

BRIEF

Word Race is a game designed to improve QWERTY typing rate and efficiency. Words appear one by one at a rate that goes up as time progresses. There's a limited "*stack space*" that fills up after a certain amount of words have appeared. Once a player types a word correctly, that word is removed from the stack.

The score is calculated based on how fast the player was able to clear that word, and a multiplier. The multiplier increases with every word the player types correctly and resets on any mistype. *Optionally* a leveling system can also be added that varies the *word appearing rate*, the *stack space* and *leveling up bonus score*, else the rate can go up constantly, flattening out at say one word per two seconds.

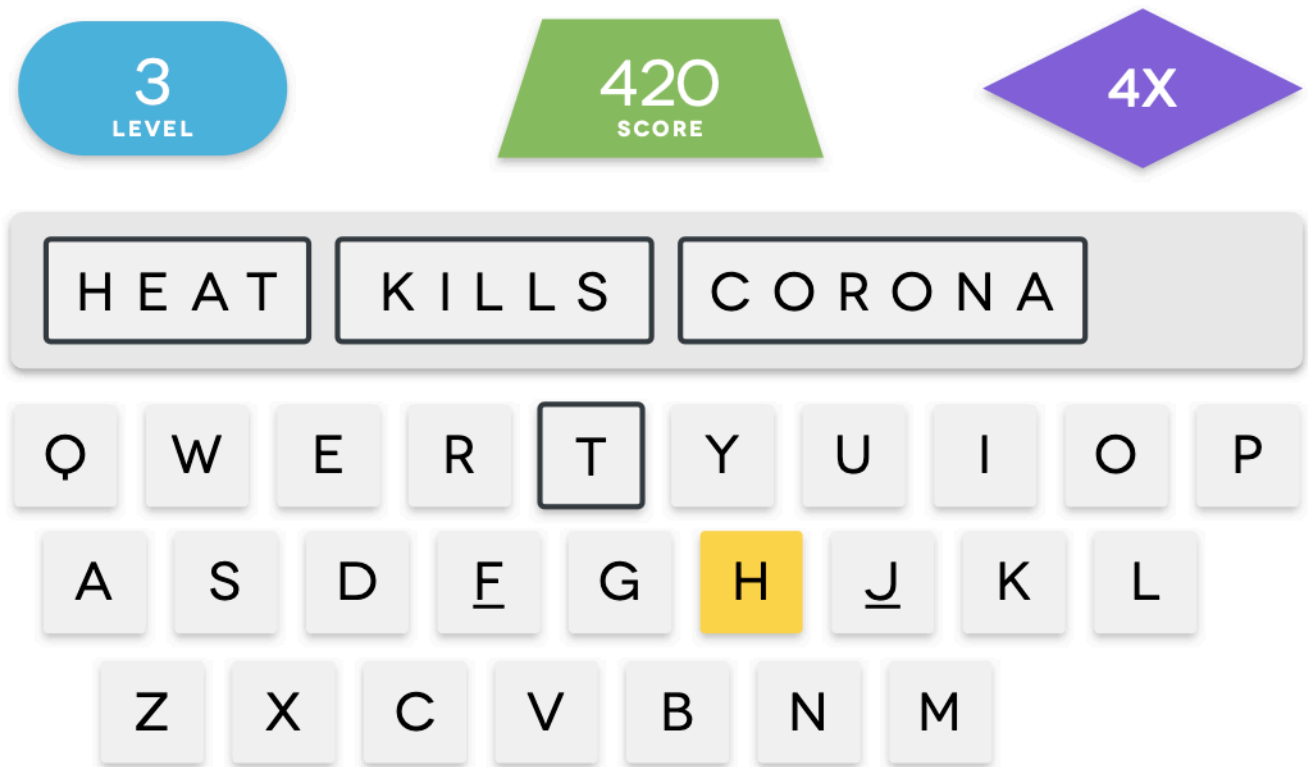
If the stack is full, it's game over. The player can then submit their score and compare with a leaderboard.

IMPLEMENTATION

Using *MERN* or a similar web stack, design a version of **Word Race** that has the following functionality:

- On screen *feedback mechanism* for the player to see what key they've pressed
- Stack view displaying if they player typed a word correctly or not, and proceeding with removing the word from the stack on correct typing
- Progress view indicating the current score, level (*optional*) and multiplier
- Interface to display the score once the game is over, saving it (if the player opts for it) in a database
- A leaderboard (top ten scores), and brief statistics display for say *number of games played*, *average score*, *max level reached*, etc.

- (Optional) Instructions before a player starts the game
- (Optional) Trending characters: that give bonus score if a word containing them is typed successfully
- (Optional) Some sound effects playing for successful or failed typing of a word, leveling up, multiplier change, and game over



SUBMISSION

Host your version of **Word Race** on a relevant hosting site.

We expect code and resources for the task to have optimal quality and performance, and *not* be sent to us as a zip file/google drive link/pigeon transported flash drive (Although bonus points if you manage to do the last one).

Additionally you're required to attach a brief document/presentation on how you have approached the task.

Any questions regarding the tasks can be addressed to engineering@thinkerbelllabs.com.