Interactive Activity_NOT_UPLOADED

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Questions:

How do you read a CSV file into a pandas DataFrame?

How do you select the column 'Age' from a DataFrame named `df`?

How can you filter rows in `df` where the column 'Age' is greater than 30?

What is the command to get a summary of statistics (like count, mean, std) for numeric columns in `df`?

How do you create a new column 'Senior' in `df` where the value is `True` if 'Age' is above 65 and `False` otherwise?

What is the pandas function to drop all rows with any missing values in `df`?

How do you sort `df` by the column 'Age' in descending order?

How can you rename the column 'Sex' to 'Gender' in `df`?

What line of code is used to save `df` to an Excel file named 'output.xlsx'?

How do you set the index of `df` to the column 'ID'?

What is the command to fill all NaN values in the column 'Salary' with 0 in `df`?

How do you calculate the mean of the 'Age' column in `df`?

What code is used to group `df` by 'Department' and calculate the sum of 'Salary' for each department?

How do you add a row to `df` with ID 101, Age 34, and Gender 'Male'?

What is the pandas command to drop the column 'Gender' from `df`?

How can you select rows in `df` where 'Age' is between 25 and 50 inclusive?

What line of code is used to convert the data type of the 'Age' column to float in `df`?

How do you find the number of unique values in the 'Department' column of `df`?

What command merges `df1` and `df2` on the column 'Employee_ID'?

How do you select the last 5 rows of `df`?

Answers:

1. **How do you read a CSV file into a pandas DataFrame?**

```
df = pd.read_csv('filename.csv')
```

1. **How do you select the column 'Age' from a DataFrame named `df`?**

```
age = df['Age']
```

1. **How can you filter rows in `df` where the column 'Age' is greater than 30?**

```
filtered_df = df[df['Age'] > 30]
```

1. **What is the command to get a summary of statistics (like count, mean, std) for numeric columns in `df`?**

```
summary = df.describe()
```

1. **How do you create a new column 'Senior' in `df` where the value is `True` if 'Age' is above 65 and `False` otherwise?**

```
df['Senior'] = df['Age'] > 65
```

1. **What is the pandas function to drop all rows with any missing values in `df`?**

```
clean_df = df.dropna()
```

1. **How do you sort `df` by the column 'Age' in descending order?**

```
sorted_df = df.sort_values(by='Age', ascending=False)
```

1. **How can you rename the column 'Sex' to 'Gender' in `df`?**

```
df = df.rename(columns={'Sex': 'Gender'})
```

1. **What line of code is used to save `df` to an Excel file named 'output.xlsx'?**

```
df.to_excel('output.xlsx')
```

1. **How do you set the index of `df` to the column 'ID'?**

```
df = df.set_index('ID')
```

1. **What is the command to fill all NaN values in the column 'Salary' with 0 in `df`?**

```
df['Salary'] = df['Salary'].fillna(0)
```

1. **How do you calculate the mean of the 'Age' column in `df`?**

```
mean_age = df['Age'].mean()
```

1. **What code is used to group `df` by 'Department' and calculate the sum of 'Salary' for each department?**

```
department_salary_sum = df.groupby('Department')['Salary'].sum
()
```

1. **How do you add a row to `df` with ID 101, Age 34, and Gender 'Male'?**

```
df.loc[101] = [34, 'Male']
```

1. **What is the pandas command to drop the column 'Gender' from `df`?**

```
df = df.drop(columns=['Gender'])
```

1. **How can you select rows in `df` where 'Age' is between 25 and 50 inclusive?**

```
subset_df = df[(df['Age'] >= 25) & (df['Age'] <= 50)]
```

1. **What line of code is used to convert the data type of the 'Age' column to float in `df`?**

```
df['Age'] = df['Age'].astype(float)
```

1. **How do you find the number of unique values in the 'Department' column of `df`?**

```
unique_departments = df['Department'].nunique()
```

1. **What command merges `df1` and `df2` on the column 'Employee_ID'?**

```
merged_df = pd.merge(df1, df2, on='Employee_ID')
```

1. **How do you select the last 5 rows of `df`?**
2. `python last_five_rows = df.tail(5)`