

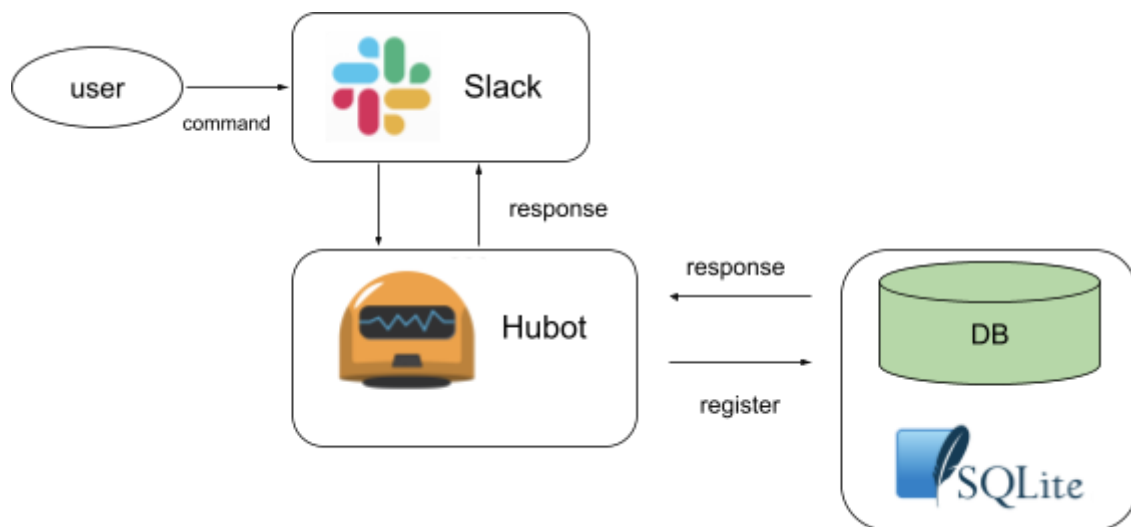
Title

Imprinting_App

Background

It is essential to control how long employees work to do their jobs. Therefore, I will create an application that registers arrival and departure times in a database and calls up the data from the database to know the working hours.

Architecture



Requirements

- The application registers a user's arrival and departure times for a given day. It then calculates work hours from the registered data.
- A user uses the application twice a day (to work and leave work). (Departure time is never more than 24:00.)
- Break times are not taken into account.

Features

- If “username {username}” is typed in the Slack, the slack id and username of the user who typed the command are registered in the database.

- If "start" is typed in the Slack, the arrival time is registered in the database, and if "end" is typed in the Slack, the departure time is registered in the database.
- If "log {username} {date}" is typed in the Slack, we will get the user's work hours for the day.

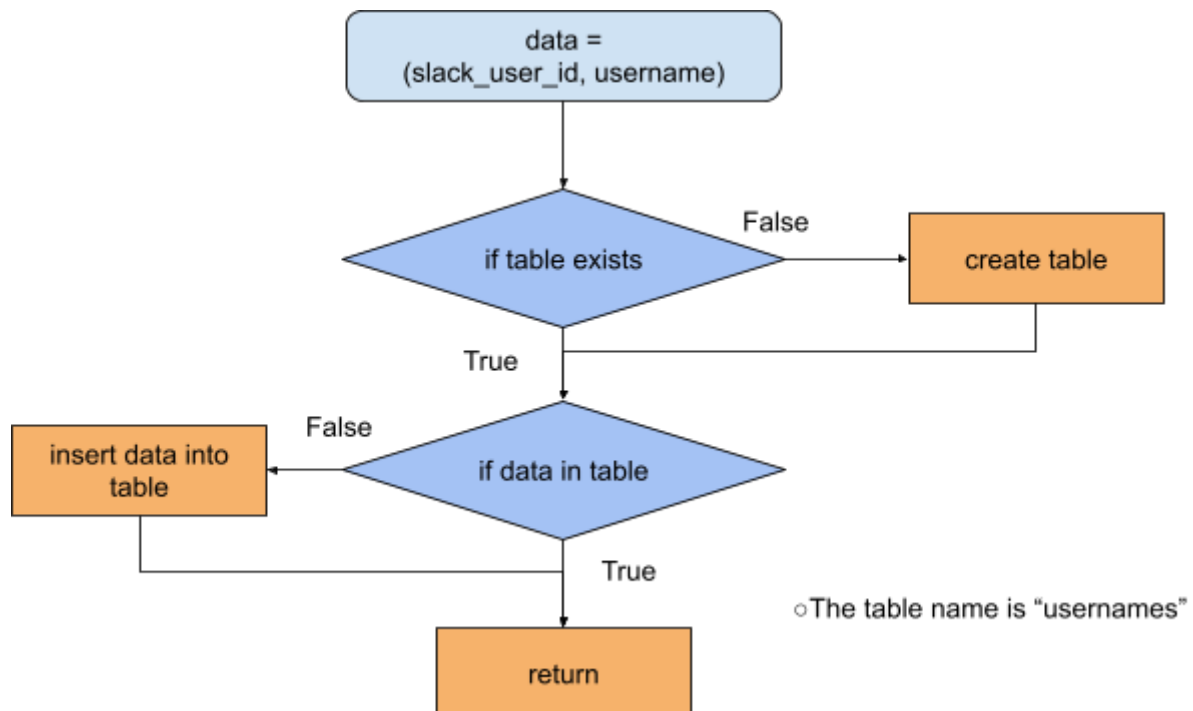
Design for database

usernames	
id (primary)	int
username	text
slack_id	text
created_at	text
updated_at	text

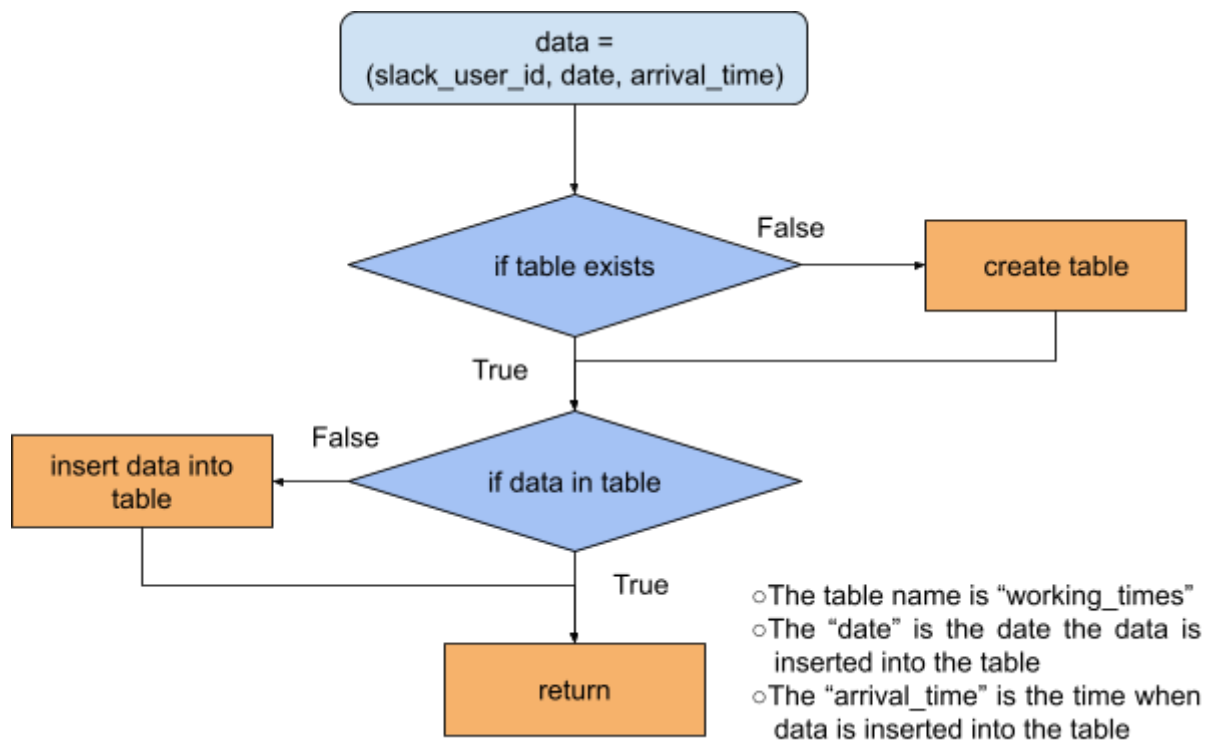
time_data	
id (primary)	int
user_id	text
date	text
arrival_time	text
departure_time	text
working_time	text

Implementation

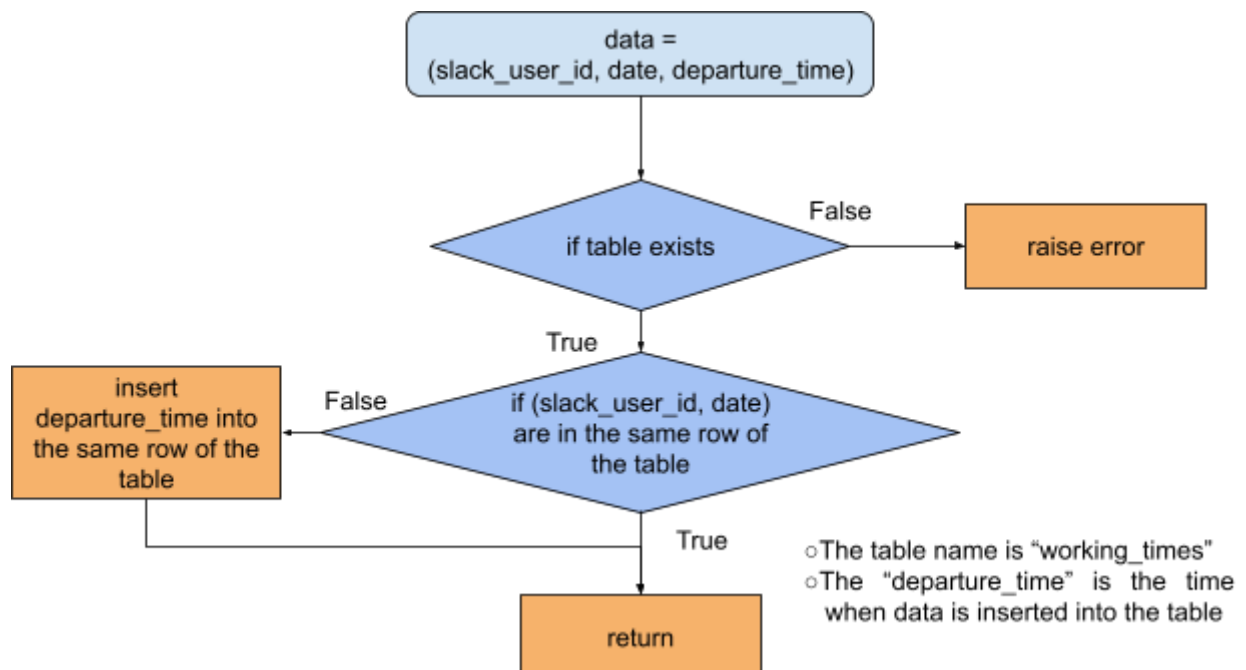
Register username



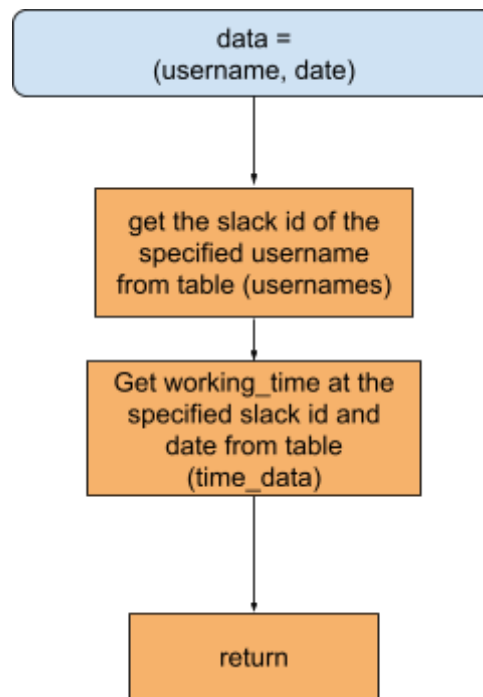
Register arrival time



Register departure time



Read working time



Work in progress (not yet started)

- Front-end
- Benchmark test
- Migration
- Log output to log file
- SQLite → MySQL
 - Inconvenient in every way, including no datetime type in SQLite3
- Passing the table name as a parameter to the function
 - It is more convenient to specify the table name considering the test, etc.