Devon Lee & Alec Mills

Assignment A10a – Design:

Our goal is to create a fun party-game style activity for our users to enjoy, either against themselves, or head-to-head with a friend. Specifically we are designing software implementation of the popular word game “Boggle”.

Our application will:

- Provide a GUI for a user to play Boggle
- The internal logic necessary for generating a valid board with reasonable letter-distribution
- Score user entries
- Offer a leader-board and game tracker persistent across instances of our application

We are hoping to implement, if time and ability allows:

- A solver function, that will generate a list of all possible valid Strings that can be formed, under the rules, using a given Boggle board
- Two-player functionality.

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GameBoard
-Dice[][]: char -letters[][]: char isFinished: Boolean
+GameBoard(Player: String) -isAdjacent(row1: int, col1: int, row2: int, col2: int) : boolean -guess(player: player, row: int, col: int) -resetGame() +getBoard : GameBoard

Player
+name: String -score: int -gamesWon: int -gamesPLayed: int -wordsFound: String[]
+Player(name:String) -changeName(newname:String)

Judge
-winner: String -scores[]: int[] -leaderBoard: Player[]
+displayStats +displayScore(player1: player) : int

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Sample Output

Boggle!

Rules explanation
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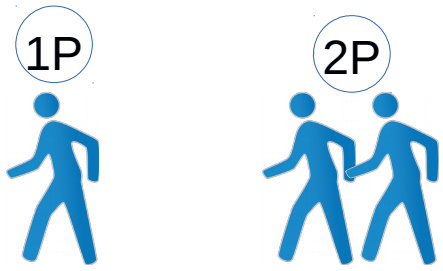
Play | *Leaderboard*



P1 Name: James

P2 Name:

Exit

User clicks 'Play' ->

User clicks '1P' ->

Time remaining 2:59

E	A	D	F
P	R	A	Y
R	R	L	E
M	I	U	S

MILES

Words found:

E	A	D	F
P	R	A	Y
R	R	L	E
M	I	U	S

Words found:
-Miles
-Pray
-Rule
-Dear
-Drale

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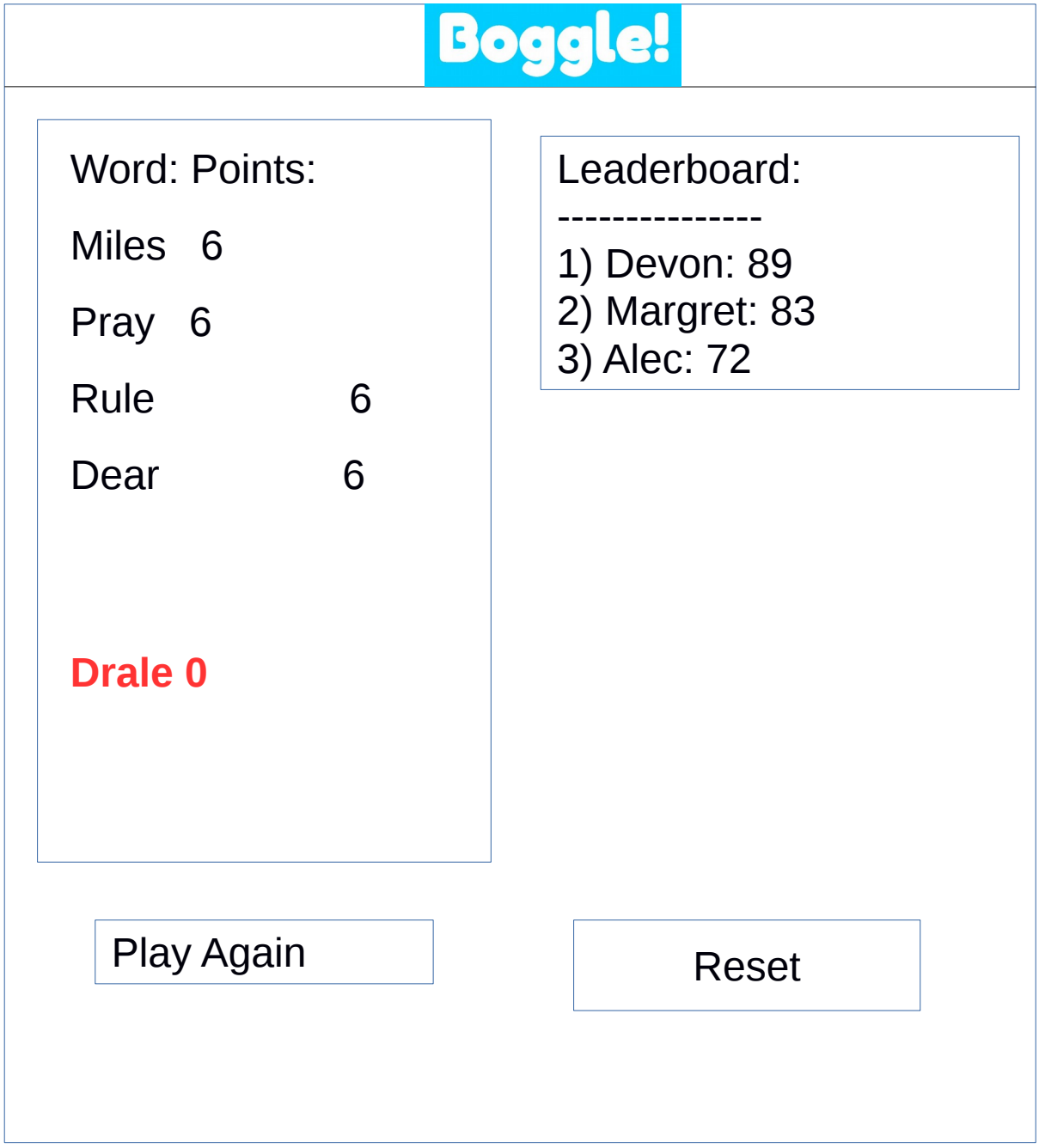

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Pebble Distribution:

Devon: 50 pebbles
Alec: 50 pebbles