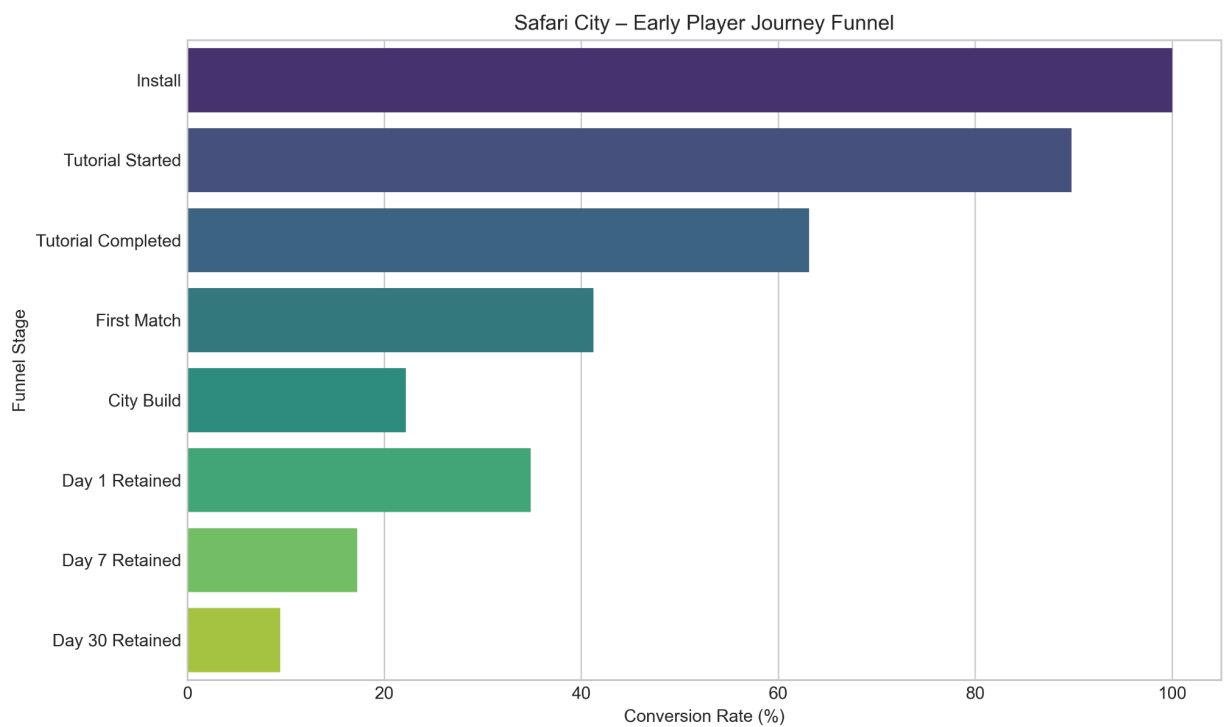


GAME REPORT

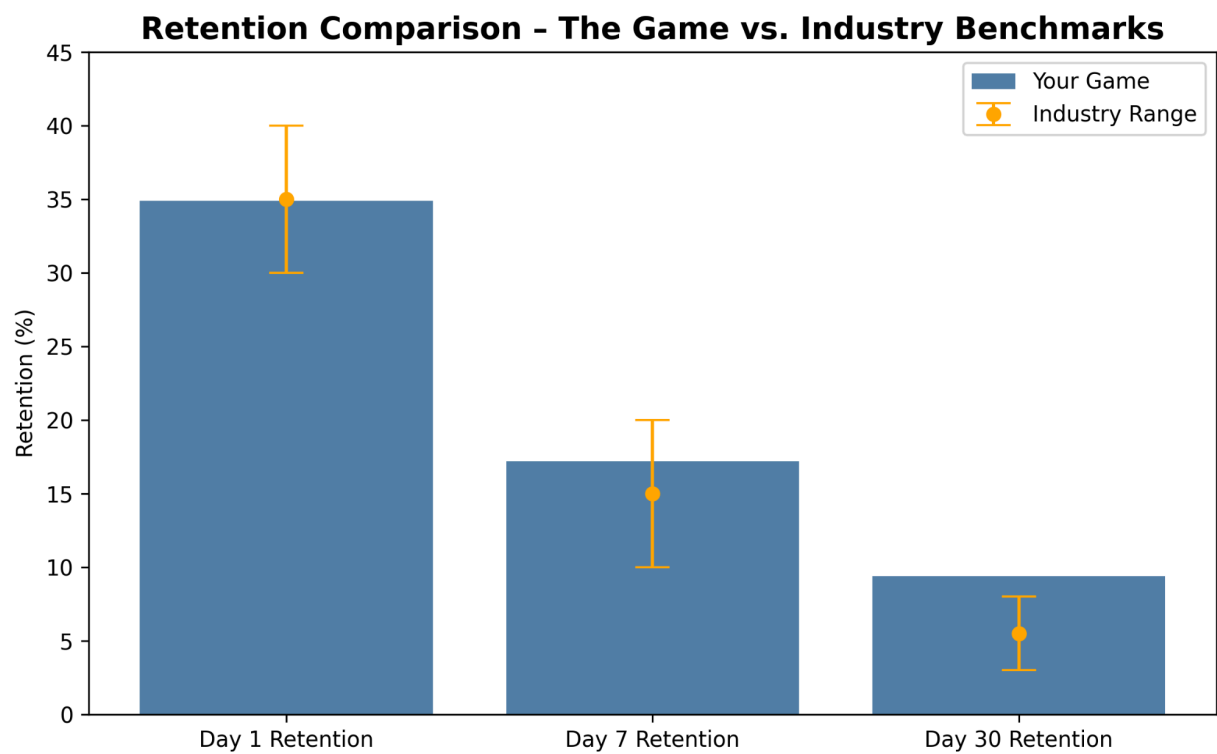
Early Player Journey Funnel



Stage	Players	Conversion %
Install	10,000	100%
Tutorial Started	8,979	89.8%
Tutorial Completed	6,315	63.1%
First Match	4,124	41.2%
City Build	2,219	22.2%
Day 1 Retained	3,489	34.9%
Day 7 Retained	1,724	17.2%

Day 30 Retained 943 9.4%

Retention Benchmark Comparison



Observations

- Day-1 retention (35%) exceeds genre average.
- Day-7 retention (17%) aligns perfectly with expected range (10–20%).
- Day-30 retention (9%) slightly above average, indicating a loyal player base.

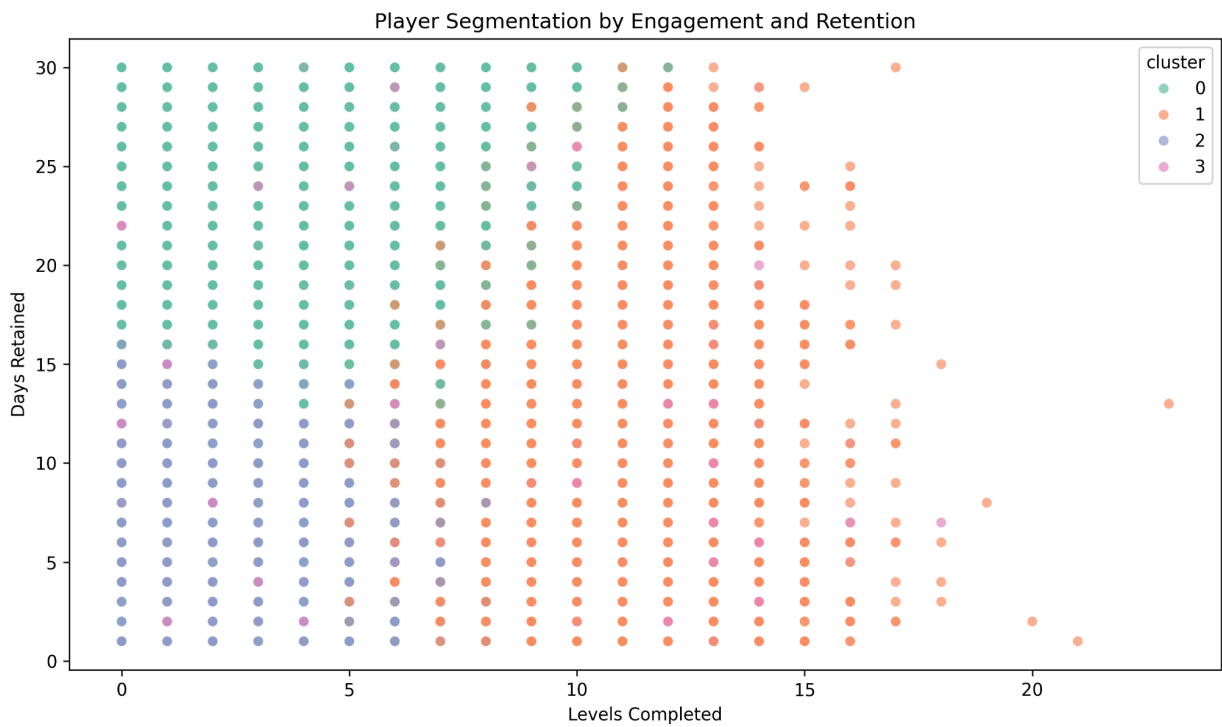
Interpretation

- High tutorial engagement but a significant drop (~26%) mid-way.
- Only 1 in 5 players reach the story-driven core gameplay.
- Retention curve consistent with mobile casual/sim norms (D7: 15–20%, D30: 7–10%).

Recommendations

- Simplify the tutorial and introduce early “build reward” milestones.
- Add push notifications or reward streaks to improve D7 retention.
- Strengthen the story hook between tutorial and first city mission.

Player Segmentation



Cluster	Archetype	Behavior Summary	Strategy
0	Story Explorers	High retention, low spend	Expand story content, offer narrative events
1	Engaged Builders	High progression, moderate retention	Add competitive leaderboards, timed build events
2	Casual Players	Low engagement, quick churn	Improve tutorial flow and first-session UX

3	Spenders / Whales	High spend, steady play	Create personalized bundles, loyalty rewards
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Insights

- *Story Explorers* show the strongest long-term engagement.
- *Casual Players* are the largest churn source; better onboarding can lift overall retention.
- *Spenders* represent a small but high-value group worth personalized offers.

Strategic Recommendations

Retention & Engagement

- Add **first-city goal progression** and story achievements to deepen engagement.
- Implement **daily challenges** tied to story arcs or rewards.
- Use soft-currency rewards or streak bonuses to reinforce daily play habits.

Monetization

- Introduce **early-value bundles** for Engaged Builders and Spenders.
- Offer premium *story unlocks* or *VIP bonuses* for long-term players.
- Experiment with **dynamic pricing** or **A/B testing** of offers.

Product Optimization

- Track real player-level events (tutorial_start, level_complete, purchase).
- Build analytics dashboards for player journey metrics.
- Validate simulation insights with Firebase cohort retention data.

Next Steps

1. Integrate deeper event tracking into Firebase (tutorial progress, first build).
2. Conduct A/B tests for tutorial flow adjustments.
3. Measure post-update funnel and retention lift.
4. Expand segmentation model with real purchase and session data.

Personal Suggestions

1. The initial story had no sound.
 2. The building process should continue in the background while the player focuses on strategy and gameplay.
 3. Ads for keys feel overwhelming. Either offer more keys per ad or introduce ads later—after the player is hooked.
 4. Expand story depth and variety by tying each new character to a unique gameplay style:
 - **Electrician:** a circuit-flow mini-game.
 - **Mason:** a “balance the bricks” speed challenge.
 - **Carpenter:** a tactile nailing/plastering task.
 - **Solar/Water:** a sustainability puzzle or maintenance challenge.These additions increase immersion and replayability.
 5. Consider showing the **future of the country** if the theme is a “come-up” story—build toward a *tycoon-style vision* of progress and prosperity.
 6. Level 35 tiered key winning system up to 5 keys for highest tier or fastest time completing.
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Deliverables

File	Description
01_data_cleaning.ipynb	Firestore data extraction & cleaning
02_data_simulation.ipynb	Monte Carlo simulation & analysis
data/processed/	Cleaned Firestore CSVs
data/simulated/simulated_players.csv	Simulated dataset
images/early_player_funnel.png	Funnel visualization
images/player_segmentation.png	Segmentation visualization
Game_Report.md / .pdf	Final project report
https://github.com/BLKSAge/MGameAnalysis	

Author

Data Analyst: Anthony Chestnut

Date: October 2025

Tools: Python, Jupyter, Scikit-learn, Seaborn, Plotly

Focus: Player Behavior Analytics, Retention Modeling, Game Data Science