

Bot Documentation

Telegram Bot build for the *BeuthBot*-Project, with easy extensibility and customization in mind.

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Getting Started

These instructions will get you a copy of the project up and running on your local machine for development and testing purposes.

Prerequisites

You will need a current version of [_node_ & _npm_](<https://nodejs.org/en/>).

Installing

After cloning the repository, install the dependencies. You can then run the project.

```
```bash # install dependencies npm install  
serve at localhost:8000 npm start```
```

### Overview

The bot is basically a \_Node\_-\_Express\_-Backend. Incoming requests are checked and

specifically handled.

## Structure

The bot is separated into two files. `index.js` contains the fundamental logic. The bot gets created with its token and waits for incoming events. For example an incoming message. The bot then calls a handler function.

These handlers can be found in the second file, `commands.js`. This file contains the available commands as an Object. Furthermore it contains functions to determine if a message contains a command and to answer the several requests a user can make.

## Functionalities

### User Requests

The bot supports three different kinds of user requests:

- **Message**: A user sends a message to the bot. We then check if the message contains a command. Commands are declared with a prefixed `/` in \_Telegram\_. - **Callback Queries**: The bot can answer with a question, providing the user a simple interface, using a button matrix. When the user clicks one of these buttons we get a \_callback query\_. - **Inline Queries**: Users can call our bot from within another chat by prefixing the botname with an `@`. The user can then send a text to the bot, which results in an inline query. The result that the bot gives back is inserted in the chat, where the user called the bot from.

### Commands

The `commands.js`-file contains an `commands`-object. Every entry of this object is a supported command. The key is always the command string, prefixed with `/`, e.g: `/help`. The value for these keys is an object containing a description, an options object and the reference to the function that renders the answer for the specific command.

```
```js const commands = {  
  
    '/help': {  
        answer: renderHelpString,  
        description: 'Get a helpful list of all available commands and  
functionalities',  
        options: {  
            parse_mode: 'Markdown'  
        }  
    },  
    '/date': {  
        answer: (message => 'What date format do you prefer?'),  
        description: 'Get the current timestamp in a chooseable format',  
        options: {  
            parse_mode: 'Markdown'  
        }  
    }  
};
```

```

    parse_mode: 'Markdown',
    reply_markup: {
        // this initiates a callback query
        // by giving the user two buttons to answer with
        inline_keyboard: [
            [
                {
                    text: 'Zulu',
                    callback_data: JSON.stringify({
                        command: 'date',
                        payload: 'zulu'
                    })
                },
                {
                    text: 'German',
                    callback_data: JSON.stringify({
                        command: 'date',
                        payload: 'german'
                    })
                }
            ]
        ]
    }
}

} ``

```

Functions

The `commands.js`-file provides several functions. Eg. functions to check if a message contains an command and to find out if the requested command is in the `commands`-object, which means it is an supported command.

Further are functions provided to handle Messages (containing normal _Commands_), _Callback Queries_ and _Inline Queries_.

The bot has the following functionalities, that a user can request and use:

- getTimestamp: Get the timestamp of the moment the message containing this command was send.
- getFormatedTimestamp: Renders the timestamp in Zulu or German format, this is a function used to answer a _Callback Query_.
- renderHelpString: Iterates over the _commands_-object and prints all available commands and there description.
- supportedMarkdown: This function gives the User a list of supported [_Markdown_](<https://markdown.de/>) markup by Telegram.

BotFather

The [BotFather](<https://core.telegram.org/bots>) allows so configure our bot. You can just write

the `_BotFather_` with Telegram and the bot will guide you through everything. The `_BotFather_` enables you among others to change the profile picture, description and about text of your bot.

Further you can register the commands and inline queries your bot supports. This allows a cleaner user experience since the bot will then suggest commands and inline queries while the user types. So absolutely do register them!

The necessary commands are:

- `'/setcommands'` - `'/setinline'`

Further Development

New commands can simply added to the `'commands'`-object but have to follow the presented structure under [Commands](#commands).

Further Reading

- [Telegram Bot API](<https://core.telegram.org/bots/api>)

Built With

- [Node.js](<https://nodejs.org/en/>) - [Express.js](<https://expressjs.com/>) - [Node-Telegram-Bot-API](<https://github.com/yagop/node-telegram-bot-api>)

Versioning

We use [SemVer](<http://semver.org/>) for versioning. For the versions available, see the [tags on this repository](<https://github.com/T0biWan/heftigwolf-bot/tags>).

Authors

- **Tobias Klatt** - `_Initial work_` - [GitHub](<https://github.com/T0biWan/>)

See also the list of [contributors](<https://github.com/T0biWan/heftigwolf-bot/graphs/contributors>) who participated in this project.

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