People / Gyankosh /… / R&Rservice-Overview
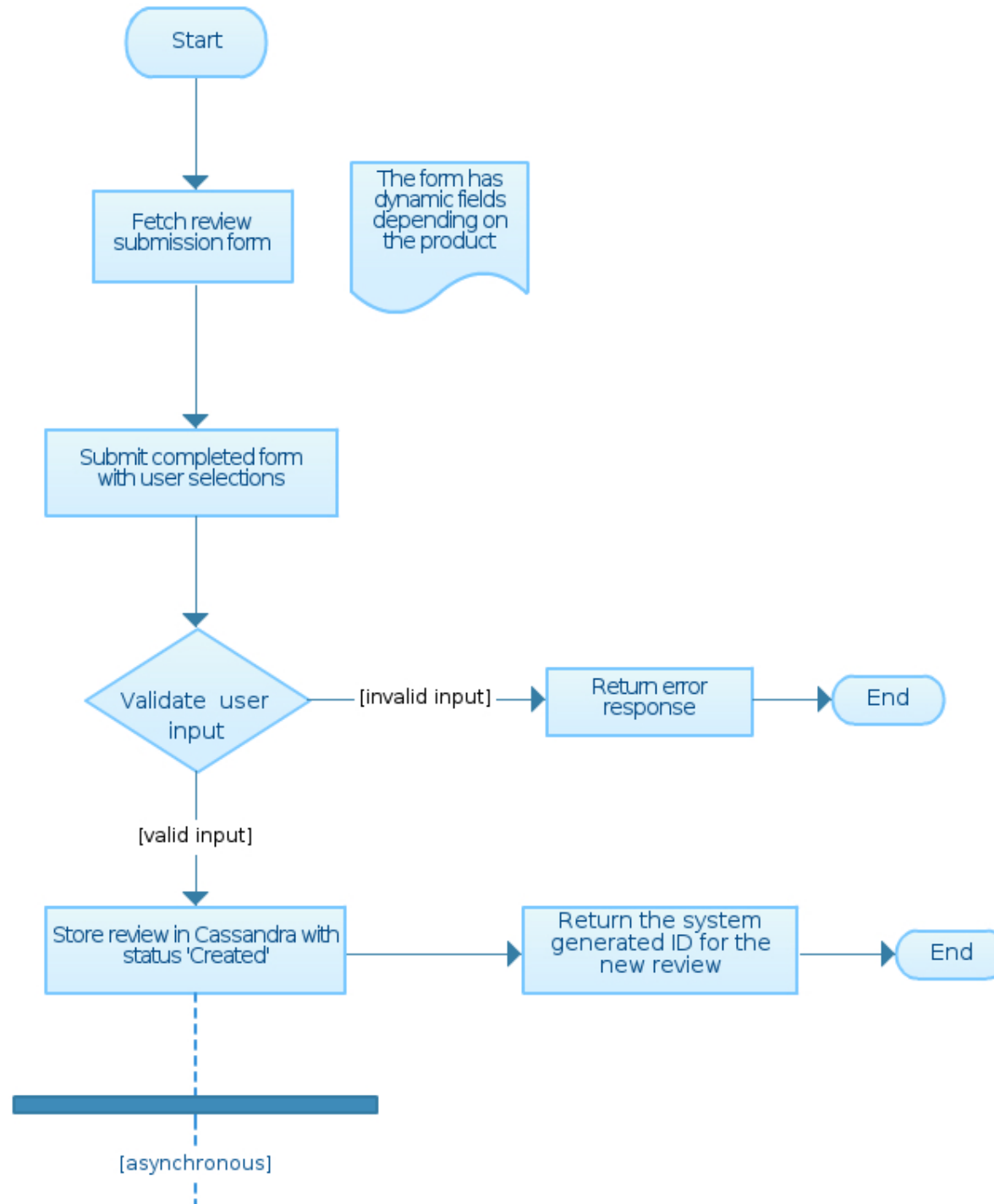
R&Rservice-Workflows

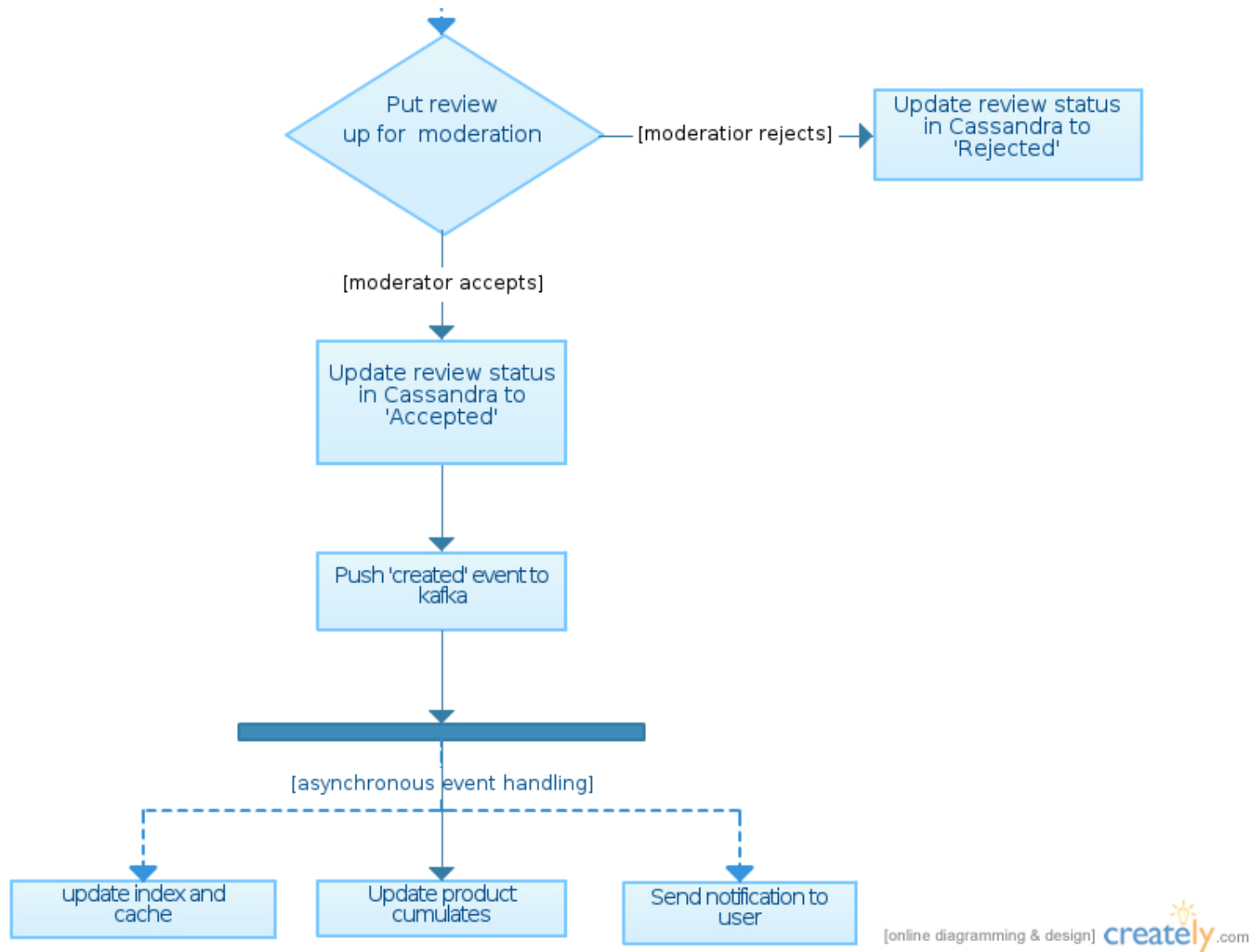Created by aditya shetty, last modified by Ravi Chauhan on Jun 03, 2015

Workflow

The below diagram depicts the two flows in the review system, the write flow and the read flow:

Write flow

1. The client first fetches a form that contains the set of valid fields for the specified product. These fields are configurable at a label or product level
2. Next, the client posts the completed form
3. Validations are done. There are of two type of checks:
    a. checking if mandatory fields are populated
    b. check if all fields have valid selections/values
4. Invalid requests generate an error response. if valid, the review is stored in Cassandra and its unique ID is returned
5. New reviews show up on the moderation service to be analyzed
6. If accepted, the status of the review as updated so it can be picked up by the read flow, else it is marked as rejected (soft delete)
7. The Create event is added to a kafka queue for asynchronous update of cache, index and product cumulates

Put review
up for moderation

[moderatior rejects] → Update review status
in Cassandra to
'Rejected'

[moderator accepts]

Update review status
in Cassandra to
'Accepted'

Push 'created' event to
kafka

[asynchronous event handling]

update index and
cache

Update product
cumulates

Send notification to
user

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Read flow

1. The client can query for:
   a. An individual review
   b. Reviews for a given product
   c. Reviews by status (for moderators only)

        d. Review related statistics for a given product
2. As an example, we consider the flow for fetching reviews for a given product since it is the most involved flow.
3. Based on the product id, first check the cache to see if the query results already exist
4. If not found in cache,send the query to the indexing framework to retrieve the results
5. Asynchronously update the cache while returning the results

> **Note: The index is regularly updated in the write flow.**

```
                    ┌─────────┐
                    │  Start  │
                    └────┬────┘
                         │
                         ▼
                  ┌──────────────┐
                  │ Client sends │
                  │   a query    │
                  └──────┬───────┘
                         │
                         ▼
                      ◇ Check
                  query paramters for     ──[invalid query]──►  ┌──────────────┐      ┌─────────┐
                      validity                                  │ Return error │ ───► │  Stop   │
                         │                                      │   response   │      └─────────┘
                         │                                      └──────────────┘
                         ▼
                   ◇ Cache lookup  ──────[Cache hit]────►  ┌──────────┐      ┌─────────┐
                         │                                 │  Return  │ ───► │   End   │
                         │                                 │  cached  │      └─────────┘
                         │                                 │  result  │
                    [cache miss]                           └──────────┘
                         │
                         ▼
                ┌─────────────────────┐
                │ fetch IDs in sorted │
                │  order of reviews   │
                │  that match query   │
                └──────────┬──────────┘
                           │
                           ▼
```
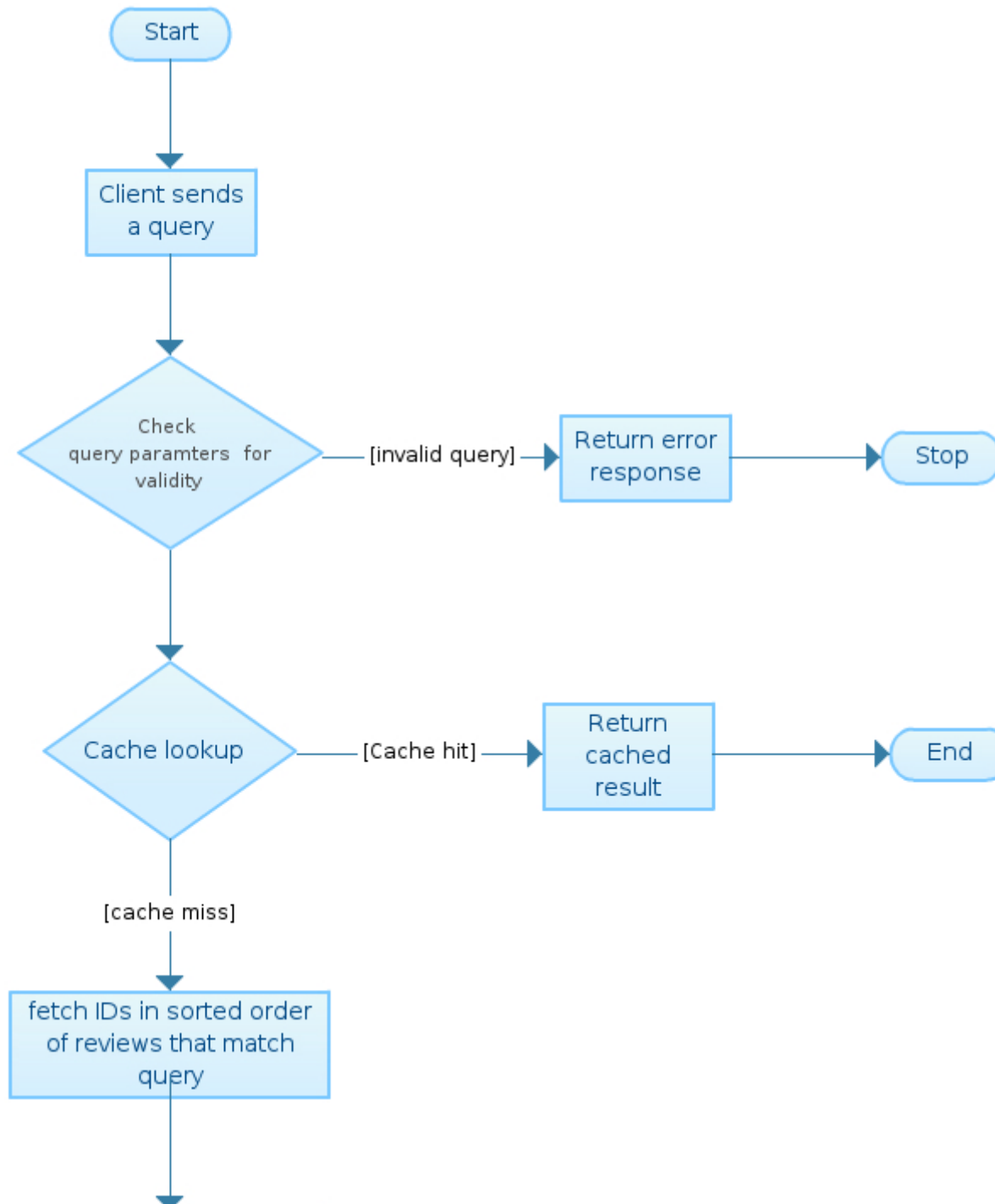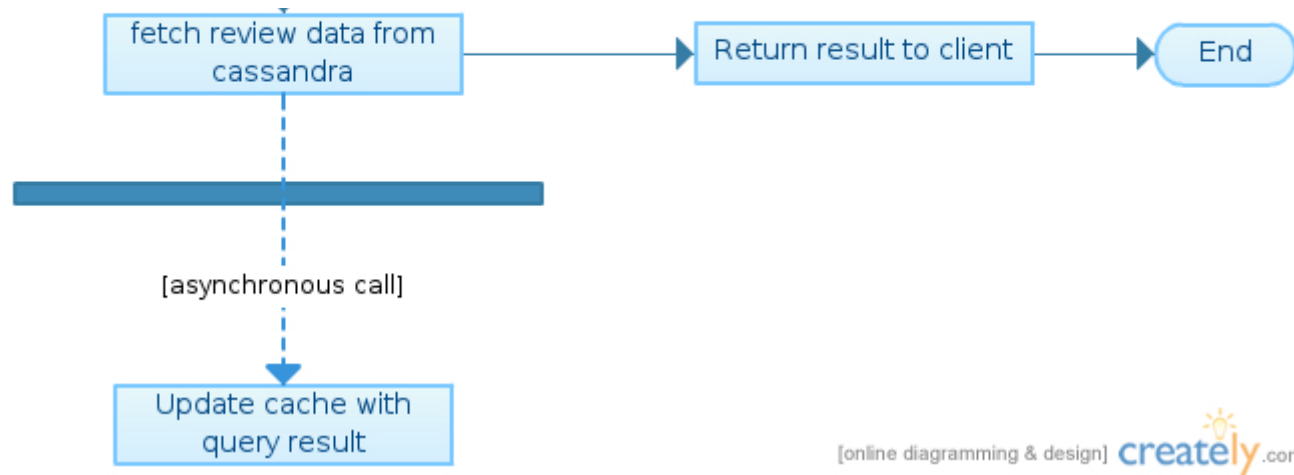
Power Reviews Workflow

Refer to this link.

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