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# Pandas HandsOn
# https://codeshare.io/0bp9Nm
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```

```
import pandas as pd
```

```
data = {
    "Employee_ID": [101, 102, 103, 104, 105, 106],
    "Name": ["Rajesh", "Meena", "Suresh", "Anita", "Vijay", "Neeta"],
    "Department": ["HR", "IT", "Finance", "IT", "Finance", "HR"],
    "Age": [29, 35, 45, 32, 50, 28],
    "Salary": [70000, 85000, 95000, 64000, 120000, 72000],
    "City": ["Delhi", "Mumbai", "Bangalore", "Chennai", "Delhi", "Mumbai"]
}
```

```
df = pd.DataFrame(data)
```

*Exercise 1: Rename Columns*

*Rename the "Salary" column to "Annual Salary" and "City" to "Location".  
Print the updated DataFrame.*

```
df_renamed = df.rename(columns={"Salary": "Annual Salary", "City": "Location"})
print(df_renamed)
```

*Exercise 2: Drop Columns*

*Drop the "Location" column from the DataFrame.  
Print the DataFrame after dropping the column.*

```
df_dropcol = df_renamed.drop(columns=["Location"])
print(df_dropcol)
```

*Exercise 3: Drop Rows*

*Drop the row where "Name" is "Suresh".  
Print the updated DataFrame.*

```
df_droprow = df_dropcol.drop(df[df["Name"] == "Suresh"].index)
print(df_droprow)
```

#### *Exercise 4: Handle Missing Data*

*Assign None to the "Salary" of "Meena".*

*Fill the missing "Salary" value with the mean salary of the existing employees.  
Print the cleaned DataFrame.*

```
df.loc[df["Name"] == "Meena", "Salary"] = None
mean_salary = df["Salary"].mean()
df.update(df["Salary"].fillna(mean_salary))
print(df)
```

#### *Exercise 5: Create Conditional Columns*

*Create a new column "Seniority" that assigns "Senior" to employees aged 40 or above and "Junior" to employees younger than 40.*

*Print the updated DataFrame.*

```
df["Seniority"] = df["Age"].apply(lambda x: "Senior" if x >= 40 else "Junior")
print(df)
```

#### *Exercise 6: Grouping and Aggregation*

*Group the DataFrame by "Department" and calculate the average salary in each department.*

*Print the grouped DataFrame.*

```
grouped_df = df.groupby("Department")["Salary"].mean()
print(grouped_df)
```