

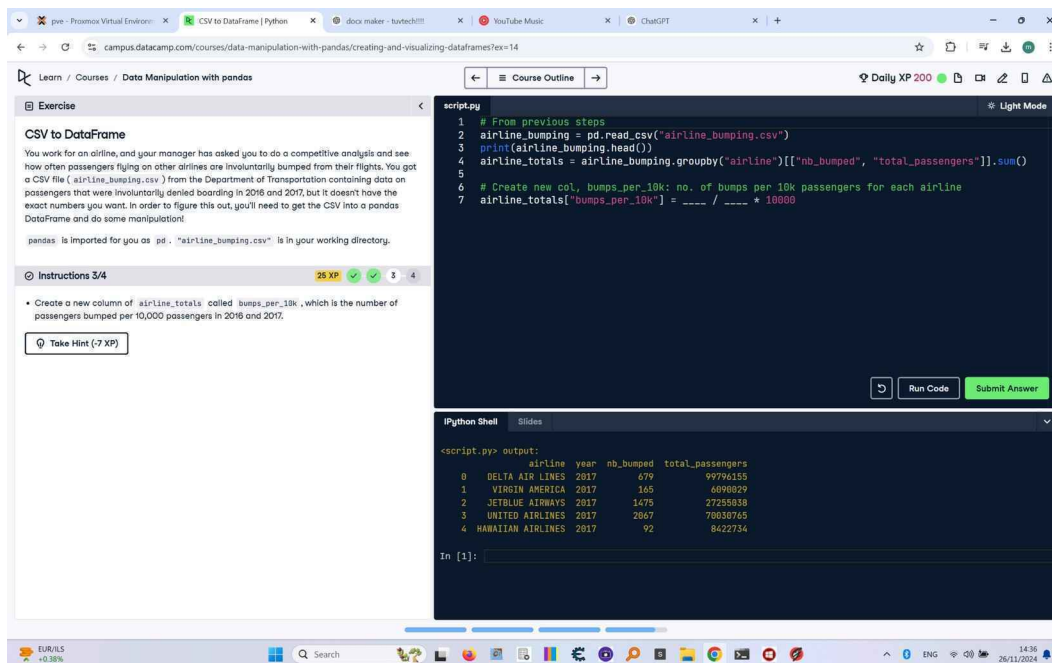
CSV to DataFrame (Add Bumps per 10k Passengers)

In this step, you'll calculate the number of passengers bumped per 10,000 passengers for each airline. This will provide a standardized metric for comparison between airlines.

Instructions:

1. Create a new column in `airline_totals` called `bumps_per_10k`.
2. Calculate the number of passengers bumped per 10,000 passengers for each airline.

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Python Code Implementation:

```
# From previous steps
```

```
airline_bumping = pd.read_csv("airline_bumping.csv")
print(airline_bumping.head())
```

```
# Group by airline and calculate totals
```

```
airline_totals = airline_bumping.groupby("airline")[["nb_bumped",
"total_passengers"]].sum()
```

```
# Create new column, bumps_per_10k: no. of bumps per 10k passengers for
each airline
```

```
airline_totals["bumps_per_10k"] = airline_totals["nb_bumped"] /  
airline_totals["total_passengers"] * 10000
```

```
# Print the updated DataFrame  
print(airline_totals)
```

Explanation of Code:

1. **Group by airline and calculate totals**: Use `groupby("airline")` and `sum()` to aggregate the total `nb_bumped` and `total_passengers` for each airline.
2. **Create a new column**: Add a column `bumps_per_10k` to the `airline_totals` DataFrame. The formula calculates the number of passengers bumped per 10,000 passengers by dividing `nb_bumped` by `total_passengers` and multiplying by 10,000.
3. **Print the updated DataFrame**: Use `print()` to display the updated DataFrame with the new column.