EDS practical No3

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```
import numpy as np

# Define the dataset as a NumPy array
data = np.array([
    [1, 'Portugal', 200000000, 'Ronaldo', 33, 'fifa',
22],
    [2, 'Argentina', 300000000, 'Messi', 3, 'fifa',
33],
    [3, 'Brazil', 400000000, 'Ronaldhino', 23, 'aefa',
44],
    [4, 'Brazil', 500000000, 'Kaka', 32, 'uefa', 55],
    [5, 'Coratia', 600000000, 'Modric', 4, 'cefa', 66]
])

# Extract the columns from the NumPy array
pln = data[:, 0].astype(int)
tn = data[:, 1]
sal = data[:, 2].astype(float)
pn = data[:, 3]
gs = data[:, 4].astype(int)
ln = data[:, 5]
mp = data[:, 6].astype(int)

# Print the converted data
print("Player number:", pln)
print("Team name:", tn)
print("Player salaries:", sal)
print("Player name:", pn)
print("Goals score:", gs)
print("League name:", ln)
print("Matches played:", mp)

# 1. Maximum Salary
max_salary = np.max(sal)
print("1. Maximum salary:", max_salary)
```

```
# 2. Player who scored the most goals
max_goals = np.max(gs)
max_goals_player = pn[gs.argmax()]
print("2. Player who scored the most goals:",
max_goals_player)

# 3. Player whose salary is Minimum
min_salary_player = pn[sal.argmin()]
print("3. Player whose minimum salary:",
min_salary_player)

# 4. Minimum Salary
min_salary = np.min(sal)
print("4. Minimum salary:", min_salary)

# 5. Player whose salary is Maximum
max_salary_player = pn[sal.argmax()]
print("5. Player whose maximum salary:",
max_salary_player)

# 6. Player who scored the least goals
min_goals = np.min(gs)
min_goals_player = pn[gs.argmin()]
print("6. Player who scored the least goals:",
min_goals_player)

# 7. Average Salary
avg_salary = np.mean(sal)
print("7. Average salary:", avg_salary)

# 8. League which has the most number of matches
max_matches_league = ln[mp.argmax()]
print("8. League with the most played matches:",
max_matches_league)

# 9. League which has the least number of matches
min_matches_league = ln[mp.argmin()]
print("9. League with the least played matches:",
min_matches_league)
```

```
# 10. Maximum goals in a league
max_goals_league = ln[gs.argmax()]
print("10. League with the maximum goals:",
max_goals_league)
```

OUTPUT:

```
Player number: [1 2 3 4 5]
Team name: ['Portugal' 'Argentina' 'Brazil' 'Brazil' 'Coratia']
Player salaries: [2.e+08 3.e+08 4.e+08 5.e+08 6.e+08]
Player name: ['Ronaldo' 'Messi' 'Ronaldhino' 'Kaka' 'Modric']
Goals score: [33  3 23 32  4]
League name: ['fifa' 'fifa' 'aefa' 'uefa' 'cefa']
Matches played: [22 33 44 55 66]
1. Maximum salary: 600000000.0
2. Player who scored the most goals: Ronaldo
3. Player whose minimum salary: Ronaldo
4. Minimum salary: 200000000.0
5. Player whose maximum salary: Modric
6. Player who scored the least goals: Messi
7. Average salary: 400000000.0
8. League with the most played matches: cefa
9. League with the least played matches: fifa
10. League with the maximum goals: fifa
```