Assignment NO.4

Name: Ganesh Atre

Rollno:406[D1]

PRN:202201040068

```python
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
```

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

OUTPUT:

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

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

```python
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
```

```python
# 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
```