

IT DevCon

European Delphi Conference

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Create Your Bot with Delphi

Crea il tuo Bot con Delphi



Who am I?

About me

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You might find interesting...

Delphi Succinctly

Learn the fundamentals of Delphi to build a variety of solutions for many devices and platforms in about 100 pages.

Find more here:

👉 <http://bit.ly/delphi-succinctly>



You might find interesting...

Delphi Podcast

*The first Italian podcast
about Delphi.*

Listen here:

👉 <http://www.delhipodcast.com>

and also **take part in it!**



Smile (if you can) here:



Bots!

An introduction to Bots

What is a Bot?

A «(Ro)bot» is a software application that runs automated tasks over the Internet.

Typically, bots perform tasks that are both simple and structurally repetitive, at a much higher rate than would be possible for a human alone.



Bot Purposes

- Communicate with other users (that's our case 👍)
 - *Instant Messaging and IRC*
 - *Social Bots*
 - *Telegram Bots*
- Commercial Purposes
 - *Auctions and Bets (eBay, Betfair, ...)*
 - *Application and Content Stores (Apple Store, Google Play, YouTube ...)*
- Malicious Purposes
 - *Spam bots*
 - *DDos attacker*
- Gaming
 - *MMORPG*

What you can do

- Get customized notification and news
- Integrate your messaging experience with external services
- Create your own custom service
- Create games (NEW! in Telegram Bots)
- Smart newspapers
- Weather forecast
- Local news or events
- Track shipping
- Translate content on-the-fly
- Import photos, videos and content
- Build a knowledge base
- Get cool! 😎

What you can do



Tecnologia

Home

News

Speciali

Mobile

Social Network

Sicurezza

Prodotti

Interattivi

Video



100



Mya, a farti il colloquio di lavoro è un chatbot



Mya BOT
Jul 6, 2016

Unfortunately, you're missing a required skill for this position. Your application is still under consideration, so if you're still interested, this is a great time to make a case for why you'd be a great fit anyway.



Jessica Smith
Jul 6, 2016

Nasa is literally my dream job. I've wanted to work at Nasa since I was in the 3rd grade... I know I don't have the minimum experience requirement, but I will make up for it with my passion for the role.

Una schermata della chat con Mya

Il servizio di risposta automatizza il 75% del recruitment agevolando il compito ai manager. Così l'intelligenza artificiale ci viene in soccorso anche nel campo dell'occupazione

Why Chat Bots?

- Bots are a lot easier to install than mobile apps
- Bots are easily distributed
- Quality mobile apps are expensive to build, maintain and deploy
- You don't have to deal with security aspects
- Moving complexity to the cloud reduces a user's cognitive load

***NLP** is the ability of a computer program to understand human speech as it is written or spoken.*

- It makes computer to perform useful tasks with the natural languages humans use
- It is based on machine learning
- Supports both speech and text

But we will not deal with NLP in this speech.

Platforms and Frameworks

Just to name a few...

- Microsoft Bot Framework
- Telegram API/SDK
- Facebook Messenger Bots
- Google Allo (?)

Telegram

Get to know Telegram

What is Telegram?

Telegram is a cloud-based instant messaging (IM) service.

Users can send and exchange

- Simple messages
- Photos and videos
- Stickers
- Virtually any type of file
- Supports (custom) encrypted (E2E) messaging
- Cloud Based Architecture
- Native app for every platform, including Web
- Client-side code is open-source
- Server-side code is proprietary and closed-source

Telegram supports a wide range of devices and operating systems.

- Web
- Windows
- Android
- iOS
- Windows Phone
- OSX
- Linux
- Ubuntu Touch

Telegram Facts

- 100 million Monthly Active Users
- 350 K of signups per day
- 15 billion daily message sent
- Has proven to be quite robust
- Has a good Bot platform!

- Release in June 2015:
recent but powerful!
- Updated just some day ago
(added Game support)
- Open to everyone without
barriers
- No approval process required
- Allows 1-1 conversations
- Can be added to groups
and channels
- Can be invoked "on the fly"
(inline bots)

Difference with humans

- No online status and no last seen timestamps
- Can't initiate conversation with users
- Username always ends in "bot"
- When added to a group, bots do not receive all messages by default
- Bots never eat, sleep or complain (unless expressly programmed otherwise)

Let's see some sample

Comune di Reggio Emilia BOT (@ComuneREbot)

<https://telegram.me/ComuneREbot>

Nice Bots:

- **TrackBot** (<https://botfactory.info/trackbot/>)
- **Giphy Bot** (<https://telegram.me/gif>)
- **TerremotiBot** (<https://botfactory.info/terremotibot/>)
- **CinemasBot** (<https://telegram.me/cinemasbot>)

Want more?

<http://botsfortelegram.com/>

Create a Bot

Let's create a Bot with Telegram

How do bots work?

- Send **messages and commands** to bots by opening a chat with them or by adding them to groups.
- Send **requests directly from the input field** by typing the bot's @username and a query (inline bots)
- Messages, commands and requests sent by users are passed to the software running on Telegram servers.
- Telegram servers handles all encryption and communication with the Telegram API for you.
- You communicate with this server via a simple HTTPS-interface that offers a simplified version of the Telegram API: the **Bot API**.

Create a new Bot



BotFather is the one bot to rule them all.

It will help you create new bots and change settings for existing ones.

«One Bot to rule them all, One Bot to find them

One Bot to bring them all and in the darkness bind them»

-- *The Lord of the Bots, J.R.R. Tolkien*

Bot API

- The Bot API is an **HTTP-based api**
- It supports GET and POST requests

Making Requests

- All queries must be served over HTTPS and in this form:
https://api.telegram.org/bot<token>/METHOD_NAME
- All queries must be made using UTF-8
- All methods are case-insensitive
- The response is a JSON object which:
 - always has an 'ok' boolean field.
 - has a 'result' field if the response is ok.
 - may have an optional 'description' field which contains some info about the occurred error
 - also has a 'error_code' in the case of errors.

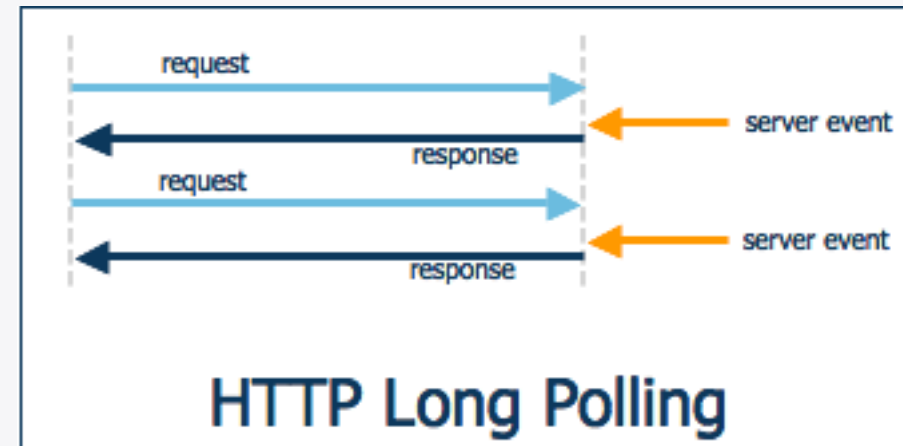
Let's test it!

How to get updates?

Call the method name:
getUpdates()

You can use

- ~~Continuous Polling~~
- **Long Polling technique**
(easy, but slightly inefficient and resource consumer)
- **Webhooks**
(better, but more complex)



Let's see some code



Questions?

Don't be afraid
of asking...



Thanks!

