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Full Stack Developer | Software Engineering Mentor

Part 1: How to create a Telegram Bot in Python in under 10 minutes

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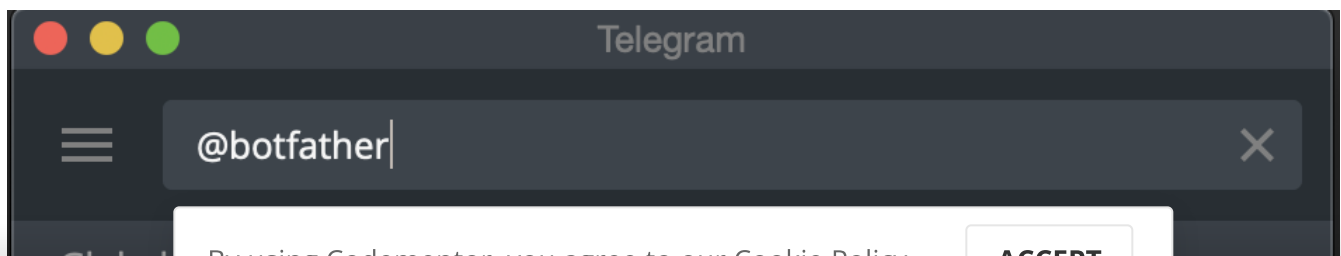
In this short tutorial, I will walk you through the steps for creating your own Telegram bot in python right from scratch.

Let us build a Telegram Bot that echoes the messages that we send to it. In the [next part](#), we will learn how to deploy the bot on websites like Heroku.

Step 1: Set up your Bot's profile

To set up a new bot, start the conversation with BotFather (@BotFather). BotFather will help us in creating the new bot.

- Search for @botfather in Telegram.

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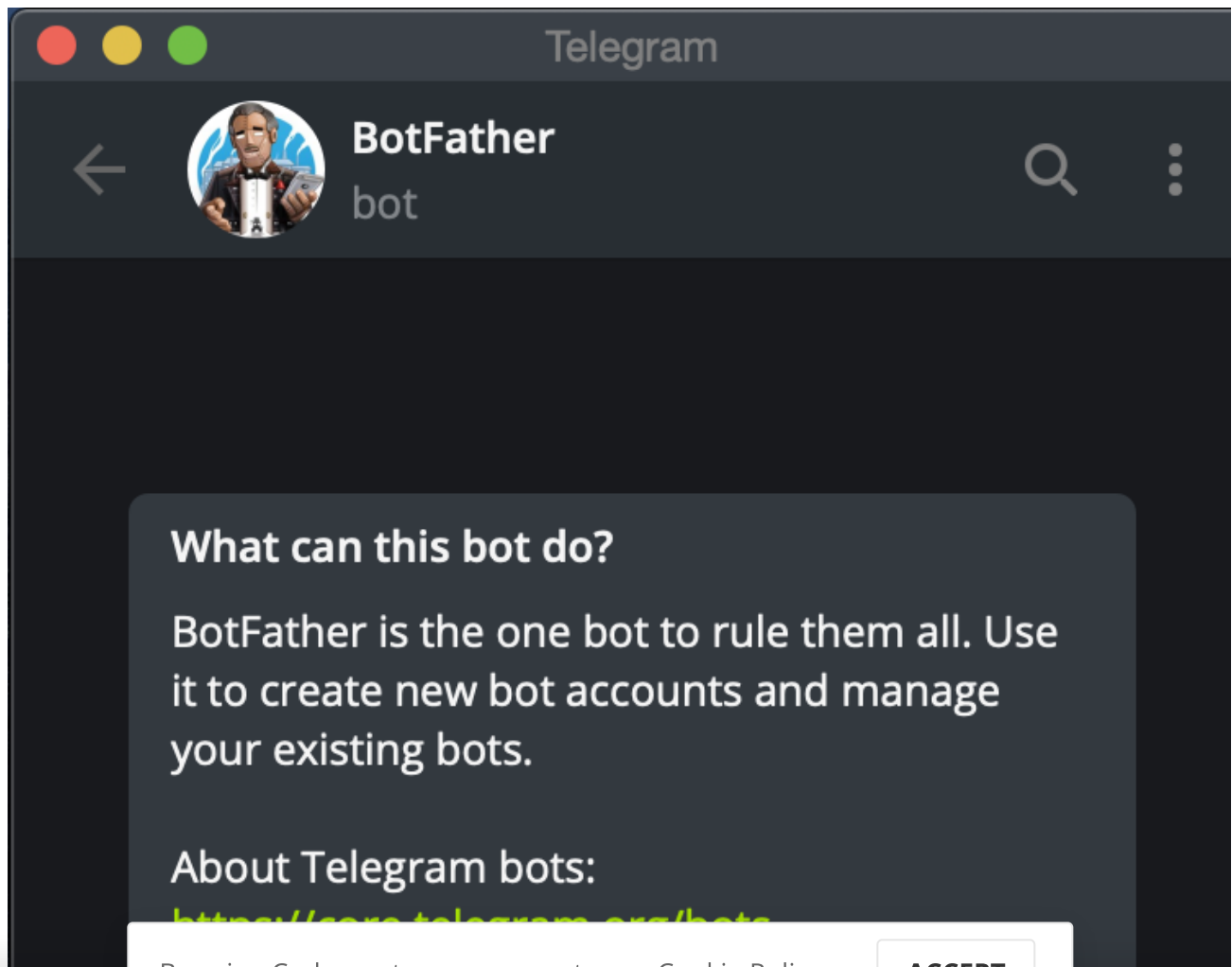
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@BotFather

- Start your conversation by pressing the Start button.



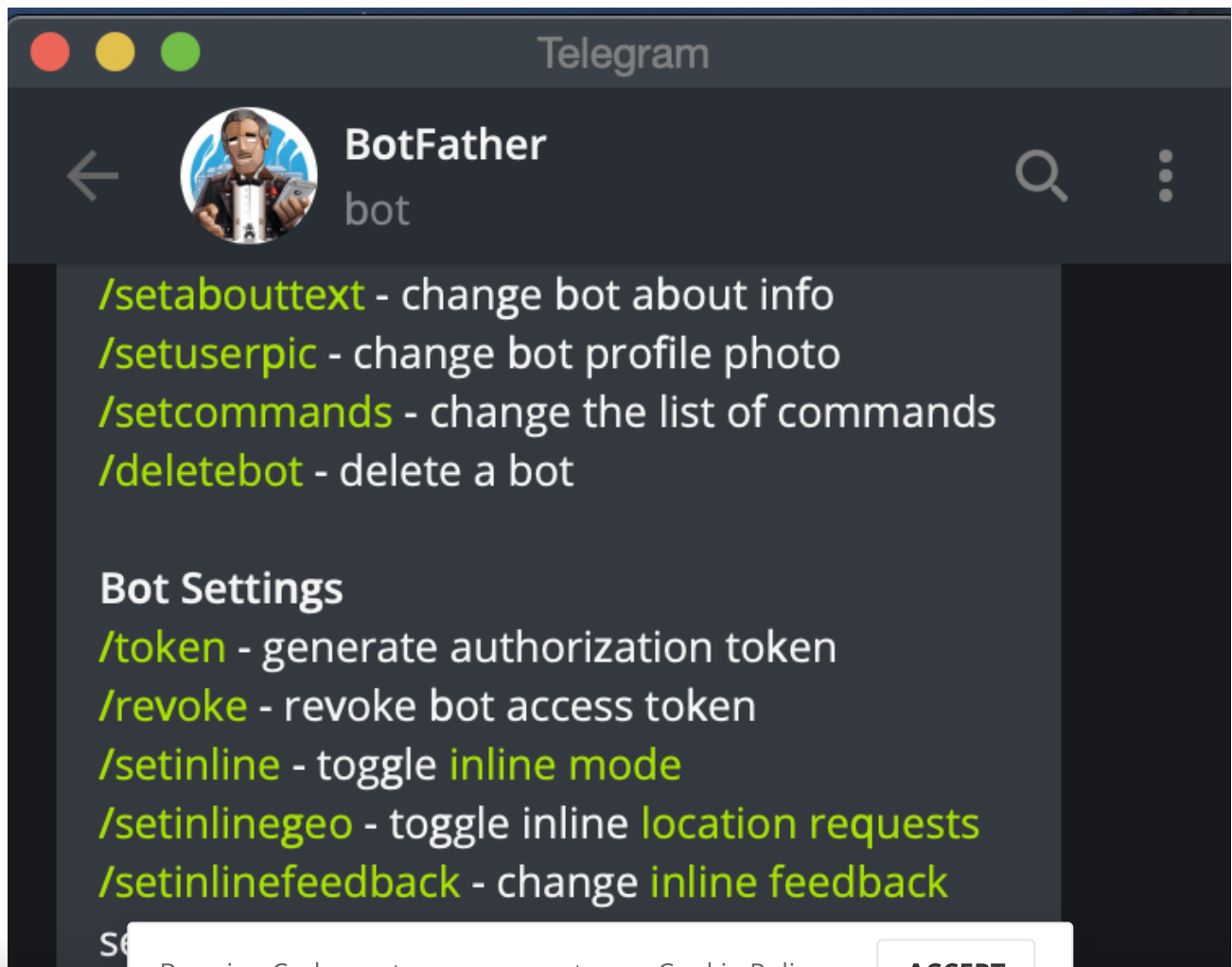
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Contact **@BotSupport** if you have questions about the Bot API.

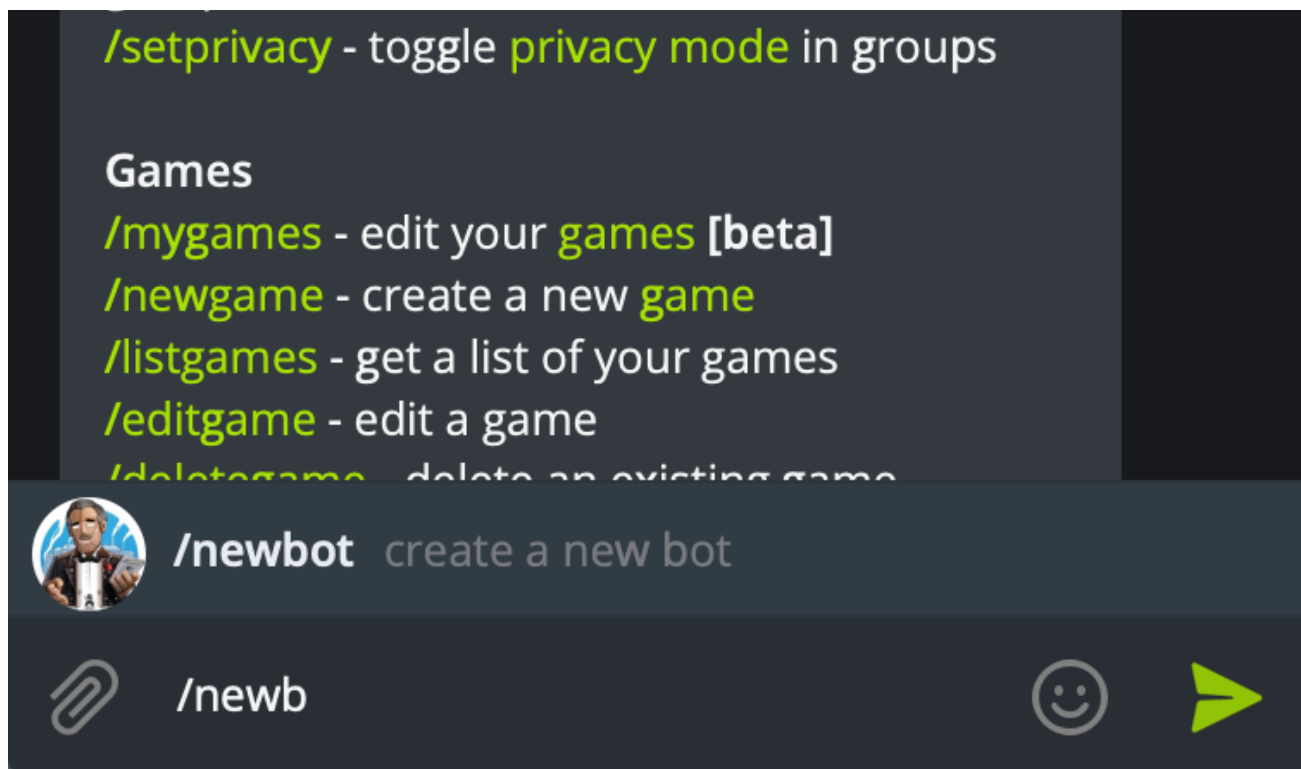
START

- Create the bot by running /newbot command

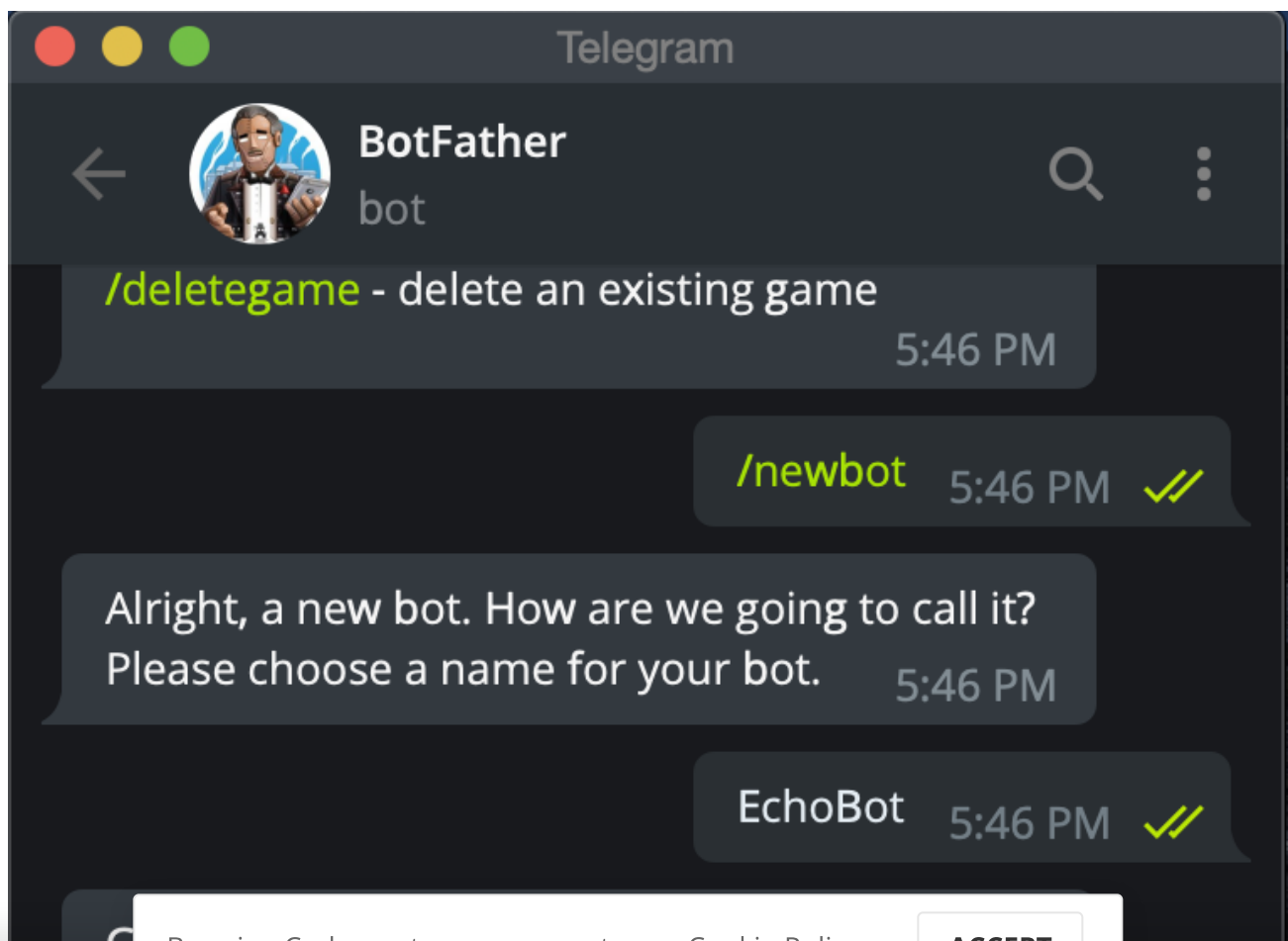


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- Enter the Display Name and User Name for the bot.



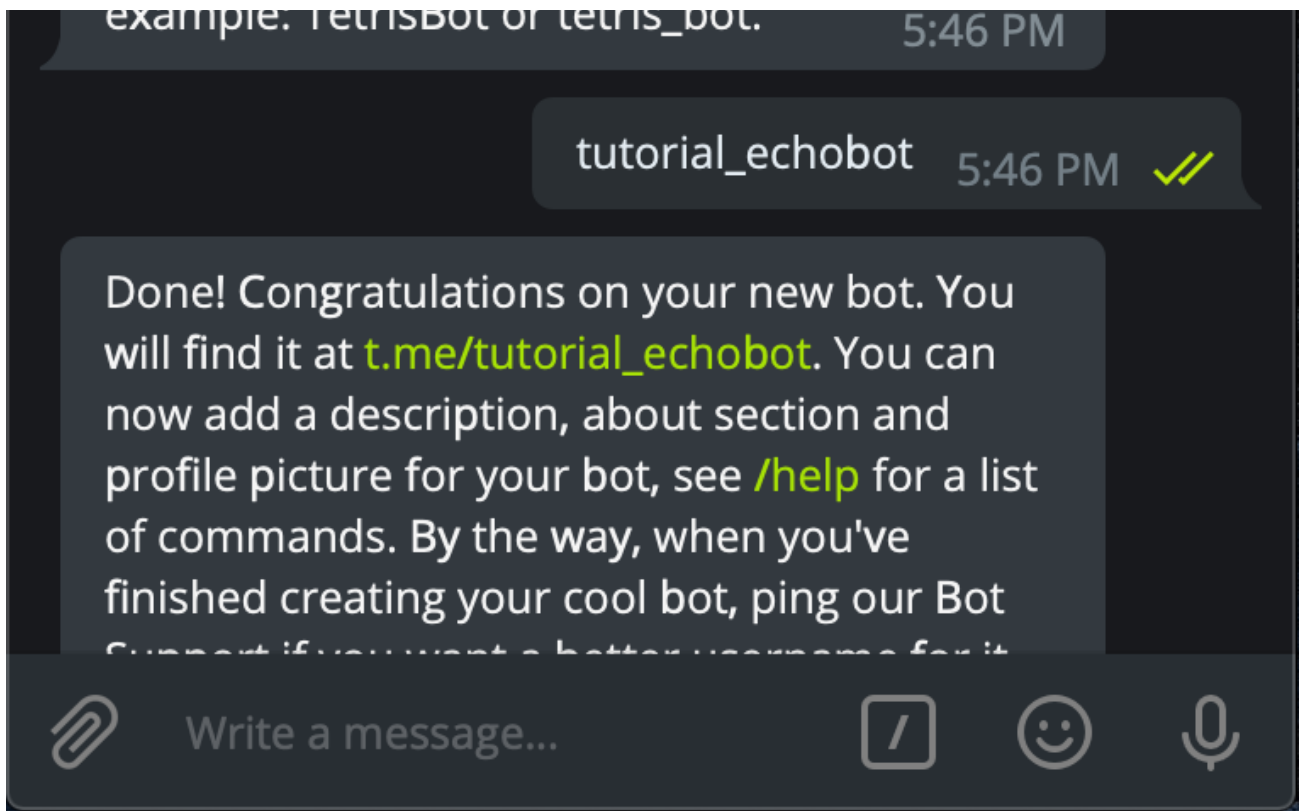
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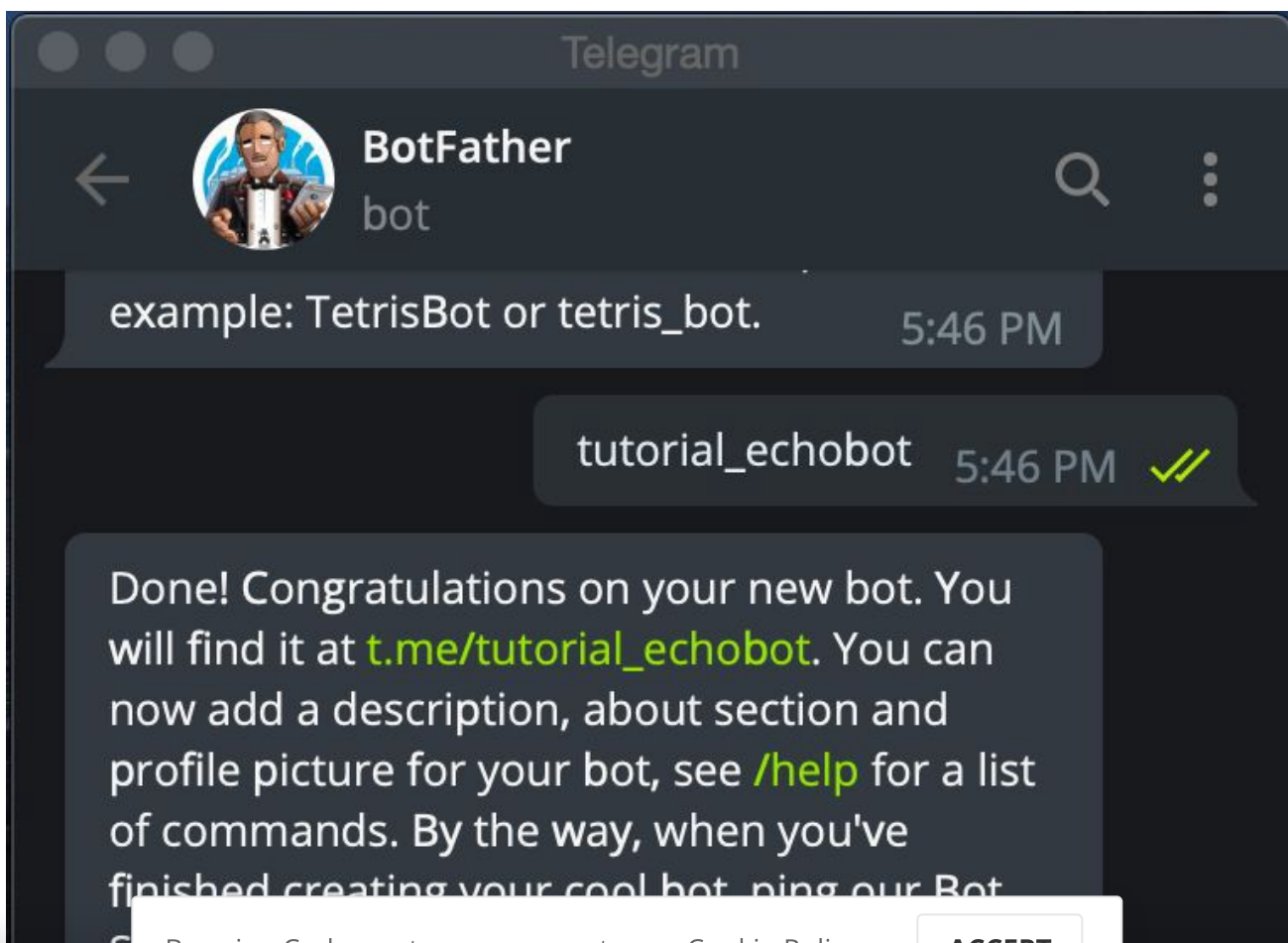


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- BotFather will send you a message with the token



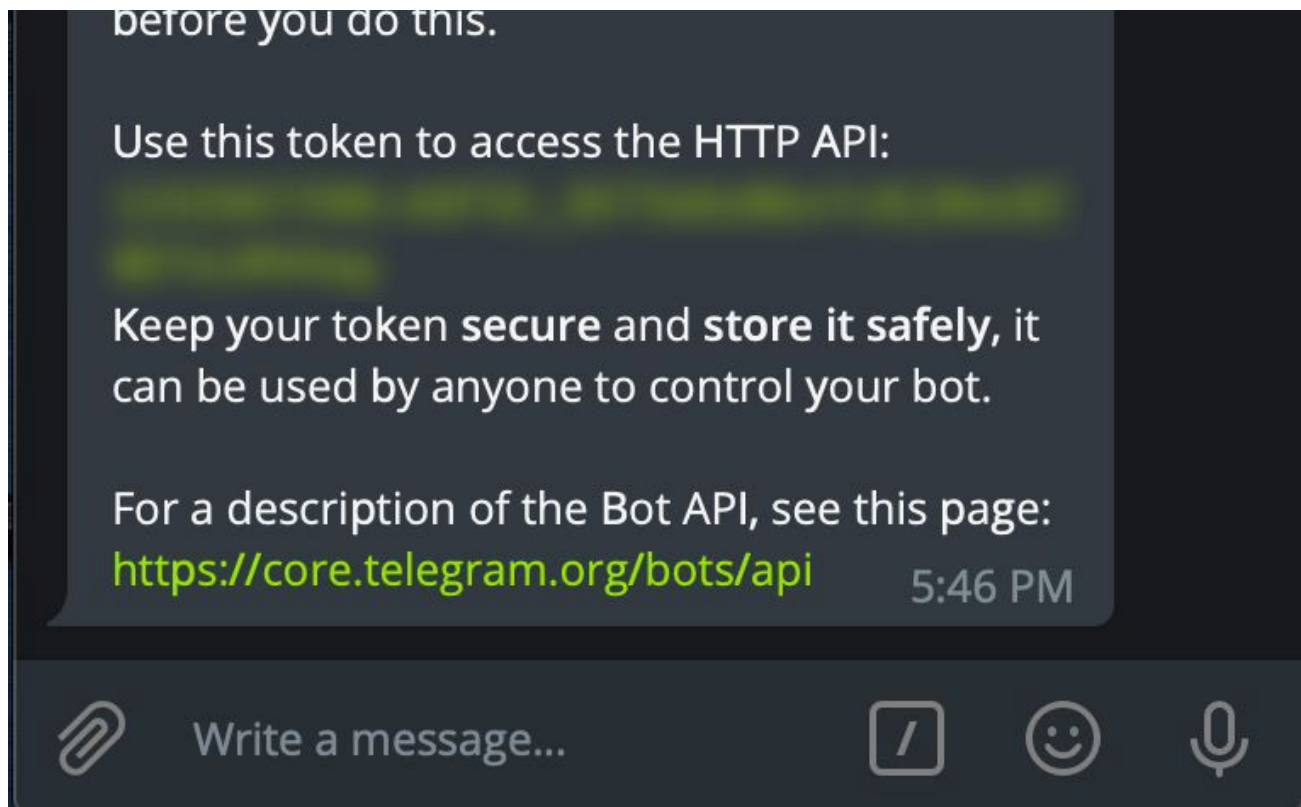
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DISCLAIMER — Keep access token of the bot securely. Anyone with your token can manipulate this bot.

Step 2: Coding the bot

Open up the terminal and start by creating a new directory first.

```
mkdir echo-bot/  
cd echo-bot/
```

We will be using pipenv virtual environment. Make sure that you have pipenv installed in your system.

Pipenv is a dependency manager for Python projects.

We will be using [python-telegram-bot package](#) for interacting with Telegram API. Install the package using the following command

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Create a new file bot.py and paste the following code in it.

```
#!/usr/bin/env python
# -*- coding: utf-8 -*-
# This program is dedicated to the public domain under the CC0 license.

"""
Simple Bot to reply to Telegram messages.

First, a few handler functions are defined. Then, those functions are passed to the Dispatcher and registered at their respective places.
Then, the bot is started and runs until we press Ctrl-C on the command line

Usage:
Basic Echobot example, repeats messages.
Press Ctrl-C on the command line or send a signal to the process to stop the bot.
"""

import logging

from telegram.ext import Updater, CommandHandler, MessageHandler, Filters

# Enable logging
logging.basicConfig(format='%(asctime)s - %(name)s - %(levelname)s - %(message)s',
                    level=logging.INFO)

logger = logging.getLogger(__name__)

# Define a few command handlers. These usually take the two arguments update and context. Error handlers also receive the raised TelegramError object in error_callback
def start(update, context):
    """Send a message when the command /start is issued."""
    update.message.reply_text('Hi!')
```

def help(

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```
def echo(update, context):
    """Echo the user message."""
    update.message.reply_text(update.message.text)

def error(update, context):
    """Log Errors caused by Updates."""
    logger.warning('Update "%s" caused error "%s"', update, context.error)

def main():
    """Start the bot."""
    # Create the Updater and pass it your bot's token.
    # Make sure to set use_context=True to use the new context based callba
    # Post version 12 this will no longer be necessary
    updater = Updater("TOKEN", use_context=True)

    # Get the dispatcher to register handlers
    dp = updater.dispatcher

    # on different commands - answer in Telegram
    dp.add_handler(CommandHandler("start", start))
    dp.add_handler(CommandHandler("help", help))

    # on noncommand i.e message - echo the message on Telegram
    dp.add_handler(MessageHandler(Filters.text, echo))

    # log all errors
    dp.add_error_handler(error)

    # Start the Bot
    updater.start_polling()

    # Run the bot until you press Ctrl-C or the process receives SIGINT,
    # SIGTERM or SIGABRT. This should be used most of the time, since
    # start_polling() is non-blocking and will stop the bot gracefully.
    updater.idle()
```

```
if __name__ == '__main__':
    main()
```

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Replace "TOKEN" on line 56 with the token that you got from the BotFather earlier.

This code uses polling approach to check for messages and will reply to every message it receives with the same message. You can read more about how python-telegram-bot works here - [Coding your first bot](#)

Run the bot using

```
pipenv run python bot.py
```

Voilà! We're done 😊

I bet this would have taken you less than 10 minutes to get started with your first bot.

See the 🤖 in action

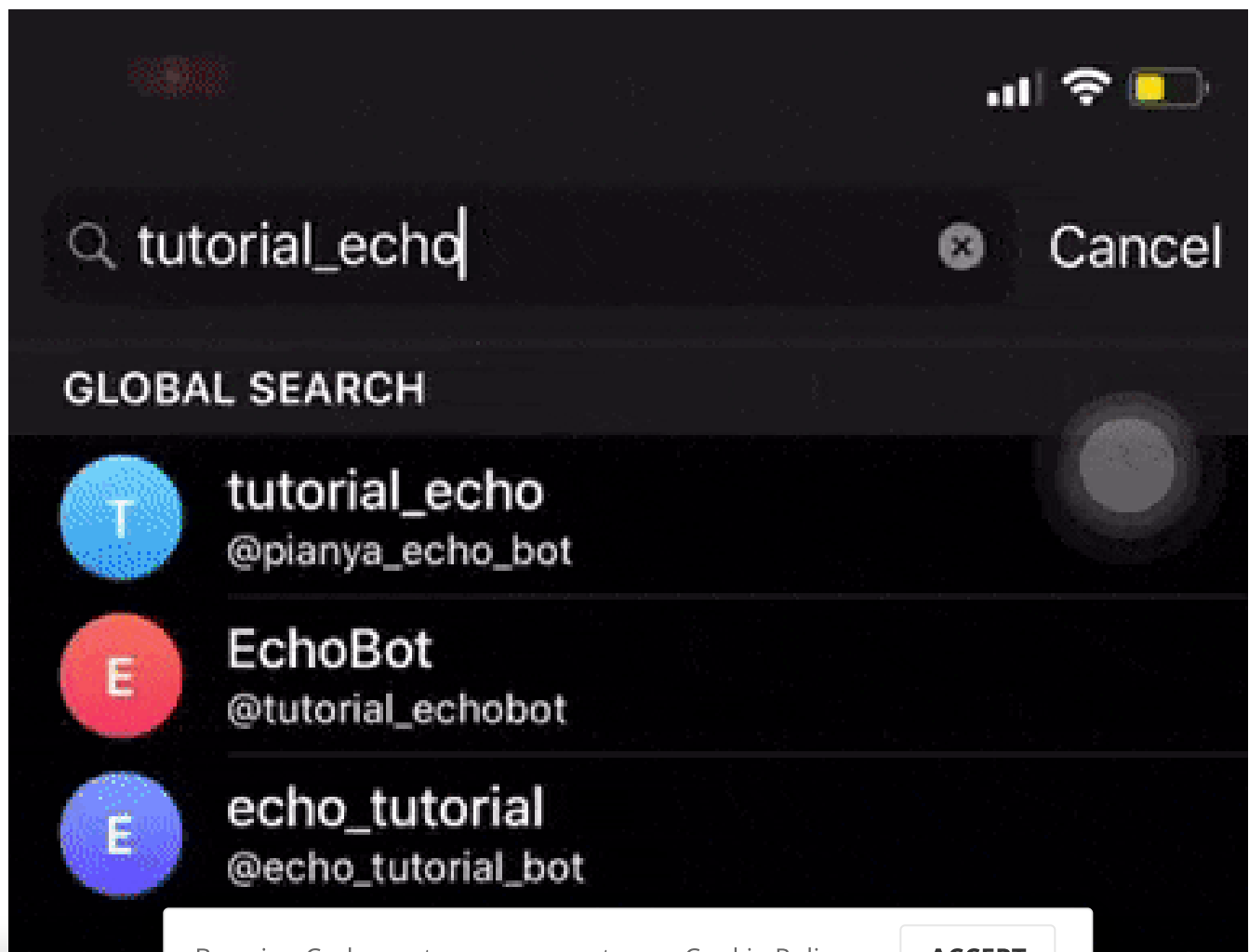


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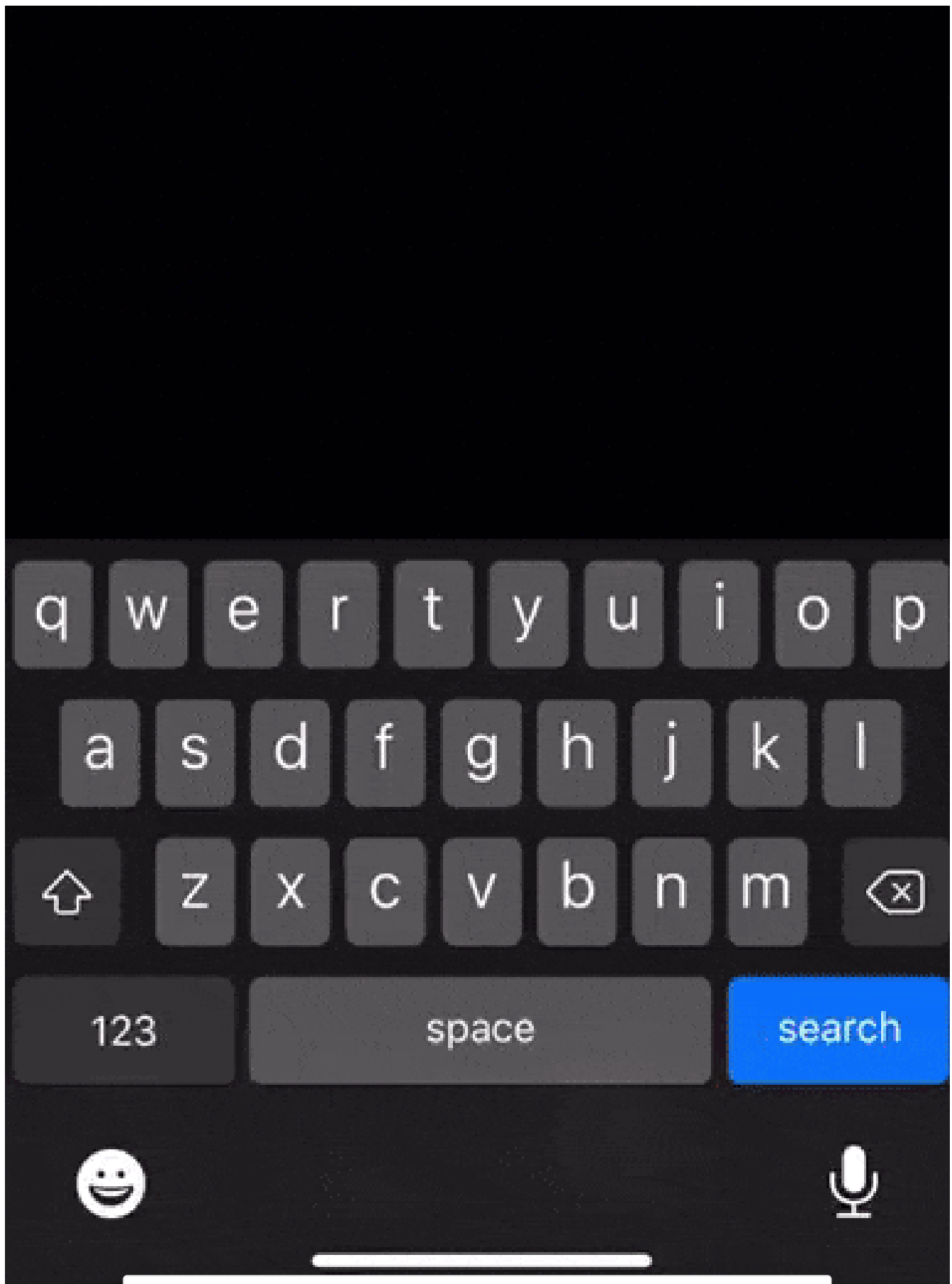
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- [BookQuoteBot](#) 📖: Read the best quotes from famous books.
- [SplitwiseBot](#): Uses Splitwise API to list, create and settle the expenses all within Telegram.

Part 2 - Deploying Telegram Bot for FREE on Heroku

Telegram bot

Python

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Karan Batra

Full Stack Developer | Software Engineering Mentor

I have more than 6+ years of programming experience. I'm proficient in **C, C++, JAVA, and Python**. Along with this, I'm an active competitive programmer and have solved more than 800 problems on different coding websites. I ha...

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balasarathi a year ago

In which app I code like it

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Kabiru O. Tihamiyu a year ago

Nice but I got this error:

Traceback (most recent call last):

File "`bot.py`", line 20, in <module>

from telegram.ext import Updater, CommandHandler, MessageHandler, Filters

ModuleNotFoundError: No module named 'telegram'

♡ Reply

Kabiru O. Tihamiyu a year ago

Never mind, I've fixed it.

♡ 2 Reply

Oscar Agyei 7 months ago

How did you fixed it, I am having the same error

♡ Reply

lht99 7 months ago

Don't run direct `bot.py` in cmd.

You should run the following commands:

`pip install python-telegram-bot --upgrade`

Then you should run `bot.py` by this command:

`python bot.py`

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