**Itinerary-planning**

**Voting-and-Polling Service**

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# 1.Introduction

This document outlines the specifications for the API endpoint used to add a suggestion to a specific trip. The endpoint is secured, requires user-level authorization, and interacts with the internal Trip Service for data processing and validation.

**Features**

* **Vote Counting**: Each suggestion can receive votes from users.
* **One User, One Vote**: A user can only vote once per suggestion. Duplicate voting attempts are blocked.
* **Vote Validation**: The system ensures vote authenticity by verifying the user’s identity and checking vote limits.
* **Vote History Maintenance**: The system maintains a history of all votes, including who voted and when, for audit and analytics purposes.

# 2. Tech Stack

|  |  |
| --- | --- |
| Technology | Version |
| JDK | 17 |
| Maven | 3.6.3 |
| Spring Boot | 3.5.3 |
| PostgreSQL | 9.4 |
| Kafka | 7.4.3 |
| Zookeeper | 7.4.3 |
| Zipkin | 2.23 |
| Redis | 8.0.3 |
| Qdrant - Vector Database | 1.15.3 |

# 3. Data Dictionary

|  |  |  |
| --- | --- | --- |
| No. | Table Name | Description |
| 1 | polls | Stores information about each poll, including question, creator, associated trip and suggestion, and expiration details. |
| 2 | poll\_options | Contains options associated with each poll and tracks the number of votes each option has received. |
| 3 | poll\_votes | Records individual votes cast by users, including voter identity and timestamp. |

## 3.1.1 Polls

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Description | Sample Value |
| pollId | Long | Unique identifier for the poll | 1001 |
| tripId | String | ID of the trip associated with poll | "TRIP-56789" |
| suggestionId | String | ID of the suggestion being polled | "SUG-12345" |
| question | String | Poll question | "Where should we stay?" |
| userName | String | Creator of the poll (username) | "john\_doe" |
| createdAt | LocalDateTime | Timestamp when poll was created | 2025-08-20T14:30:00 |
| expiresAt | LocalDateTime | Poll expiration timestamp | 2025-08-22T14:30:00 |
| type | String | Type of poll (e.g., single/multiple) | "single" |
| options | List<PollOptions> | List of options in the poll | See PollOptions below |

## 3.1.2 PollOptions

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Description | Sample Value |
| optionId | Long | Unique ID for the poll option | 501 |
| optionText | String | Text of the option | "Hotel A" |
| votes | Long | Number of votes received | 23 |
| poll | Polls | Reference to parent poll | Reference to Polls.pollId |
| pollVotes | List<PollVotes> | List of votes for this option | See PollVotes below |

## 3.1.3 PollVotes

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Description | Sample Value |
| voterId | Long | Unique ID for the vote | 9001 |
| userId | String | ID of the user who voted | "USR-1002" |
| userName | String | Name of the user who voted | "john\_doe" |
| createdAt | LocalDateTime | Timestamp when the vote was cast | 2025-08-20T15:00:00 |
| pollId | Long | ID of the poll (redundant reference) | 1001 |
| option | PollOptions | Reference to the selected option | Reference to PollOptions.optionId |

4.REST API Endpoints  
**Base URL:**

<http://localhost:8222/api/v1/polls/>

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Method | Endpoint | Description |
| 1 | POST | /api/v1/polls/{pollId}/{optionID}/vote | Add a suggestion to a trip |

4.1.1 /{pollId}/{optionID}/vote

|  |  |
| --- | --- |
| Field | Value |
| Method | POST |
| URL | http://localhost:8222/api/v1/polls/{pollId}/{optionID}/vote |
| Authorization | Bearer Token |
| Auth Role | User |
| Path Variables | pollId (Long), optionID (Long) |
| Request Body | None |
| Response Body | ResponseDTO |
| DTO | Handled internally via ResponseDTO |
| Internal Service Dependency | No |

# 5.Project Structure

account-service/

├── src/

│ ├── main/

│ │ ├── java/

│ │ │ └── com/

│ │ │ └── com.ltineraryplanning.votingandpoll/

│ │ │ ├── config/

│ │ │ ├── controller/

│ │ │ ├── service/

│ │ │ ├── repo/

│ │ │ ├── model/

│ │ │ ├── dto/

│ │ │ ├── kafka/

│ │ │ └── VotingAndPollingServiceApplication.java

│ └── resources/

│ ├── application.yml

│ ├── static/

│ └── templates/

├── test/

│ └── java/

│ └── com/

│ com.ltineraryplanning.votingandpoll/

│ └── VotingAndPollingService/

│ ├── controller/

│ ├── service/

│ └── VotingAndPollingService