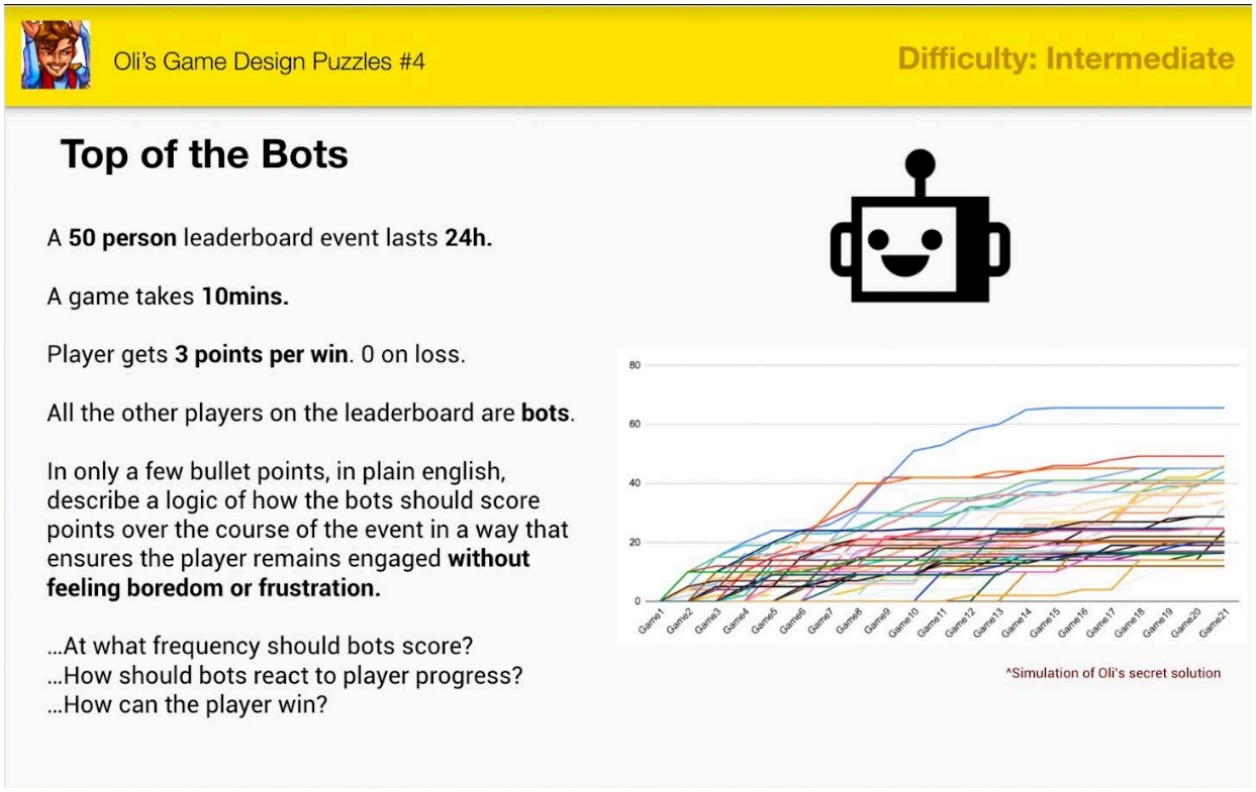
BOMBAY PLAY

GAME DESIGN ASSESSMENT



1. **Scoring frequency of the bots:**

- The bots win 1 out of every 4 games they play. This is the default behavior.
- This means 36 games are won by bots in total, in 24 hours. Hence,108 points.

2. **Bot reaction to player progress:**

- If the player is progressing fast i.e., scoring more than or close to bots, some bots will then start to win 3 games out of every 4 games played by them.
- And if the player progresses very slowly, some bots will slow down and will start to lose more.

3. **How the player can win:**

- **Case 1:** Initially the player needs 108 points to win, which can be achieved in continuous playing for 6 hours but as no one plays games for 6 hours straight, players can take 4 sessions of 1 hour of gameplay (4x6=24). Doing so, players won't trigger the bots to become aggressive and will be able to top the leaderboard.
- **Case 2:** If players do trigger bots to become aggressive, they can deliberately lose to make the bots slow down and then players can continue the game normally.
- Grind all the way through the event.

THE MATH BEHIND:

Even lasts = 24 hours => 24*60 => **1440 min**.
Single game lasts = **10 min.**
Points per win = **3**.
=> max games = 1440/10 = **144.**
Max points = 144*3 => **432**.

Default AI behavior: The bots will win 1 game out of every 4 games played by them.
=> ¼ * 144 => **36** games in total 24 hours.
and 36*3 => **108** points in 24 hours.

So, the player needs more than **108** points in **24** hours to win the event.
Now, **if** more than **half** of the event time is remaining and the player has already secured **70%** of the goal (**~76** points), the bots will then become aggressive and start to win **3** games out of **every 4** games played.

Let's suppose half of the time has passed and the player has secured *100 points*, hence bots are now aggressive.

So, 12 hours = **720** minutes.
Bots now win 3 out of 4 games played.
Max games remaining 720/10 = **72.**
=>72/4 = **18.**
=> 18*3 = **54** games won
54*3 = **165** points

So the player now needs **165**+**8**=**173** more points in the remaining **12** hours to top the leaderboard.
=> 165/10 = 16.5 => **~17** games.
17*10**= 170** minutes**(2.83** hours) required to play **17** games.

Bots win 2 games out of every 4 games played so, the player needs to win *at least 3* games out of *every 4 games* played to win the event.
In this situation, it is likely that the player will lack behind the bots. To overcome this, the player will have to grind to win.

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