

6. Perform following operations using pandas

• Creating dataframe

PROGRAM:

```
import pandas as pd

# Define data

data = {
    'Name': ['Alice', 'Bob', 'Charlie'],
    'Age': [25, 30, 35],
    'City': ['New York', 'Los Angeles', 'Chicago']
}

# Create DataFrame

df = pd.DataFrame(data)

print(df)
```

OUTPUT:

Name	Age	City
Alice	25	New York
Bob	30	Los Angeles
Charlie	35	Chicago

• concat()

PROGRAM:

```
# Create another DataFrame

df2 = pd.DataFrame({
    'Name': ['David', 'Eve'],
    'Age': [40, 45],
    'City': ['Houston', 'Seattle']
})

# Concatenate DataFrames

df_concat = pd.concat([df, df2])

print(df_concat)
```

OUTPUT:

Name	Age	City
Alice	25	New York
Bob	30	Los Angeles
Charlie	35	Chicago
David	40	Houston
Eve	45	Seattle

• Setting conditions

PROGRAM:

```
# Filter rows where Age > 30
df_filtered = df[df['Age'] > 30]
print(df_filtered)
```

OUTPUT:

Name	Age	City
Charlie	35	Chicago

• Adding a new column

PROGRAM:

```
# Add a new column 'Country'
df['Country'] = 'USA'
print(df)
```

OUTPUT:

Name	Age	City	Country
Alice	25	New York	USA
Bob	30	Los Angeles	USA
Charlie	35	Chicago	USA