu       Gujarat      Surat  APRIL  2023  2500000
8         Sooji   Tamil Nadu    Madurai    MAY  2023  3000000
9         Brown rice     Telangana  Hyderabad   JUNE  2023  3500000
10        Wheat  West Bengol   Asansole   JULY  2023  4000000
11        Corn           UP     Kanpur    AUG  2023  4500000
12        Ragi  Maharashtra     Nagpur    JAN  2023  1000000
13        Bajra       Panjab   Amritsar    FEB  2023  1500000
14        Oats     Hariyana   Gurugram  MARCH  2023  2000000
15        Sattu       Gujarat      Surat  APRIL  2023  2500000
16        Sooji   Tamil Nadu    Madurai    MAY  2023  3000000
17        Brown rice     Telangana  Hyderabad   JUNE  2023  3500000
18        Wheat  West Bengol   Asansole   JULY  2023  4000000
19        Corn           UP     Kanpur    AUG  2023  4500000
20        Sooji   Tamil Nadu    Madurai    MAY  2023  3000000
21        Brown rice     Telangana  Hyderabad   JUNE  2023  3500000
22        Wheat  West Bengol   Asansole   JULY  2023  4000000
23        Corn           UP     Kanpur    AUG  2023  4500000
24        Ragi  Maharashtra     Nagpur    JAN  2023  1000000
25        Brown rice     Telangana  Hyderabad   JUNE  2023  3500000
```

```
# Identify 10 grains from the dataset grains =
df['GrainName'].unique()[:10] print(grains)
```

OUTPUT:

```
['Ragi' 'Bajra' 'Oats' 'Sattu ' 'Sooji' 'Brown rice ' 'Wheat' 'Corn']
```

```
# Group data by month and calculate total sales
```

```
monthly_sales = df.groupby('Months')['Sales'].sum()

# The month with the highest sales best_month
= monthly_sales.idxmax()

# Get the earnings for the best month earnings
= monthly_sales.loc[best_month]
 print("Best month for sales:", best_month)
print("Earnings for the best month:", earnings)
```

OUTPUT:

```
Best month for sales: JULY
Earnings for the best month:
16000000
```

```
# Group data by product and calculate
total sales product_sales =
df.groupby('GrainName')['Sales'].sum()

# The product with the
highest sales
best_product =
product_sales.idxmax()
 print("Product that
sold the most:",
best_product)
```

OUTPUT:

```
Product that sold the most: Wheat
```