



**Data Collection:** Use a process symbol to represent the step of collecting data from browser activity/events.

**Preprocessing:** Connect the data collection step to a preprocessing symbol, indicating the cleaning and preparation of the collected data.

**Feature Engineering:** Connect the preprocessing step to a feature engineering symbol, representing the creation and selection of relevant features from the data.

**Model Selection:** Connect the feature engineering step to a decision symbol, indicating the branching point for selecting different AI/ML models.

Eg. Logistic Regression, Random forest, K-Means clustering, Recurrent Neural Network.

# List of potential data points to collect from the browser activity/events for the 3D Trading Card Game

By collecting these data points, we can gain insights into various aspects of player behavior, engagement, social interaction, monetization, and technical performance within the game. These insights can then be analyzed to understand factors influencing player retention and inform strategies for improving the gaming experience and increasing player retention rates.

## **[NOTE : Assumptions made by current Progression of the Game]**

### 1.Player Engagement Metrics:

- Time spent in the game per session
- Frequency of logins per day/week/month
- Average session duration
- Number of matches played per session/day/week
- Duration of each match

### 2.Gameplay Metrics:

- Match outcomes (win/loss/draw)
- Types of game modes played (e.g., single-player, multiplayer, tournaments)
- Most frequently chosen characters/cards
- Level progression of characters/cards
- Unlocking of new characters/cards or abilities
- Actions taken during gameplay (e.g., attacks, defenses, trades)

### 3.Social Interaction Metrics:

- Participation in multiplayer matches or events
- Communication and interaction with other players (if available)
- Formation or participation in player guilds or communities

### 4.Monetization Metrics (if applicable):

- In-game purchases (e.g., character upgrades, skins, boosts)
- Conversion rate from free-to-play to paying players
- Average revenue per user (ARPU) from in-game transactions

### 5.Real-time Performance Metrics (blinking parameters):

- Latency (ms)
- Memory usage (MB)
- Frame rate (FPS)

