

Building Automated Business Workflows

Turning data collection into an experience.

Online Forms and Custom Integration into your business process.

Zach Lewis – ZALME LLC

- Experienced Professional – 30+ yrs,
IBM, Bell Labs, HP/HPE/MicroFocus, Nationwide Insurance, SAIC, Unisys, and more.
- Knowledge Management/Decision Support
- Tech Consulting/Training – one on one and groups.
- Business Marketing/Process Transformation
- Facebook Developer Circle Lead
- Cyber Security Consultant
- And More – Web Development, Software Development, System Design, etc..

Hello
My Name Is

Tell us About Your Self



- What is your Name
- What Business or Organization do you work with ?
- Why did you come ?
- What do you expect to learn ?
- What was your first computer ?
- What is your favorite food ?

digital



IBM

COMPAQ



Microsoft

DELL



CompuServe



NCSA
HTTPd

Marc Andreessen
Robert Martin McCool
James H. Clark
James Love Barksdale
Al Gore – Sponsored Bill

The internet changed the World ! Too Much Information

Disney

SAMSUNG



amazon

YAHOO!

P&G
Procter&Gamble

Walmart

facebook

Instagram

AP
CNN

Uber

airbnb

ebay

Etsy

twitter

salesforce



Google

YouTube

Our mission is to **organize** the world's **information** and make it **universally accessible** and **useful**.

We have more Information then we can respond to everyday.
This includes your customers and business partners.



Potential Benefits Automating Action and Response

1. Speed up Response Time
2. Support more customers
3. Integrate into an existing system or business process
4. Share Selected information with external partners
5. Enhance Collaboration by providing only the information needed to various roles in a business process. Reduce information overload.

Question:

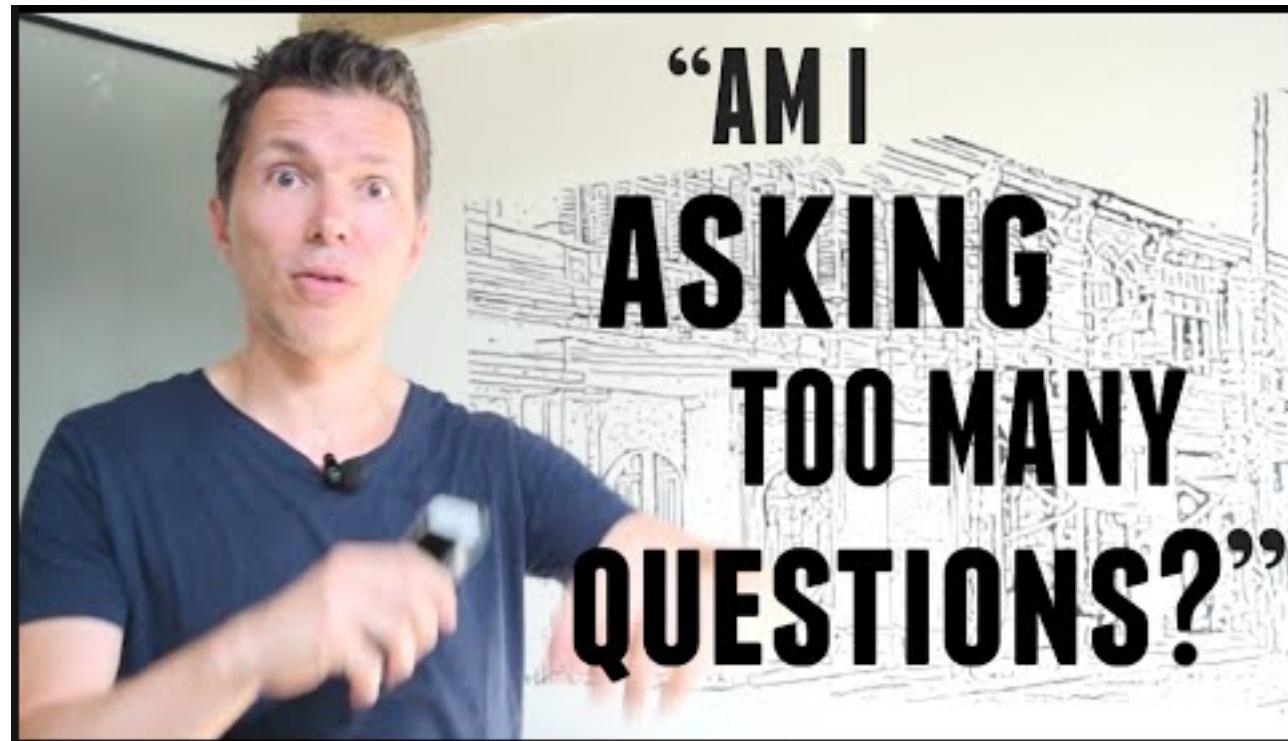
How many of you like to wait for a response to a request or proposal ?



Still Waiting

Question:

How many times have you had to ask too many follow-up question for a business process or request for information ?



**THERE'S GOT TO BE A
BETTER**

WAY TO DO THAT

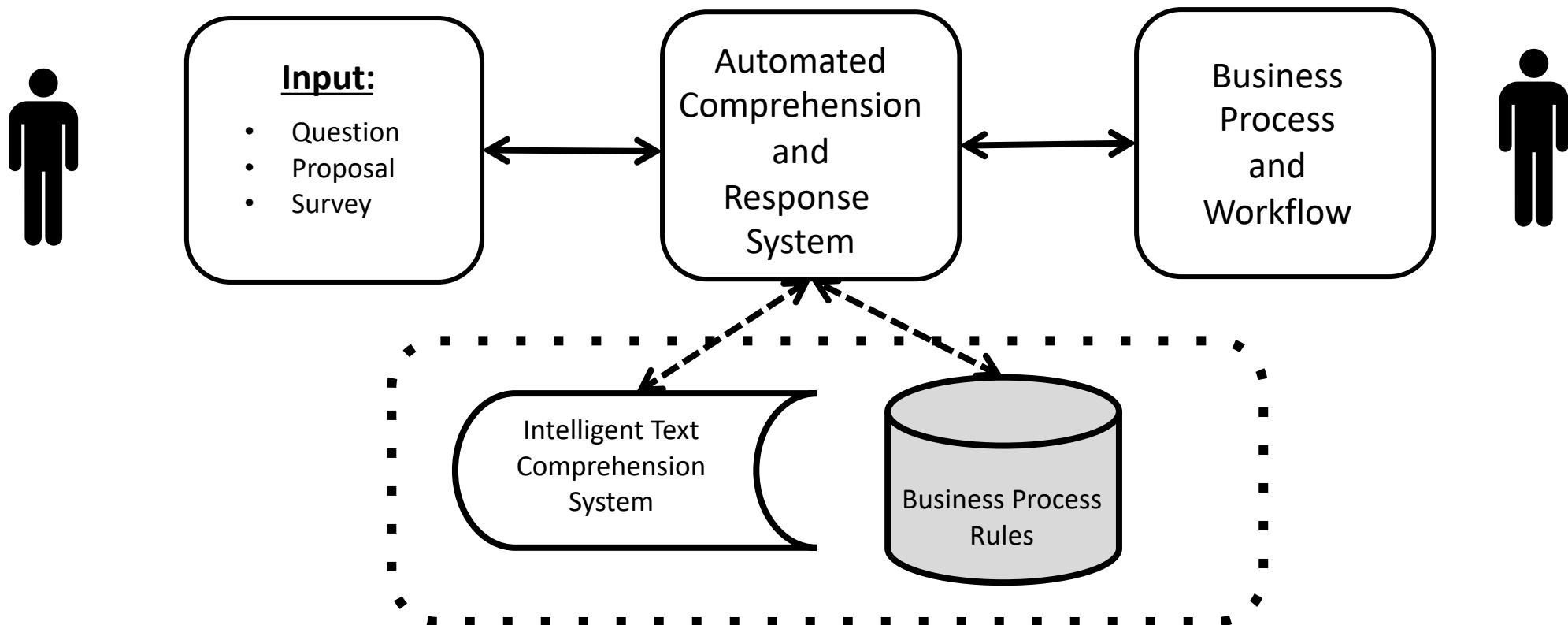
memegenerator.net

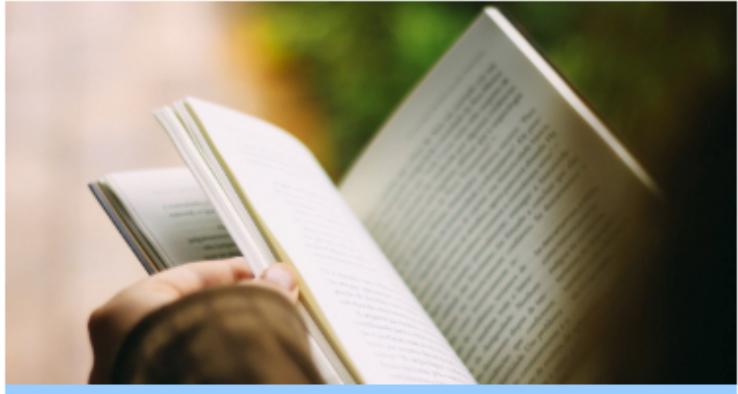
Automating Knowledge Management



Automated Survey/Text Response System

Decision Support and Business Workflow Support System





ARTIFICIAL INTELLIGENCE

Machines Just Beat Humans on a Stanford Reading Comprehension Test

Al's developed by Alibaba and Microsoft both outscored human participants.

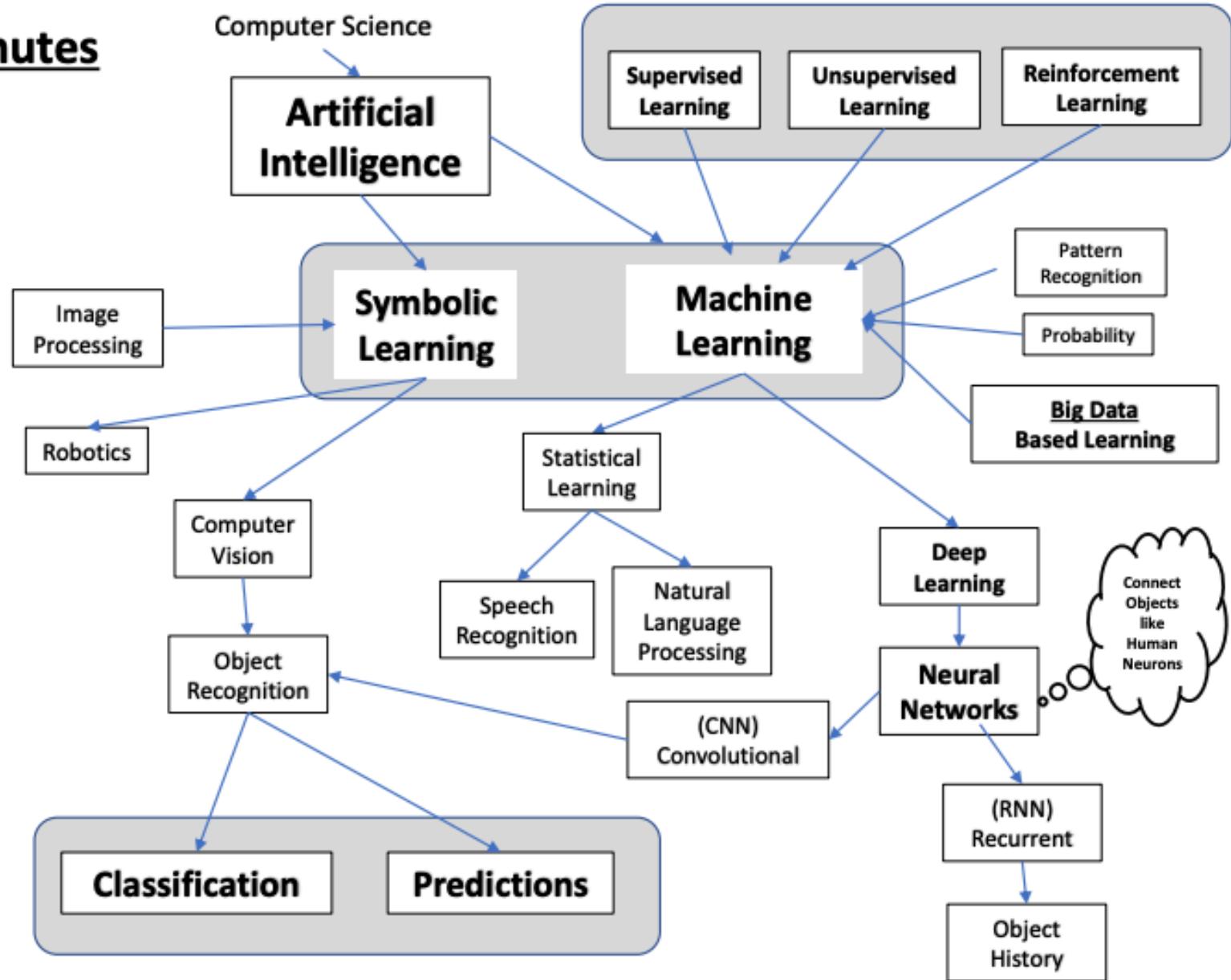
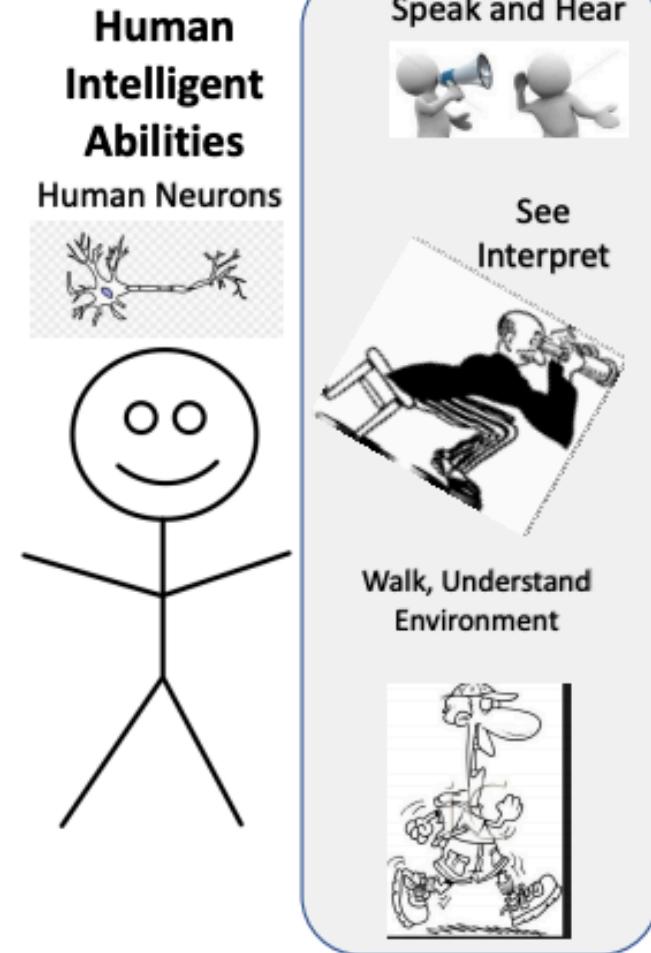
Information is not Knowledge

Data is not valuable by itself.

You must understand it and apply it in a productive way.

Automating the process of understanding and acting on the information received is the Goal

Artificial Intelligence in 10 minutes



Information is not Valuable, The Application of Information Matters

Why is Google, Amazon and Facebook So Valuable ?

Why have companies that make a physical product become less valuable ?



What do they Make ?

What is the materials that they use
to build their products ?

Do they need any physical items, like Wood,
Steel, Hammers, Nails, etc ???



Intelligent Surveys Can Make A Difference

Many Options: - We will focus on TypeForm.

<https://www.google.com/forms>



DEXTER



Voice Bots



qualtrics.^{XM}



Typeform.com

How you ask
is everything.

Forms & surveys for
the people

The most important online interaction
for a business is the exchange of
information. Don't leave it to chance.

<https://www.typeform.com>

What data collect and you collect matters .

Think about your goal.

Flawed data can guide even the greatest leaders to the wrong conclusions.

When success hangs in the balance, you need to be absolutely sure that you're gathering the right data with the right methods.

<https://www.typeform.com>

Log in Sign up

Forms & surveys for the people

The most important online interaction
for a business is the exchange of
information. Don't leave it to chance.

Sign up free See examples

How to personalize your marketing with [Typeform + Mailchimp](#)



Typeform Simple Sharing Options

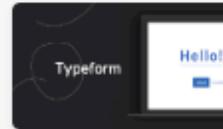
Share your typeform

<https://zacharylewis.typeform.com/to/CpcT4q>

Copy



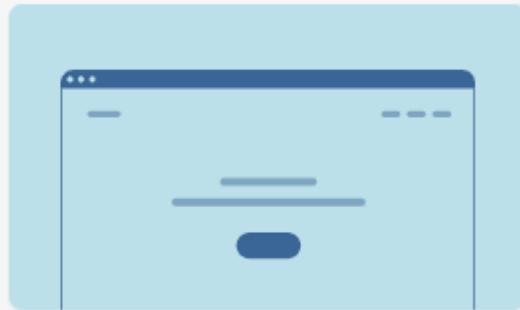
Meta preview



MgmWerks

Turn data collection into an experience with Typeform. Create beautiful online forms, surveys, quizzes, and so much more. Try i...

More ways to share



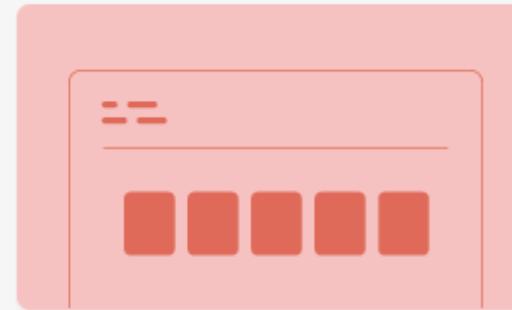
Embed into a web page

Show your typeform on a web page. Choose from three different styles.



Strike up a conversation NEW

Engage people on any web page with a chatbot-style conversation



Include in an email

Invite people to answer your first question straight from an email

WordPress Plugin

The screenshot shows the WordPress.org Plugins page. At the top, there's a navigation bar with links for Showcase, Themes, Plugins (which is highlighted in blue), Mobile, Support, Get Involved, About, Blog, and Hosting. To the right of the navigation are buttons for Register, Log In, and a search icon. Below the navigation is a search bar with the placeholder "Search WordPress.org". A large blue header bar spans across the page with the word "Plugins" on the left, "My Favorites", "Beta Testing", and "Developers" in the middle, and a search bar with the placeholder "Search plugins" on the right. The main content area features a large image of a Typeform interface with various survey questions and a "Powered by Typeform" watermark. To the right of the image, the text "Get conversational" is displayed, followed by the subtext "Your personality. Our interface. Get to know your audience, one person at a time." At the bottom left, there's a dark square icon with a white letter "T" inside. Next to it, the text "Typeform | Engage your audience with beautiful forms, surveys, and quizzes" is written, followed by "By Typeform" and a "Download" button.

Register Log In

WORDPRESS.ORG

Showcase Themes **Plugins** Mobile Support Get Involved About Blog Hosting

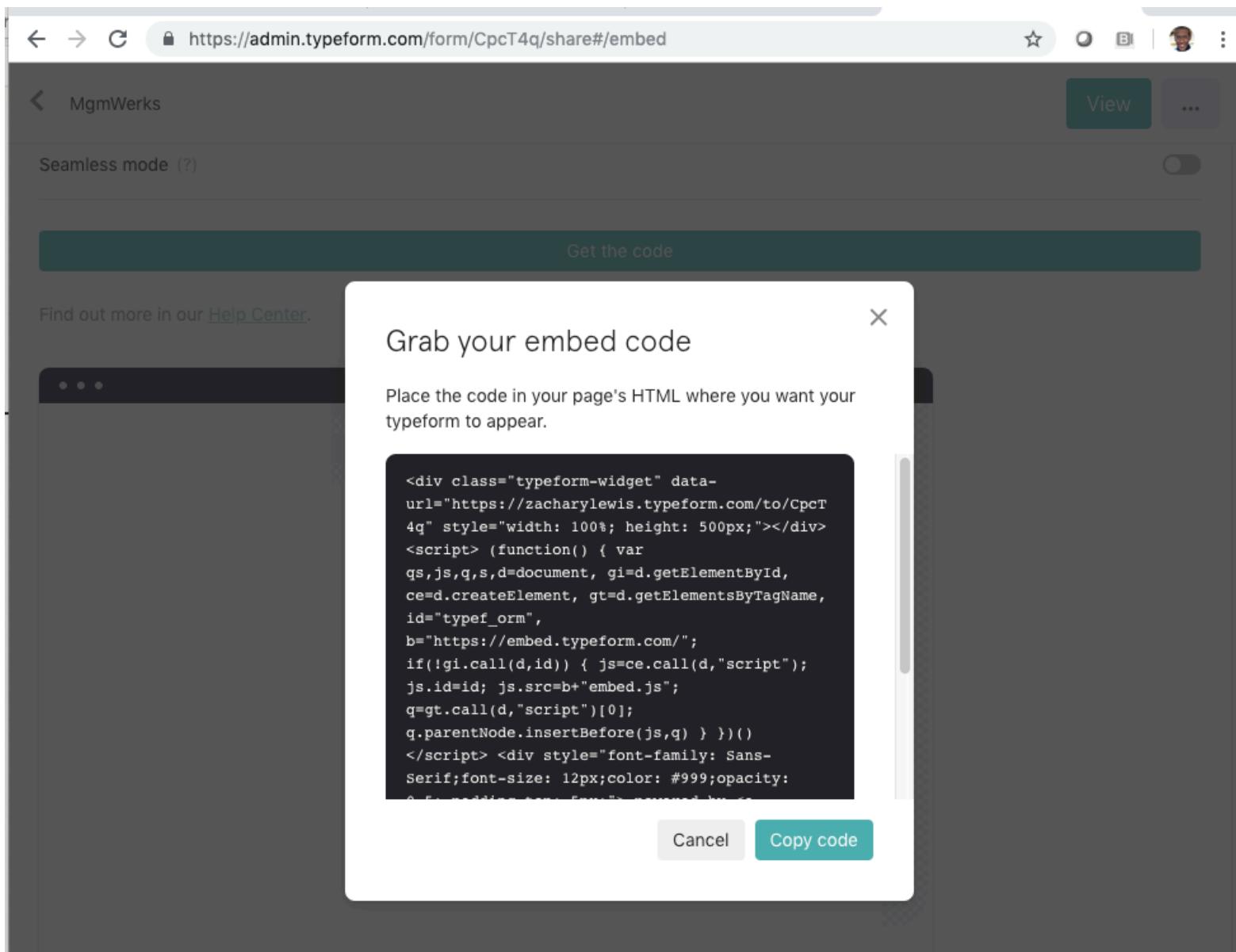
Plugins My Favorites Beta Testing Developers

Get conversational

Your personality. Our interface.
Get to know your audience, one person at a time.

Typeform | Engage your audience with beautiful forms, surveys, and quizzes
By Typeform

TypeForm Copy Embed HTML



WordPress Embed HTML

← → ⌂ https://wordpress.com/block-editor/page/zalmellctraining.wordpress.com/2

Switch to Draft Preview Update ⚙ ⚡ ⋮

Home

```
<p style="text-align:center;">
<a class="typeform-share button" style="display:inline-block;text-decoration:none;background-color:#267DDD;color:white;cursor:pointer;font-family:Helvetica, Arial, sans-serif;font-size:20px;line-height:50px;text-align:center;margin:0;height:50px;padding:0 33px;border-radius:25px;max-width:100%;white-space:nowrap;overflow:hidden;text-overflow:ellipsis;font-weight:bold;-webkit-font-smoothing:antialiased;-moz-osx-font-smoothing:grayscale;" href="https://zacharylewis.typeform.com/to/CpcT4q" target="_blank">Typeform Demo Survey</a>    </p>
```

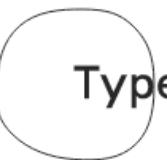
WordPress Webpage Button from Embedded HTML

The screenshot shows a WordPress website interface. At the top, there's a browser header with navigation icons, a lock symbol indicating https://, and the URL https://zalmellctraining.wordpress.com. Below the header is a dark navigation bar with a 'My Site' link, a 'Reader' link, and a 'Write' button. The main content area features a large, bold, black heading 'ZALME LLC Training Demo'. In the center of the page is a blue rounded rectangular button with white text that reads 'Typeform Demo Survey'. A thin horizontal line is positioned below the button. At the bottom of the page, there's a dark footer section with the word 'Contact' in white.

ZALME LLC Training Demo

Typeform Demo Survey

Contact



Typeform

Get better data with conversational forms, surveys, quizzes & more.

Name

Bruce Wayne

Email

bruce@wayne.com

Password

At least 6 characters

I agree to Typeform's
[Terms of Service](#) & [Privacy Policy](#)

I'd like to get useful tips,
inspiration, and offers via email (you
can unsubscribe at any time).

Create my free account

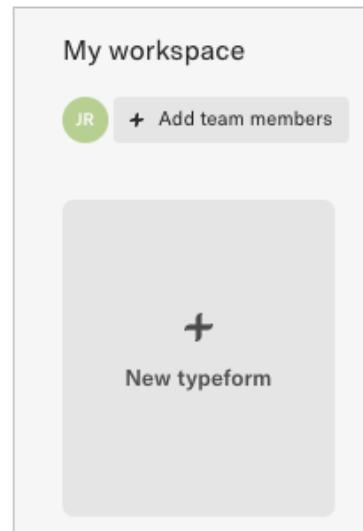
Create → My first typeform

My first typeform

Welcome to Typeform! It's an easy-to-use tool for collecting data, feedback, and more. We want to make data collection as easy and conversational as possible – this article shows you the basics.

1. First up, you'll need a free Typeform account. Here's how to set one up.

2. Log in to your account, and you'll land in your Workspace. We're going to build a typeform from scratch. Hit the **New typeform** button:



[CREATE](#)[CONNECT](#)[SHARE](#)[RESULTS](#)[Integrations](#)[Webhooks](#)

Connect Typeform to your favorite apps

Integrate with hundreds of apps to create workflows that work for you. Now you can spend more time walking Kobe, your pet lizard.

[Automation](#) [Connect](#)**Automate.io**

Instantly send typeform responses to 100+ popular apps like Salesforce, Trello, and Zendesk—to name just a few.

**Zapier**

Our integration with Zapier helps you easily push data you collect on Typeform to over 500 services

← → C https://automate.io

automate.io WE'RE HIRING App Integrations Pricing Blog Login Signup

Automate Work

Marketing



Send automated emails, run drip campaigns. Automate social and mobile messages, run smart twitter campaigns.

Sales



Streamline sales process, automate follow-ups, assign tasks, track and score leads. Put your CRM on steroids.

E-commerce



Sync orders and payments to your invoicing app. Automatically create and send invoices, track payment and send reminders.

Internal Processes



Setup cross-functional workflows in minutes. Automate any business processes across apps. Get things done faster.

TypeForm My WebHooks Demo

INTEGRATIONS WEBHOOKS

Webhooks

Notify external services when someone completes your typeform. Learn more about webhooks [here](#).

Add a webhook

 <http://50.63.164.2:9999/> Webhook ON View deliveries Edit

 <https://wh.automate.io/webhook/5d1cd690a40fa506...> Webhook ON View deliveries Edit

TypeForm My WebHooks Automate.io Demo

Your Free trial will end in 7 days. [Choose a plan](#) ⓘ

 [BOTS](#) [ACTIVITY](#) [APPS](#) [DEMO VIDEO](#) [Create a Bot](#) [UPGRADE](#)   ZACHARY

Recommended Bots

Choose your apps and try out the recommended Bots

 Insightly ×  Google Drive ×  GitHub ×  Typeform ×

 Pipedrive ×  PayPal ×  Teachable ×  MySQL ×

 Wufoo ×  Wordpress ×  Gmail ×  Google Sheets ×

 Slack × 

My Account

TOTAL ACTIONS 0/250

BOTS 0 /5

Current Plan - Trial
Trial ends in 7 days

[Upgrade](#)

Add a Row in Google Sheets on a New Form Entry (Webhook) in Typeform

 [Try It Now](#)

Yes you can integrate with many other products.

The screenshot shows the automate.io platform's interface for managing bots. At the top, there are tabs for 'BOTS', 'ACTIVITY', and 'APPS'. Below this, the path 'My Bots > MGMWerksDemo' is displayed. A search bar labeled 'Typeform' is shown above a grid of app icons. The grid includes 'Google Drive' (selected), 'Buffer', 'Calendly', 'Capsule CRM', 'Clearbit', 'ClickSend', 'Constant Contact', 'ConvertKit', 'Drip', 'Dropbox', 'Etsy', 'Eventbrite', and 'Facebook'. Each app icon has a '+' sign to its right, indicating it can be added to a bot. A search bar labeled 'Search' is also present.

The screenshot shows the 'Add a new App' section of the automate.io interface. It features two main sections: 'Select Trigger app' and 'Select Action app', each with a search bar labeled 'Search'. The 'Trigger app' section contains icons for Stripe, SurveyMonkey, Todoist, and Toggl. The 'Action app' section contains icons for Microsoft SharePoint, Office 365, PayPal, Pipedrive, Podio, QuickBooks Online, Salesforce, and ServiceNow. Each app icon has a '+' sign to its right, indicating it can be selected as a trigger or action. A search bar labeled 'Search' is also present at the top of the section.

Automate.IO

Create a Automated Bot in 5 minutes

The screenshot shows the Automate.IO web interface for creating a bot. At the top, there's a navigation bar with the logo, 'BOTS', 'ACTIVITY', 'APPS', 'UPGRADE', a notification bell icon, and a user profile for 'ZACHARY'. Below the navigation, the title 'My Bots > Untitled Bot' is displayed, along with a 'Save' button. The main area is titled 'Select Trigger app' and 'Select Action app', each with a dropdown menu. A search bar labeled 'Search' is also present. Under 'Connected Apps', two options are shown: 'Google Drive' (with an icon of overlapping colored shapes) and 'Typeform' (with an icon of a letter 'T' inside a circle). A large blue '+' button is located on the right side of the interface.

Create a Automated Bot in 5 minutes

Your Free trial will end in 7 days. [Choose a plan](#) ⓘ

automate.io BOTS ACTIVITY APPS

My Bots > MGMWerksDemo ↗

Typeform

Select the trigger event

New Form Entry (Webhook)
Triggers instantly when there is a new form submission

New Form Entry discontinued
Triggers when there is a new form submission

Google Drive

Add a File

File Name required

File Title

File Content required

File Type optional

Output Fields

fileID

A screenshot of the automate.io platform interface. At the top, a banner indicates a free trial ending in 7 days with a link to choose a plan. Below the banner, the automate.io logo is on the left, followed by navigation links for BOTS, ACTIVITY, and APPS. The main area shows a bot named "MGMWerksDemo". On the left, under the "Typeform" section, there's a dropdown for "Select the trigger event" with two options: "New Form Entry (Webhook)" (instant trigger) and "New Form Entry discontinued" (old trigger). On the right, under the "Google Drive" section, there's a dropdown for "Add a File". It includes fields for "File Name" (labeled "required") and "File Content" (also labeled "required"). There are also optional fields for "File Type" and "Output Fields" containing "fileID". A blue "+" button is located at the top right of the main workspace.

Your Free trial will end in 7 days. [Choose a plan](#) 



BOTS ACTIVITY APPS

My Bots > Typeform - New Form Entry (Webhook) 

Typeform

New Form Entry (Webhook)

Input Fields

Select Form required

MgmWerks

Output Fields

- Submission Date
- Your Name
- Your Email
- What is your tech background or n...
- Questions or Comments

Google Drive

Add a File

Input Fields

Parent Folder optional

rulesdemo

File Name required

zach

File Content required

Your Name Your Email

File Type optional

Text file

Your Free trial will end in 7 days. [Choose a plan](#) ⓘ



BOTS

ACTIVITY

APPS

Create a Bot

UPGRADE



ZACHARY ▾

My Bots 1



Typeform - New Form Entry (Webhook)



ON

Last run: 52 seconds ago

Showing

All

activities of

All Bots



Auto Retry



Success: Bot ran successfully.
Typeform - New Form Entry (Webhook)

4 seconds ago



New Form Entry (Webhook)
ran successfully.

Output

QRe3XSkBpgJD: "zach"
Q2XJcenyHWSF: "fo@fo.f"
IW2ApeaBCwlK: "Tech for Business need only"
gAvDWG5Rzhi7: "gelp"
submission_date: "03-Jul-2019 16:26:08"



Add a File
ran successfully.

Bot turned ON



https://drive.google.com/drive/u/2/folders/1Y6q6Sb5XvpCef4B-ov-SUheKjlqBUGmg



Drive



Search Drive



New



My Drive



Computers



Shared with me



Recent



Starred



Trash



Backups



Storage

My Drive > rulesdemo



Name ↓

zach



zach



Details

Activity

Today

11:26 AM



You uploaded an item



zach

No recorded activity before July 3, 2019

You can build your own custom Bot and use your own Website.

A screenshot of a web browser displaying the Typeform Developers website at https://developer.typeform.com/webhooks/. The page title is "Webhooks API". The header includes navigation icons, a search bar, and user authentication buttons for "Login" and "Sign up".

Webhooks API

Where do you want to send your typeform's data? With our Webhooks API, you can send every submission straight to any URL or compatible web application as soon as it's submitted.

NOTE: If you need help with a Webhooks error, you can find more information in the [Troubleshooting and errors](#) section.

Key concepts

Webhooks are notifications that are triggered automatically when a specific event occurs and sent through the web. With the Typeform Webhooks API, the event is a new response submission. When a new submission comes in, a notification that contains the response data is immediately sent to your chosen destination: the URL or web application you set. Your webhook should send a `2XX` HTTP response status code back to let Typeform know that you received the webhook data.

Typeform webhooks

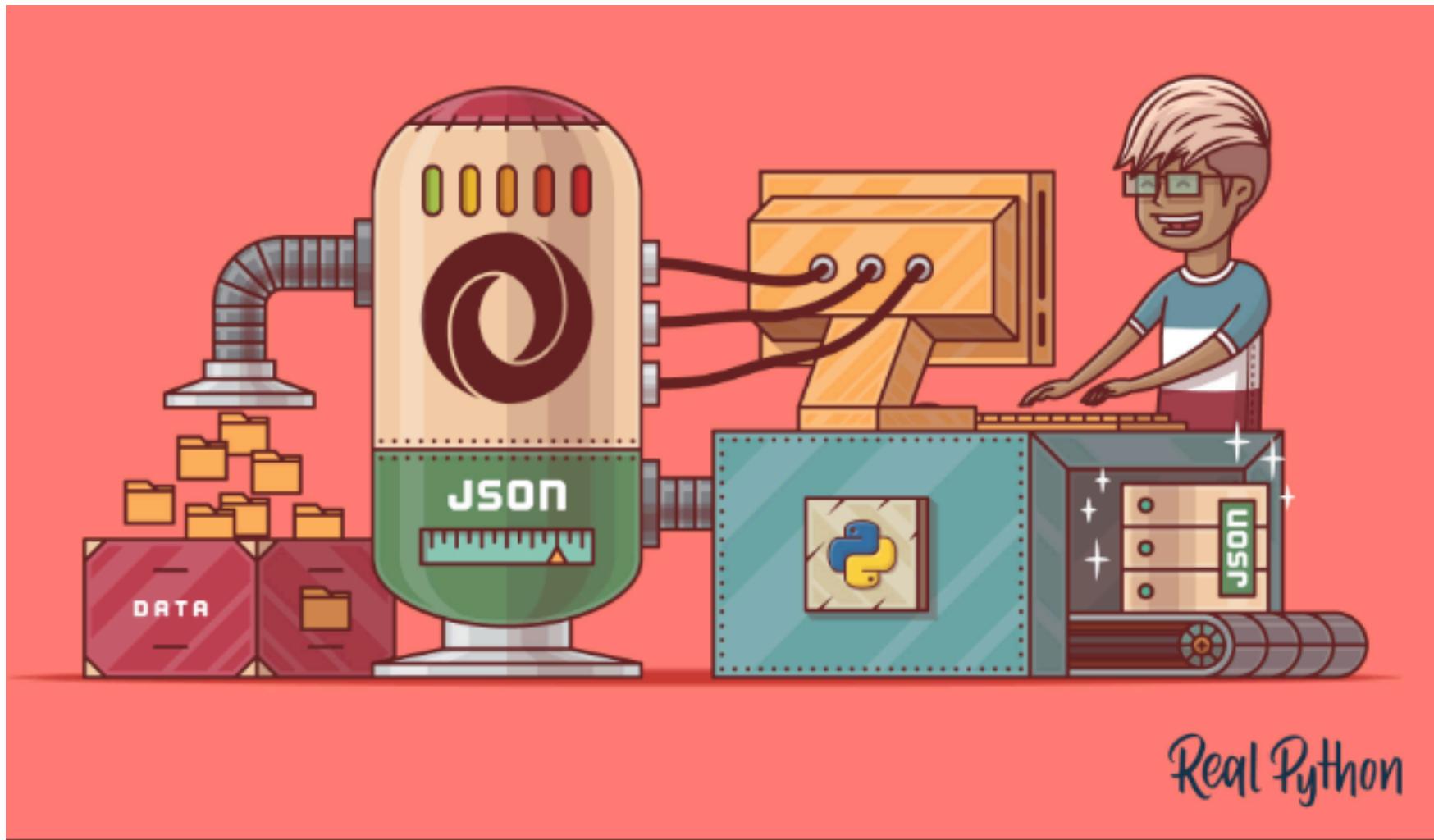
Return JSON



EXAMPLE

```
{  
  "total_items": 4,  
  "page_count": 1,  
  "items": [  
    {  
      "landing_id": "21085286190ffad1248d17c4135ee56f",  
      "token": "21085286190ffad1248d17c4135ee56f",  
      "response_id": "21085286190ffad1248d17c4135ee56f",  
      "landed_at": "2017-09-14T22:33:59Z",  
      "submitted_at": "2017-09-14T22:38:22Z",  
      "metadata": {  
        "user_agent": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_12_6) AppleWebKit/603.3.8 (KHTML, like Gecko) Version/10.1.2 Safari/603.3.8",  
        "platform": "other",  
        "referer": "https://user_id.typeform.com/to/lR6F4j",  
        "network_id": "respondent_network_id",  
        "browser": "default"  
      },  
      "answers": [  
        {  
          "field": {  
            "id": "hVONkQcnSNRj",  
            "type": "dropdown",  
            "ref": "my_custom_dropdown_reference"  
          },  
          "type": "text",  
          "text": "Job opportunities"  
        },  
        {  
          "field": {  
            "id": "hVONkQcnSNRj",  
            "type": "dropdown",  
            "ref": "my_custom_dropdown_reference"  
          },  
          "type": "text",  
          "text": "Job opportunities"  
        }  
      ]  
    }  
  ]  
}
```

↑ ↓ Copy



Real Python

TypeForm My WebHooks Python Demo

The screenshot shows the TypeForm 'Webhooks' settings page. At the top, there are tabs for 'INTEGRATIONS' and 'WEBHOOKS'. The 'WEBHOOKS' tab is selected, indicated by a blue underline. Below the tabs, there is a section titled 'Webhooks' with a sub-section header 'Notify external services when someone fills out your typeform. Learn more about webhooks'. A large yellow speech bubble graphic overlays the page, containing the text 'My Host with a simple JSON processor'. Two webhook entries are listed:

- http://50.63.164.2:9999/** - Status: Webhook ON (switch is green), View deliveries, Edit.
- https://wh.automate.io/webhook/5d1cd690a40fa506...** - Status: Webhook ON (switch is green), View deliveries, Edit.

My Simple Typeform Python Json Processor

```
zacharylewis — zcstr@zacimelcc:~/typeformdemo — ssh zcstr@50.63.1...
import socket
import json
import threading

bind_ip = '0.0.0.0'
bind_port = 9999

server = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
server.bind((bind_ip, bind_port))
server.listen(5) # max backlog of connections

print ('Listening on {}:{}' .format(bind_ip, bind_port))

def handle_client_connection(client_socket):
    request = client_socket.recv(2048)
    survey = str(request)
    results = survey.replace('\\n', '\n')
    i = 0
    for line in results.split('\n'):
        i = i + 1
        #print(str(i) + ": " + line)
        if ( i == 8 ):
            jdata = json.loads(str(line))
            formrep = jdata["form_response"]["answers"]
            for i in range(len(formrep)):
                if ( formrep[i]["type"] == "text" ):
                    print(str(formrep[i]["text"]))
                else:
                    print(str(formrep[i]["choice"]["label"]))
```

TypeForm My WebHooks Python Demo



C



https://zacharylewis.typeform.com/to/CpcT4q



Tell us about Yourself

Start

press ENTER



https://zacharylewis.typeform.com/to/CpcT4q



1 ➔ One word why are you here ?

Innovate|

OK ✓

press ENTER

0 of 2 answered

Powered by Typeform





https://zacharylewis.typeform.com/to/CpcT4q



2 → Which is more like you ?

A Techie , Nerd , Tech for Fun

B Non-Tech Business need only

c Novice, Wanting to Learn More

Key D Lunchtime Something to do . ✓

2 of 2 answered

Powered by Typeform



Submit

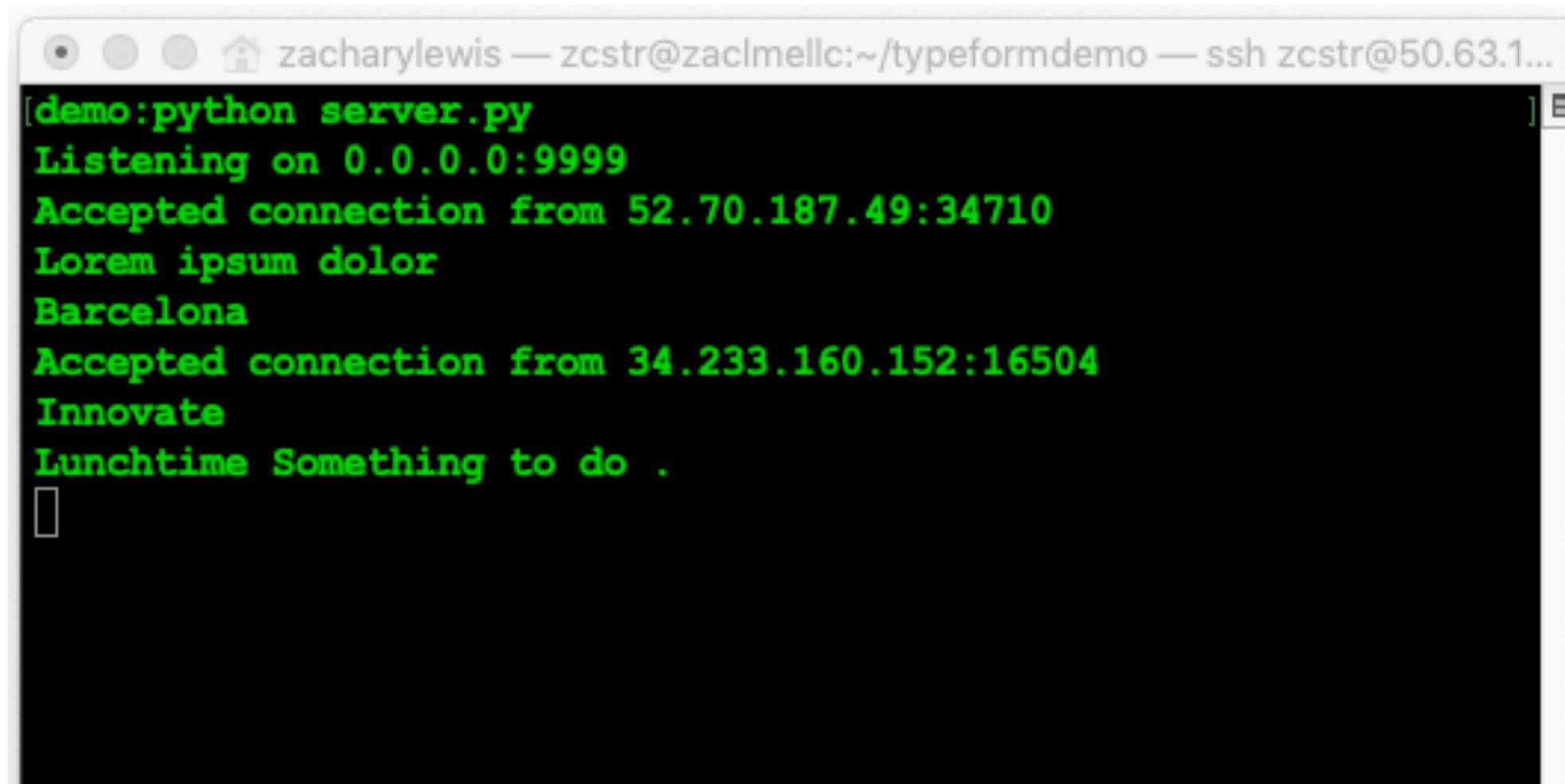
Never submit passwords! - [Report abuse](#)

2 of 2 answered

Powered by Typeform



TypeForm My WebHooks Python Demo



A screenshot of a terminal window titled "zacharylewis — zcstr@zaclmellc:~/typeformdemo — ssh zcstr@50.63.1...". The terminal displays the output of a Python script named "server.py". The output shows the server listening on port 9999, accepting connections from two different IP addresses, and printing out placeholder text ("Lorem ipsum dolor" and "Barcelona") and a status message ("Innovate").

```
[demo:python server.py
Listening on 0.0.0.0:9999
Accepted connection from 52.70.187.49:34710
Lorem ipsum dolor
Barcelona
Accepted connection from 34.233.160.152:16504
Innovate
Lunchtime Something to do .
```

TypeForm My WebHooks Request are stored and can be Resent If server is down Demo

Recent deliveries

Delivery ID	Delivery details	Send test request
✓ 2:05:22 AM 7 Jul 2019 01DF5GHNJJHN129B324YZWCVBG	REQUEST RESPONSE 200 Redeliver	
✗ 1:47:53 AM 7 Jul 2019 01DF5H0MS9MEN2XS32RCEF708T		
✗ 1:35:54 AM 7 Jul 2019 01DF5GAP4V24N9HH3E5STF089M		
✗ 1:24:43 AM 7 Jul 2019 01DF5G89SH6FHN5YQ6QW5VHRMA		
✗ 12:48:20 AM 7 Jul 2019 TEST 01DF5FKPQ6VYH0TG421S7MS653		
✗ 12:43:29 AM 7 Jul 2019 TEST 01DF5FAT6NZFNB780HJ6D6MW4		
✗ 12:43:00 AM 7 Jul 2019 TEST 01DF5F9XNPMSA77K3W3JR9HVC		

Headers

```
Content-Type: application/json
```

Payload

```
{
  "event_id": "01DF5GHNJJHN129B324YZWCVBG",
  "event_type": "form_response",
  "form_response": {
    "form_id": "CpcT4q",
    "token": "631f2544817a463bb7d44f56038094bb",
    "landed_at": "2019-07-07T06:04:36Z",
    "submitted_at": "2019-07-07T06:04:42Z",
    "definition": {
      "id": "CpcT4q",
      "title": "MgmWerks",
      "fields": [
        {
          "id": "QRe3XSkBpgJD",
          "title": "One word why are you here ?",
          "type": "short_text",
          "ref": "d5a37a90-f0e3-4d36-bb4a-4d239e94929a",
          "properties": {}
        }
      ]
    }
  }
}
```

Automating Knowledge Management



Potential Benefits Automating Action and Response

1. Speed up Response Time
2. Support more customers
3. Integrate into an existing system or business process
4. Share Selected information with external partners
5. Enhance Collaboration by providing only the information needed to various roles in a business process. Reduce information overload.

Questions ??