

Feedbacks page server - Essay

Our open position needs a person to maintain and evolve our product backend, as well as keep good communication with pairs and the product team. We take care of the web product that is the main platform for our customers to manage and access their data.

This playground project aims to the day-to-day activities.

Context
Essay specification
Requirements
Data specification
How the essay will be evaluated?

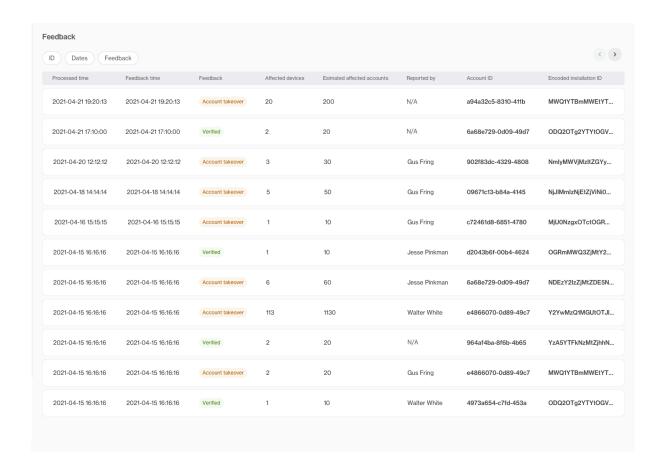
Context

Incognia's customers can report feedback to an account or device to control specific cases. The feedback processing is asynchronous, so they don't know the final result right away. For example, how many accounts or devices were affected.

To give visibility over this, our product designer proposed an MVP page to list these feedback results.

You were assigned to understand the problem and propose a back-end implementation to serve the front-end.

Feedbacks page server - Essay



Essay specification

Write a document in English describing the high-level solution, the back-end classes and layers, and the database schema and queries.

- Remember to justify your choices;
- Suggest the server protocol and database that you judge is most suitable;
- Feel free to use images if you deem it necessary;
- · For simplification, doesn't consider authentication;

Requirements

In this section, we provide the expected behavior for the page and server.

- The front-end should be able to list, filter and paginate feedback;
- All requests should receive an organization_id to identify the customer organization;
- All filters can be combined: ID, Dates, or Feedback;

- The ID filter can receive multiples values of "Account ID" or "Encoded Installation ID";
- The Dates filter looks for "Processed Time" or "Feedback Time";
- The Feedback filter can receive multiple values of "Feedback";

Data specification

Another team will be responsible for writing the feedback results into the database that you will propose. Consider that the data will be available for querying and that it's expected to handle about 10M insertions daily and about 500 accesses daily.

There's an example of the data that they have available:

```
// Feedback
{
  id: 7,
  organization_id: 4,
  reported_by_user_id: '2ead2e59-b753-4f2f-b83a-dc29a0f15911'
  account_id: 'db00bd7f-101f-4a75-85dd-43b4bf55ff33',
  installation_id: '4e017ca6-a10e-4dda-bbf4-a841c59b4060',
  encoded_installation_id: 'NGUwMTdjYTYtYTEwZS00ZGRhLWJiZjQtYTg0MV
  feedback_type: 'verified',
  feedback_time: '2023-08-14 12:10:00'
}
// Feedback Result
  feedback_id: 7,
  affected_devices: 10,
  estimated_affected_accounts: 5
  processed_time: '2023-08-14 12:12:00'
}
// User
  id: '2ead2e59-b753-4f2f-b83a-dc29a0f15911',
  name: 'Mike Ehrmantraut',
```

```
email: 'mike@lospolloshermanos.com'
}
```

- The feedback_type attribute can be one of these: verified, reset, account_takeover,
 or identity_fraud;
- The encoded_installation_id attribute is a Base64 of INSTALLATION_ID>:APP_ID>

```
$ ENCODED_INSTALLATION_ID='NGUwMTdjYTYtYTEwZS00ZGRhLWJiZjC
$ echo -n $ENCODED_INSTALLATION_ID | base64 --decode
4e017ca6-a10e-4dda-bbf4-a841c59b4060:93dedd47-0728-48ad-ac85-c
$ echo -n 'some-installation-id:some-app-id' | base64
c29tZS1pbnN0YWxsYXRpb24taWQ6c29tZS1hcHAtaWQ=
```

How the essay will be evaluated?

- Was the document clear and well-written?
- Were the choices well-founded?
- Does the solution solve the problem?