

Mod: Rank Score

Currently the leaderboard ranks players based on their "win rate". This modification will introduce a new value called "rank score". And players with the highest "rank score" will appear in order on the leaderboards (highest score at top, lowest score at bottom).

How "Rank Score" is calculated

1. The database will now keep track of the "amount of spins" a player has bet on. If a player doesn't bet, then no "played spin" is registered for that spin.
2. We will calculate the "average number of spins played" (the average of all players). Call this value "P"
3. We will also calculate the "average lifetime bets" of all players. Call this value "B".

Summary of values:

P = average number of spins played by all players combined (total / number of players)

Px = number of spins played by an individual player

B = average lifetime bets by all players combined (total / number of players)

Bx = lifetime bets of individual player

RS = Rank score

Using the above new values, and the existing values, we will calculate a new value called "Rank score" (R) as per the below calculations.

Rank score of a player = (win rate) * (Px/P) * (Bx/B)

EXAMPLE

Assumptions:

The "average lifetime bet" for all players (B) = 300,000

Lifetime Bet for individual player (Bx) = 371,031

The "average number of spins played" (P) = 1,000.

Number of spins played by individual player (Px) = 900

Lifetime Win: 387752

Win rate: 1.045066

The calculations to find a player's "rank score" are:

$$\begin{aligned} \text{RS} &= (\text{win rate}) * (Px/P) * (Bx/B) \\ &= 1.045066 * (900 / 1,000) * (371,031/300,000) \end{aligned}$$

IMPORTANT: (Px/P) can never be greater than 1. And (Bx/B) can never be greater than 1.

$$\begin{aligned} &= 1.045066 * (0.9) * (1) \\ &= 0.9405594 \end{aligned}$$

SUMMARY

Basically the more a player has bet, and the more spins they have bet on, the more relevant their "win rate" becomes. If they've bet less than the averages, their rank score will be lower than if they had bet more than the averages.

We do NOT display the "rank score" on the leaderboard. This modification will only affect the ORDER that players appear on the leaderboard.

When this mod is complete and tested, all totals for players will be reset to ensure everything is fair for players. Only usernames and passwords need to be preserved.