SBSR-PointCounter

Description

Application offers bookkeeping for speedrun event. Players complete runs specified by previously added games. Run must be connected to player and game that can be found in the DB. Every game has a par time and players are awarded points in relation to the runs completion time. During the event participants can challenge each other and the winner of the challenge gets half of the losers points.

Functionality

- Adding players, games and runs
- Deleting players, games and runs
- Awards points and modifies multipliers after every new run
- Reset all players without removing runs
- Challenge handling→ reward winner, punish loser
- Point tier calculator in game specific page

Points and multipliers

* When I'm talking about par time, that is the time that gets you 5 points. There is no difference if you complete the run in half of the par time or just one second before it. Just to clarify.

Every run awards the player with 5-0 points. Runs points are calculated with completion time, games par time and players multiplier. Run loses 1 point after exceeding the par time and after that -1 point for every 10%(from par time) overtime. Run times for different points can be calculated in game specific pages.

Example:
Game has a par time of 11 minutes for the chosen part. Player has multiplier of 0.8 and he completes the run in 10min 20sec. The real par time is calculated with multiplier and original par time(in seconds): 0.8 * 660sec = 528sec = 8min 48sec. Completion time was 10min 20sec = 620sec. Completion time goes 620 – 528 = 92 seconds over the real par time. 10% from the real par time = 528 / 10 = 52,8 or about 52 seconds. So the run loses 1 point for exceeding par time and 92 / 52 = 1,769...(only 1 x 10%) = 1 point for 10% overtime, so the run is worth 3 points.

In order to smooth out the skill gaps between players, some game evening mechanics had to be implemented. Player multiplier modifies the next runs par time. If players previous runs have been sub par time, then the multiplier is lowered in order to make next one harder. On the other hand if your runs have lasted longer than the par time, then your multiplier is raised and the next run is made easier. Multipliers are either increased/decreased by 0.1 or reset to 1.0.

Cases:
points = 5, multiplier <= 1.0   →   multiplier – 0.1
points = 5, multiplier > 1.0   →   multiplier reset to 1.0
points < 5, multiplier < 1.0   →   multiplier reset to 1.0
points < 5, multiplier >= 1.0   →   multiplier + 0.1