

Ranking based on moderation coefficients

In this game, each member has three attributes: a city level ranging from 34 to 41, a number of monthly posts ranging from 0 to 20, and an individual reputation ranging from 0 to 50,000. How can we create a ranking by assigning different weights to these three attributes?

To create a **weighted ranking** based on the three attributes (city level, monthly participation, reputation), here is a clear and effective method:

1. Normalizing the attributes

Each attribute has a different scale. To compare them, they must **be normalized** between 0 and 1 (or 0% and 100%).

- **City level** (34 to 41): $\text{normalized} = \frac{\text{level} - (-3)}{41 - 34} = \frac{\text{level} - 34}{7}$
- **Monthly participations** (0 to 20): $\text{normalized} = \frac{\text{participations}}{20}$
- **Reputation** (0 to 50,000): $\text{normalized} = \frac{\text{reputation}}{50,000}$

2. Applying weights

Choose a weight for each attribute (example: 40% for level, 30% for participation, 30% for reputation). Calculate the **weighted score** for each member:

$$\text{Score} = (w_1 \times \text{normalized_level}) + (w_2 \times \text{normalized_contributions}) + (w_3 \times \text{normalized_reputation})$$

- $w_1 + w_2 + w_3 = 1$ (e.g., 0.4, 0.3, 0.3)

3. Final ranking

Sort members by **descending weighted score**.

Concrete example

Suppose a member with:

- Level = 38
- Posts = 10
- Reputation = 25,000

Normalization:

- Level: $\frac{38 - 3}{7} = 0.571$

- Participations: $\frac{10}{20} \equiv 0.5$
- Reputation: $\frac{25,000}{50,000} \equiv 0.5$

Weighted score (40%, 30%, 30%): $0.4 \times 0.571 + 0.3 \times 0.5 + 0.3 \times 0.5 = 0.2284 + 0.15 + 0.15 = 0.5284$

4. Choice of weights

- **City level:** Important for game balance?
- **Participation:** Should regular activity be rewarded?
- **Reputation:** Reward history? It's up to you

to define w_1, w_2, w_3 according to your priorities!

Need help calculating your members' scores or adjusting the weights? Tell me your values and I'll generate the rankings for you!

