



Team F:

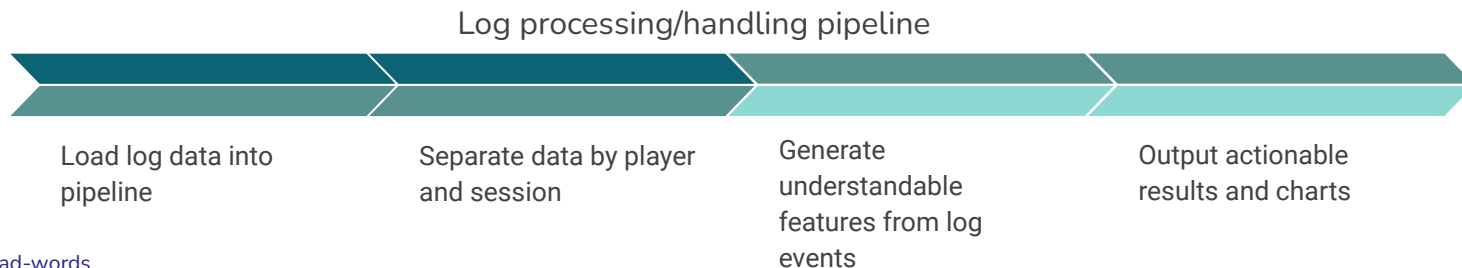
Team"); DROP TABLE Teams;

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Methodology & Results

Bottom line: Monitoring gameplay behaviors will allow researchers to identify at-risk students and maximize student engagement.

- **Goal:** Give actionable insights into the gameplay of individual students.
- **Methodology:** Log handling pipeline
- **Behaviors considered:**
 - Idleness
 - Event frequency
 - Minigame success & restarts
 - Aspirational Avatar engagement
 - Profanity used (Using “List of Bad Words” from Selene Arrazolo on data.world¹)
- **Future work:** Run feature engineering in parallel for real-time behavior identification.



1. data.world/sya/list-of-bad-words

Example Behavior Report

player_id: 6427001

Last Session

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Idle time (1 min): 22.0
Idle count (1 min): 0.0
Idle time (5 min): 17.0
Idle count (5 min): 0.0
Stars earned: 6.0
New minigames completed: 2
Total minigames completed: 3
Minigame quits: 0
Minigame restarts: 0
Label filled proportion: 1
Total events: 901
Number of profane words used: 0
Profane text:

This Session

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Idle time (1 min): 19.0 minutes, 9 instances
Percent change time: -14.0%
Percent change instances: 125.0%
Idle time (5 min): 0.0 minutes, 0 instances
Percent change time: -100.0%
Percent change instances: -100.0%
Stars earned: 4.0
Percent change: -33.0%
New minigames completed: 0
Percent change: -100.0%
Minigame quits: 0
Percent change: 0.0%
Minigame restarts: 0
Percent change: 0.0%
Label filled proportion: 1
Percent change: 0.0%
Total events: 626
Percent change: -31.0%
Profanity used: 0
Percent change: 0.0%
Previous profane text:

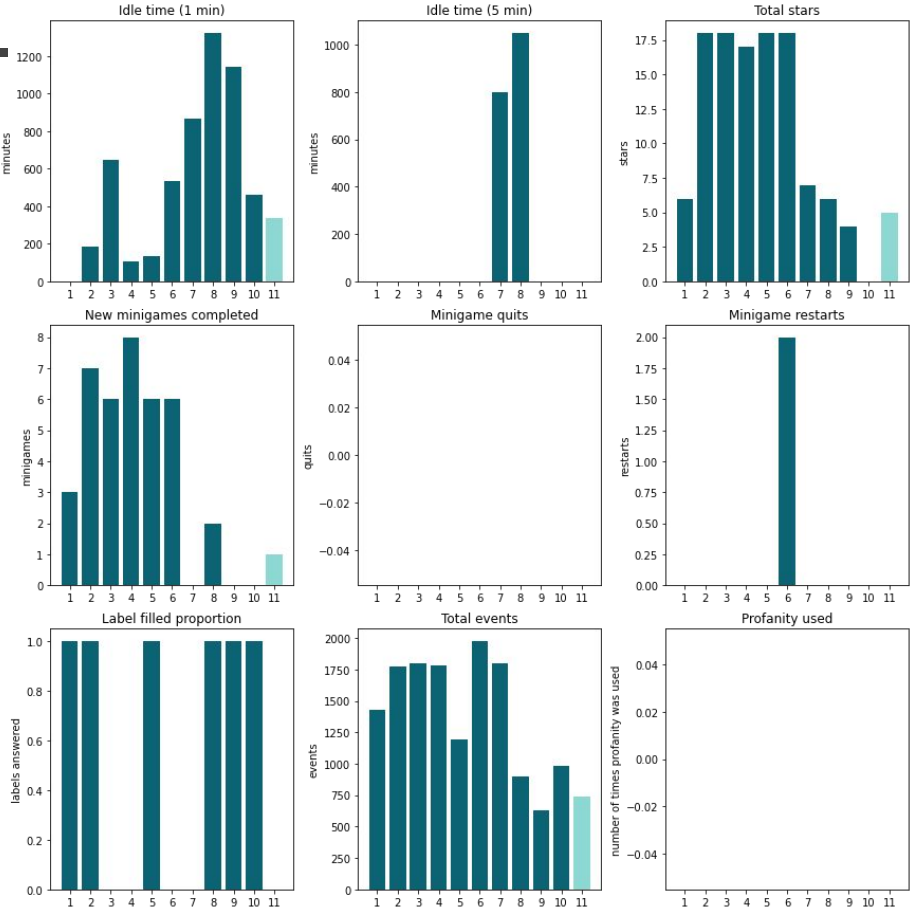
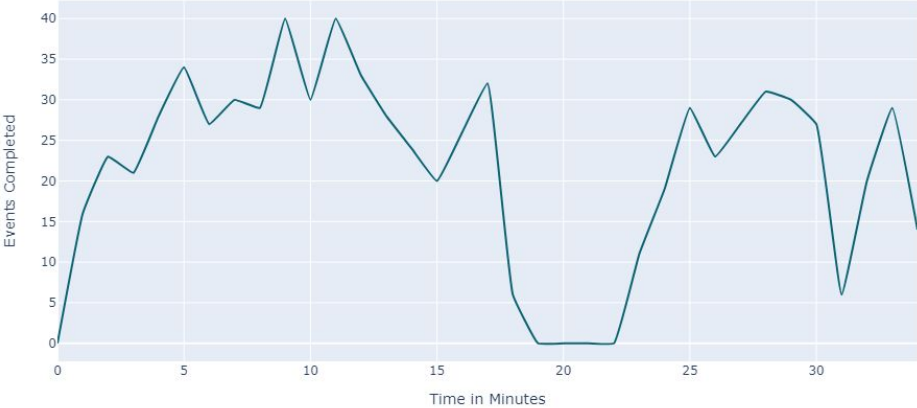
Unusual activity

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!! - Number of stars earned was 4.0 but is expected to be between 5.5 and 18.0
!! - Total number of minigames completed was 2 but is expected to be between 3.0 and 10.0
!! - Number of new minigames completed was 0 but is expected to be between 0.5 and 6.0
!! - Total number of events performed was 626 but is expected to be between 941.5 and 1791.5
!! - Total time in session was 2468 but is expected to be between 2777.0 and 4145.0
!! - Total time spent idling for more than 1 minute was 1141 but is expected to be between 0.0 and 757.5

Example Behavior Report Cont.

Events Per Minute



Session numbers on x-axis