

4 Week 4: Box Score Analysis & Data Export

This code analyzes a box score, finds statistical leaders, calculates efficiency, and exports the result.

Week 4 Assignment – Statistical Box Score Analysis

```
import pandas as pd
```

```
# --- 1 Create Data ---
```

```
data = {  
    "Player": ["Player A", "Player B", "Player C", "Player D", "Player E"],  
    "PTS": [20, 15, 12, 25, 10],  
    "REB": [8, 7, 5, 6, 9],  
    "AST": [5, 6, 4, 7, 3],  
    "STL": [2, 1, 0, 2, 3],  
    "BLK": [1, 2, 1, 0, 2]  
}  
df = pd.DataFrame(data)
```

```
# --- 2 Team Averages ---
```


```
print("--- Team Average Stats ---")  
print(df.mean(numeric_only=True))
```

```
# --- 3 Identify Leaders ---
```

```
print("\n--- Statistical Leaders ---")
```

```
# Use idxmax() to find the index of the maximum value, then use .loc[] to retrieve the player  
name
```

```
print("Top Scorer:", df.loc[df["PTS"].idxmax(), "Player"])
print("Best Rebounder:", df.loc[df["REB"].idxmax(), "Player"])
print("Top Assister:", df.loc[df["AST"].idxmax(), "Player"])
```

```
# ---  Add Efficiency and Sort ---
```

```
# Simple EFF formula: PTS + REB + AST + STL + BLK
```

```
df["EFF"] = df["PTS"] + df["REB"] + df["AST"] + df["STL"] + df["BLK"]
```


```
df_sorted = df.sort_values(by="EFF", ascending=False)
```

```
print("\n--- Sorted Player Efficiency ---")
```

```
print(df_sorted)
```

```
# ---  Export Results ---
```

```
df_sorted.to_csv("team_performance.csv", index=False)
```

```
print("\n Saved team_performance.csv")
```