**Jumbotail Data Engineering Hiring Assignment Solution**

The problem statement requires the implementation of a system for tracking user journeys within an e-commerce application. The solution involves several components: Event Producer, Webhook, In-memory Queue, Queue Consumer, and Database. Here's an outline of the solution:

**1. Event Producer:**

- Implement a DRIVER class that generates events for each user.

- Simulate user behavior and generate events based on the user's journey within the application.

- Implement batching to optimize event sending.

- Monitor the API's performance by logging response times.

**2. Webhook:**

- Create a server that acts as a receiver for events, implemented as a REST API.

- The server should listen for incoming events at "localhost:8888/webhook".

- Process requests asynchronously and handle errors by implementing a retrial mechanism.

- Push events to the in-memory queue.

**3. In-memory Queue:**

- Select an in-memory queue system of your choice.

- Use the queue to enable asynchronous behavior for event processing.

- Events pushed to the queue by the webhook will be consumed by the Queue Consumer.

**4. Queue Consumer:**

- Develop a consumer that retrieves events from the in-memory queue in batches.

- Insert the retrieved events into the chosen database.

- Implement a retrial mechanism to handle errors during the insertion process.

- Handle duplicate events coming from the client.

**5. Database:**

- Select a suitable database for storing the events.

- Design the Event entity to facilitate the extraction of necessary information for generating the desired output.

- Handle multiple asynchronous write requests to the database efficiently.

**Final Output:**

1. Calculate the percentage of users at each stage of the user journey.

2. Evaluate the performance of different cities based on the percentage of users from each city.