



VIRTUSA SRE HACKATHON COMPETITION 2021

TEAM TREX

TEAM MEMBERS

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HACKATHON CHALLENGE

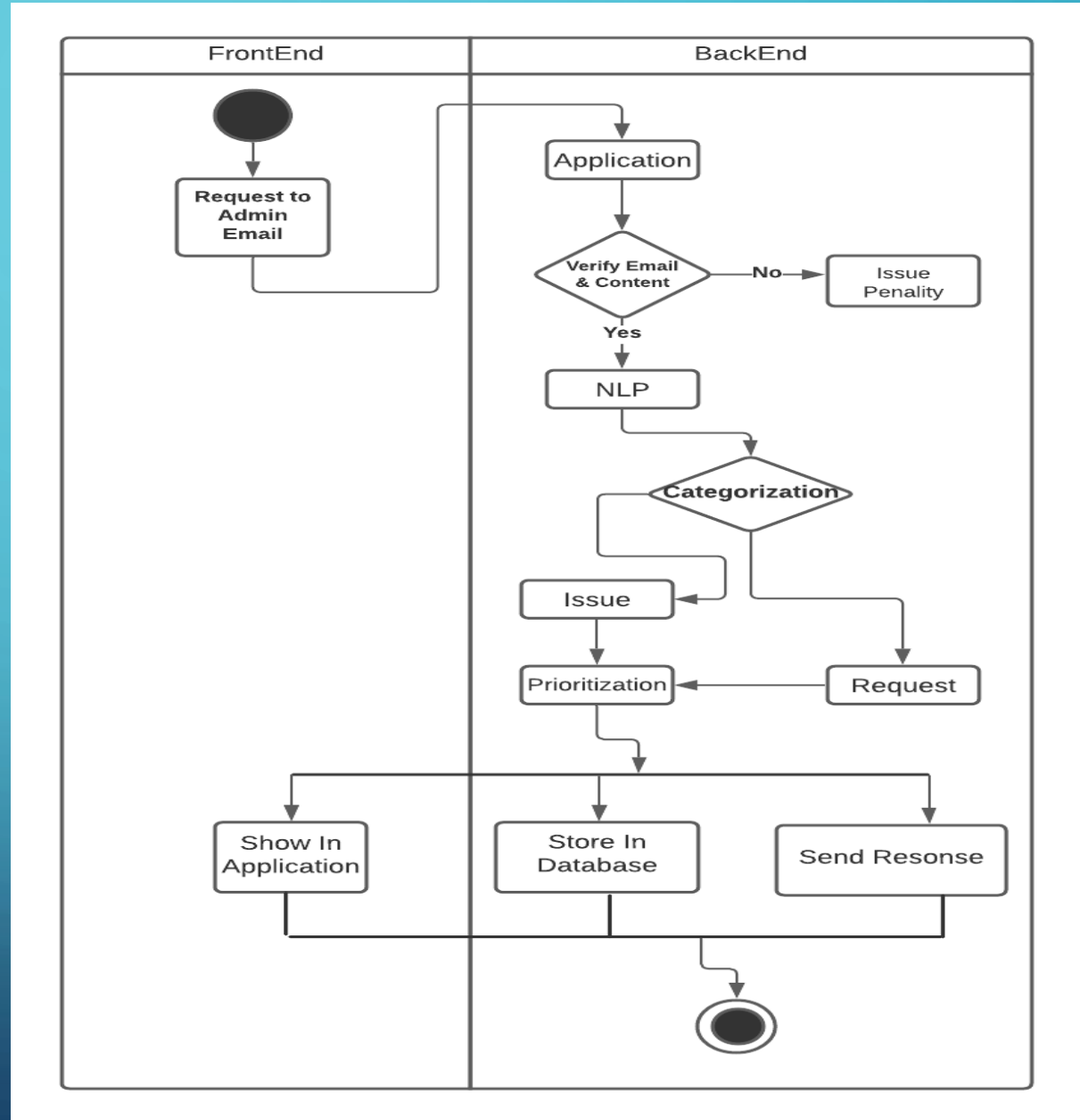
- **Email based incident tracking**

- Automate the process of email based incident tracking.

Problem

- A support team working on customer issues & requests to provide solutions.
- Most of the time customer contact the support team via emails.
- Customer expecting to have proactive follow-up on their complains and requests.
- The company committed for certain SLA on handling customer requests.
- If the SLA violated the company subjected to penalty.
- It is the responsibility of team leads to prevent the SLA violations.
- Currently each team leads have to go through individual mail box and consolidate reports on customer queries.
- This is very resource intense task, and frequently it leads to human errors.

UML DIAGRAM





Main Programming Language

(1) Java

Framework we used

(1) Spring Boot

Technologies we used

(1) javax.mail

(2) NLP (Natural Language Processing)

Database we used

(1) Firebase



Why Select JAVAX.MAILS

We choose javax.mail to receive emails. But in the beginning we had decided to use Google's Gmail API to receive emails, but we had to face some difficulties, and time is limited, so due to that resonance, we chose javax.mail to save emails.

Why Select NLP (Natural Language Processing)

we selected NLP because we had to categorize an email to request or issue

Why Select Firebase as Database

We can update the database in real time easily with the Firebase database.
So we use this database as our database.

STRUCTURE OF THE DATA MODEL (FIREBASE)

The screenshot displays the Firebase Cloud Firestore console interface. The left sidebar shows the project overview and various services. The main area shows the 'emails' collection with a list of documents. The selected document '1gH7PKPbp8Z5T5HIXHEF' is shown in detail on the right.

Project Overview:

- Project: trex
- Database: Cloud Firestore
- Location: nam5 (us-central)

Data Model Structure:

The 'emails' collection contains documents with the following fields:

- completedTime: null
- from: 'notification+zj4y92_92tf6@facebookmail.com'
- issueCount: 0
- message: 'javax.mail.internet.MimeMultipart@793b5b39'
- receivedTime: December 4, 2014 at 3:02:39 PM UTC+5:30
- requestCount: 0
- senderName: 'Facebook'
- status: 'Pending'
- subject: 'Tharuka Kulathunga shared 9GAG's photo'
- type: 'Issue'

FRONTEND DESIGN

Tables / Basic

Dashboard >

All Emails

Simple Table

SENDER NAME	SENDER EMAIL	TIME	STATUS	SUBJECT	MESSAGE	TYPE
Facebook	notification+zj4y92_92tf6@facebookmail.com	063552870565.000000000	Pending	Only For VidyaLIONS	javax.mail.internet.MimeMultipart@41aa93e1	Issue
Facebook	update+zj4y92_92tf6@facebookmail.com	063552922904.000000000	Pending	Dulmin, you have 20 new notifications, 3 friend suggestions and 17 close friend updates	javax.mail.internet.MimeMultipart@5cec1208	Issue
Facebook	notification+zj4y92_92tf6@facebookmail.com	063553007009.000000000	Pending	Nethu Shashendri Akarsha has a birthday today	javax.mail.internet.MimeMultipart@66bda3fa	Issue
Facebook	notification+zj4y92_92tf6@facebookmail.com	063552861857.000000000	Pending	Only For VidyaLIONS	javax.mail.internet.MimeMultipart@1581e5a8	Issue
Facebook	notification+zj4y92_92tf6@facebookmail.com	063553005767.000000000	Pending	Chamodhi Fernando shared a photo	javax.mail.internet.MimeMultipart@715dbcf6	Issue
Facebook	notification+zj4y92_92tf6@facebookmail.com	063553093035.000000000	Pending	Dilshan Gunasena shared a video: "ප්‍රේම මිනිසුන් එකතු වී උතුම් මනුෂ්‍යත්වය..."	javax.mail.internet.MimeMultipart@717b817f	Issue
Skype	noreply@alerts.skype.com	063552875758.000000000	Pending	You have a new voice message	javax.mail.internet.MimeMultipart@75dd295a	Issue
Facebook	notification+zj4y92_92tf6@facebookmail.com	063552873077.000000000	Pending	Only For VidyaLIONS	javax.mail.internet.MimeMultipart@571a692a	Issue
Kaspersky Lab	news@mail.kasperskylabs.com	063553096878.000000000	Pending	Your Kaspersky Internet Security Trial expires today	javax.mail.internet.MimeMultipart@3c6b5f8	Issue
Facebook	notification+zj4y92_92tf6@facebookmail.com	063553180776.000000000	Pending	Hansa Hiranya shared a photo: "Don KaiZz fucking Triumph Street Triple"	javax.mail.internet.MimeMultipart@7d55bbe7	Issue
Facebook	notification+zj4y92_92tf6@facebookmail.com	063553265848.000000000	Pending	Hansa Hiranya shared a photo: "Don KaiZz"	javax.mail.internet.MimeMultipart@78e289f1	Issue

NLProcessor.java client_secret_1619...json client_secret_1619...json client_secret_6587...json client_secret_6587...json hackthon.zip client_secret_6587...json Show all

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