Viima Slack bot

1. Designing a Slack bot

Slack is a tool for team communications. It has a functionality which allows bot users to take part in chat, allowing users to ask questions or data output from the bot user. The exercise was to design a Slack bot which solves two primary concerns:

- Increasing the usage of Viima within organization
- Staying up-to-date about what's happening without needing to log in or receiving emails

My plan is to create bot which serves Viima data to the group conversations, which notifies about new activities in Viima and which is pleasure to use.

After playing around with the Viima tutorial board and Google Chrome developer tools I noticed how the server serves the JSON data to the browser. E.g. in this case the ideas could be found from https://demo.viima.com/api/customers/280/items/ and newest activities from https://demo.viima.com/api/customers/280/activities/ where the number 280 is board number.

Slack API is fairly simple and intuitive to use. In this project I decided to use Python and a small Slack bot library for Python (https://github.com/lins05/slackbot). I'll create virtual environment for Python and set Slack bot token as an environmental variable.

2. Implementing the Slack bot MVP

- The code can be found here https://github.com/juhoen/viima_slackbot
- The Slack channel is https://viimaslackbot.slack.com/
- Slack channels used in this project are #general and #viima_notifications.

The Slack bot is online on my own server for a testing purposes.

3. Reflection

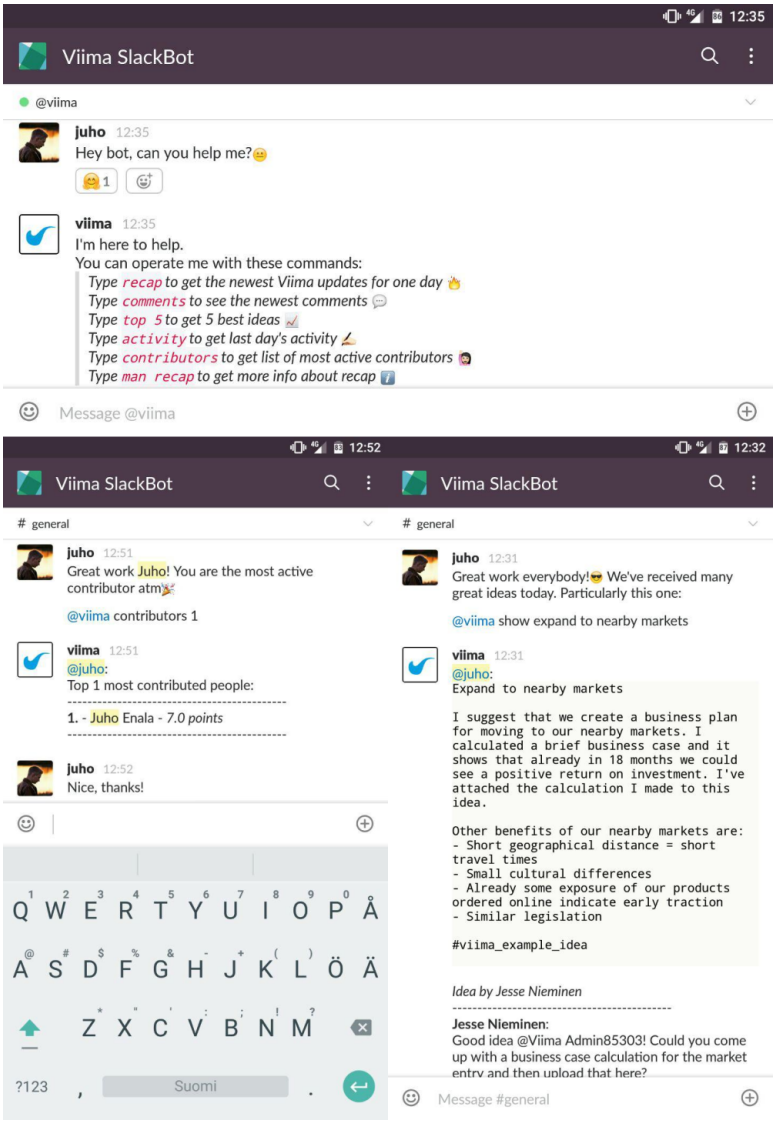
I'm quite satisfied in the result. The Slack bot have some useful and powerful features and it is easy to implement more of them. The current code is just a demo and it has still quite a lot to do before publishing it. E.g.:

- Putting slack_bot.py messages into JSON file for easier implementing of new features and to clean up the code.
- Using "show" command should be easier. Current way serves only demo purposes.

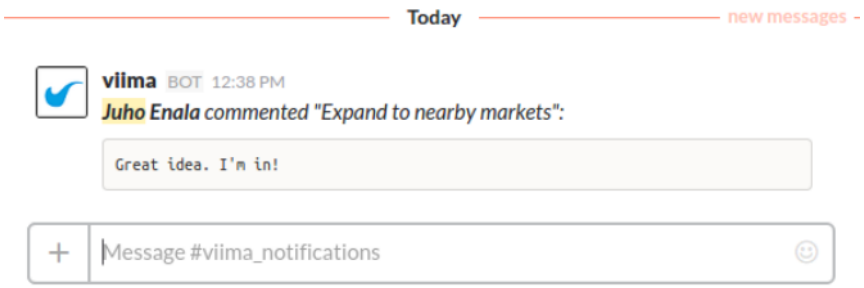
- Adding more relevant data to "recap" command.
- More unit testing.

If I have to implement Viima Slack bot for real, I'd like to make notification engine work better. I'd like to have signal from server that notifies notification engine about new activities. I'd add also more features e.g. commenting or liking ideas straigth from the Slack using the Slack bot.

Here are some images to introduce features of the bot.



The Slack bot responds directly in personal messages. In group chats tagging bot (@viima) triggers bot.



The Slack bot notifies in #viima_notifications channel.

Experience of working this assigment was absolutely positive. The assigment was really interesting and I was enjoying planning and programming it. I had no earlier experince of Slack bots, so it was nice to learn something new.

4. Installing the Slack bot (on Ubuntu)

1. Navigate to viimabot -folder and create virtual environment for Python:

   ```
   virtualenv env
   ```

2. Activate the virtual environment:

   ```
   source env/bin/activate
   ```

3. Install requirements from requirements.txt:

   ```
   pip install requirements.txt
   ```

   In case of getting error "No matching distribution found for requirements", try:

   ```
   pip install --upgrade -r requirements.txt
   ```

4. Set your private API token as environmental variable:

   ```
   export SLACK_BOT_TOKEN='[TOKEN HERE]'
   ```

5. Run the Slack bot:

   ```
   python3 slack_bot.py
   ```