

# 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](#).

### Installing

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

```
# 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 get 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 does ist contain functions to determine if a message contains a commands 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 on 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 ``/``, eg: ``/help``. The value for these keys is an object containing an description, and 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',
    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.
- `getFormattedTimestamp`: 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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