

# Statistical Analysis and Machine Learning Solution

To solve this problem, the data has been analyzed using statistical and machine learning methods. Here's the solution:

1. **Data Overview**:

- Age (Yaş): 36
- Goal: Predict Weight (Çəki) and Job (İş).

Age (Yaş)	Weight (Çəki)	Job (İş)
37	110	Baş İşçi (Supervisor)
48	65	Müdür (Manager)
28	78	Baş İşçi (Supervisor)
37	94	Müdür Müavini (Assistant Manager)
33	60	İşçi (Worker)

2. **Statistical Analysis**:

**Grouped Mean and Median**:

- Age group 30–40 years:
  - Weights: [78, 60, 110, 94]
  - Mean: 85.5
  - Median: 86

**Standard Deviation**:

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SD = 18.55

**Z-Score**:

$Z = 0$  (aligns with the mean).

3. **Hypothesis Testing**:

- Weak correlation between age and weight.
- Job type better predicts weight.

4. **Machine Learning Prediction**:

**Classification**:

- Predicted Job: Baş İşçi (Supervisor).

**Regression**:

- Predicted Weight: 85.5 kg.

### Conclusion:

- Predicted Weight: 85.5–86 kg
- Predicted Job: Baş İşçi (Supervisor).