



# Wagtail - Zapoznanie z popularnym CMSem do Django

Bartosz Dąbrowski



# Kim jestem

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# Czego się nauczymy?

- Poznamy Wagtaila od strony teoretycznej
- Pokażę przykładową aplikację rozwiązującą życiowy problem
- Zapoznamy się z kilkoma podstawowymi budulcami Wagtaila
- Pokażemy i omówimy część kodu przykładowej aplikacji
- Opowiemy o dodatkowych funkcjonalnościach
- Powiemy sobie co jest nie tak z Wagtail'em
- Spojrzymy także w przyszłość

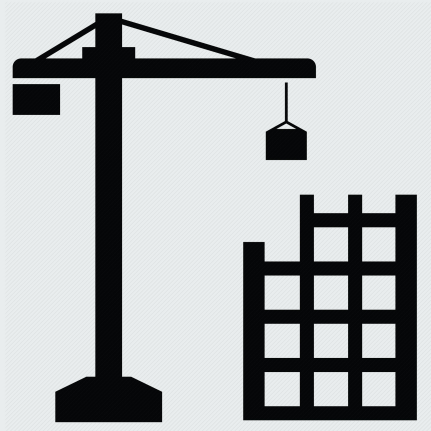


**Co to jest Wagtail?**



# Wagtail Objectives

## Budowa Systemu



## Zarządzanie Treścią



# Multiple hats





Wordpress

Bardzo Wysoki

Wagtail

Średni

Django admin

Niski





# DX & UX







# Wagtail is Django








 Pages >

 Category Model

 Images

 Documents

 Snippets

 Settings >



Welcome to the foodshare Wagtail  
CMS  
other

No, but seriously -- welcome to the admin homepage.



25  
Pages



35  
Images



0  
Documents

## YOUR MOST RECENT EDITS

TITLE	DATE	STATUS
Hamburgery Vegańskie z Fasoli	2 days, 20 hours ago	LIVE

Google

NHS

salesforce

moz://a



open NASA



# Dlaczego Wagtail?

- Technologia której można zaufać
- UI/UX - wybór edytorów
- Innowacyjny



 [divio](#) / [django-cms](#)

 Watch ▾

416

 Star

6,241

 Fork

2,181

 [wagtail](#) / [wagtail](#)

 Watch ▾

338

 Star

5,995

 Fork

1,330



# Problem



## Poles among EU's biggest food wasters: report

16.10.2018 07:30

Poland is in fifth place in the European Union in terms of the amount of food wasted per person, according to a report.



Photo: Hans/pixabay/CC0 Creative Commons

Poles waste 235 kilogrammes of food per person per year, a study by professional services firm Deloitte said.



Facebook



Twitter



Rss



Podcast

### Featured Radio



Book ...

**BALANCE ::**   
There's no  
business like bo ...

A look at "The Polish Book  
Market 2018" report  
released by the Polish



launche ...

**Q&A :: 25**   
years of cleaning  
up Poland

This year marks 25 years  
since the Clean Up the  
World campaign was

### Most Popular

**Planned canal to boost Poland' ...**

**New book reveals ex-PM Tusk's ...**

**Germans bought news outlets to ...**

**Fewer Poles at risk of poverty ...**

**Over 1,000 events to mark cent ...**

### Radio Shorts



**Poland signs**   
20-year US LNG deal

Polish state-run gas company  
PGNiG says it has signed a  
long-term agreement with two  
American companies for the



# Home

Spam Egg



Możesz podzielić się swoim jedzeniem używając formularza:

**Ugotowano o:**

**Title:**

The page title as you'd like it to be seen by the public

**Opis:**

**Image upload:**

No file selected.



## Golonka Gotowana

Wagtail adapts and extends the Django permission system to cater for the needs of website content creation, such as moderation workflows, and multiple teams working on different areas of a site (or multiple sites within the same Wagtail installation). Permissions can be configured through the 'Groups' area of the Wagtail admin interface, under 'Settings'.



## Gulasz

Wagtail supports generating embed code from URLs to content on external providers such as Youtube or Twitter. By default, Wagtail will fetch the embed code directly from the relevant provider's site using the oEmbed protocol.



## Naleśniki z Nutellą

Wagtail provides a comprehensive and extensible search interface. In addition, it provides ways to promote search results through "Editor's Picks". Wagtail also collects simple statistics on queries made through the search interface.



Pages >

Category Model

Images

Documents

Snippets

Settings >



## Home

Privacy

EDIT VIEW LIVE + ADD CHILD PAGE MORE ▾

2 days, 22 hours ago

Home page

LIVE

TITLE ▾	UPDATED ▾	TYPE ▾	STATUS ▾
Hamburgery Vegańskie z Fasoli	2 days, 21 hours ago	Dinner page	LIVE
Befszyk Tatarski	2 days, 22 hours ago	Dinner page	LIVE
Golonka Gotowana	3 days, 1 hour ago	Dinner page	LIVE
Gulasz	3 days, 1 hour ago	Dinner page	LIVE
Naleśniki z Nutellą	3 days, 1 hour ago	Dinner page	LIVE
Półędwiczki w Sosie Własnym	3 days, 1 hour ago	Dinner page	LIVE
Zupa Grzybowa	3 days, 1 hour ago	Dinner page	LIVE
Rosół	3 days, 1 hour ago	Dinner page	LIVE



Pages >

Category Model

Images

Documents

Snippets

Settings >



Home >



EDITING DINNER PAGE Racuchy

CONTENT

PROMOTE



SETTINGS



TITLE \*

Racuchy



UGOTOWANO O \*



2018-10-11 10:52



IMAGE



CLEAR CHOICE

CHANGE IMAGE

EDIT THIS IMAGE



OPIS

Wagtail provides a comprehensive and extensible search interface. In addition, it provides ways to promote search results through "Editor's Picks". Wagtail also collects simple statistics on queries made through the search interface.



# Page

```
35 class DinnerPage(Page):
36     image = models.ForeignKey(
37         'wagtailimages.Image',
38         null=True, blank=True, on_delete=models.SET_NULL,
39         related_name='+',
40     )
41     advert = models.ForeignKey('home.Advert', null=True, blank=True,
42                               on_delete=models.SET_NULL, related_name='+')
43     cooked = models.DateTimeField("Ugotowano o")
44     body = models.TextField("Opis", blank=True)
45     search_fields = Page.search_fields + [
46         index.SearchField('title'),
47         index.SearchField('body'),
48         index.FilterField('cooked'),
49     ]
50     content_panels = Page.content_panels + [
51         FieldPanel('cooked'),
52         ImageChooserPanel('image'),
53         FieldPanel('body', classname="full"),
54         FieldPanel('advert'), ]
55
```

# Page Dziedziczenie



Wagtail

Page

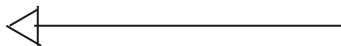
Id

path

numchild

title

first\_published\_at



FoodShare

DinnerPage

page\_ptr\_id

intro

body

cooked

image

# Page Relacja



Wagtail

Page

Id 1  
path  
numchild  
title  
first\_published\_at

FoodShare

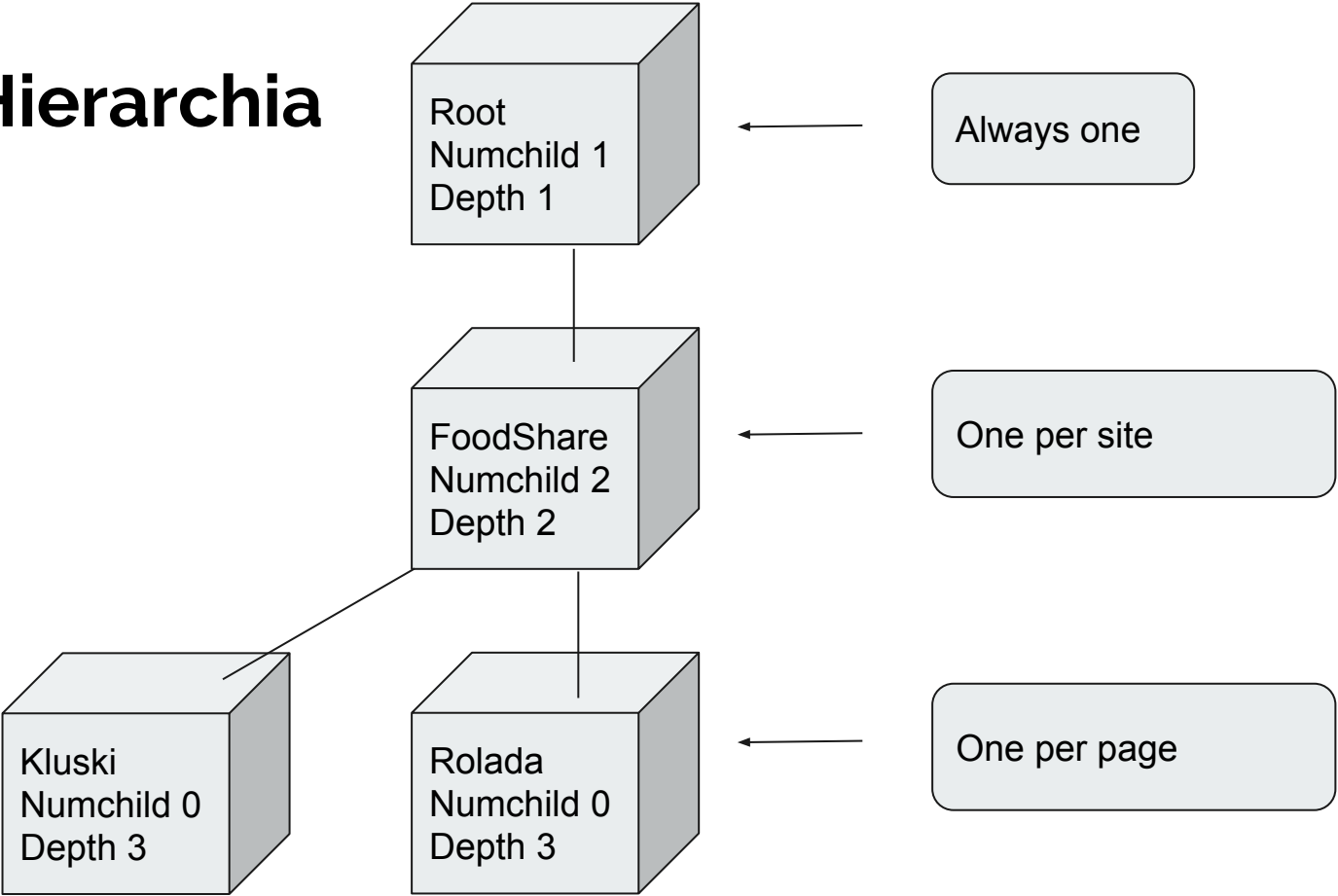
DinnerPage

page\_ptr\_id 1  
intro  
body  
cooked  
image





# Page Hierarchy





# StreamField



Heading

Heading

Heading



CHOOSE AN IMAGE

IMAGE



CHOOSE AN IMAGE



Heading



Paragraph



Image

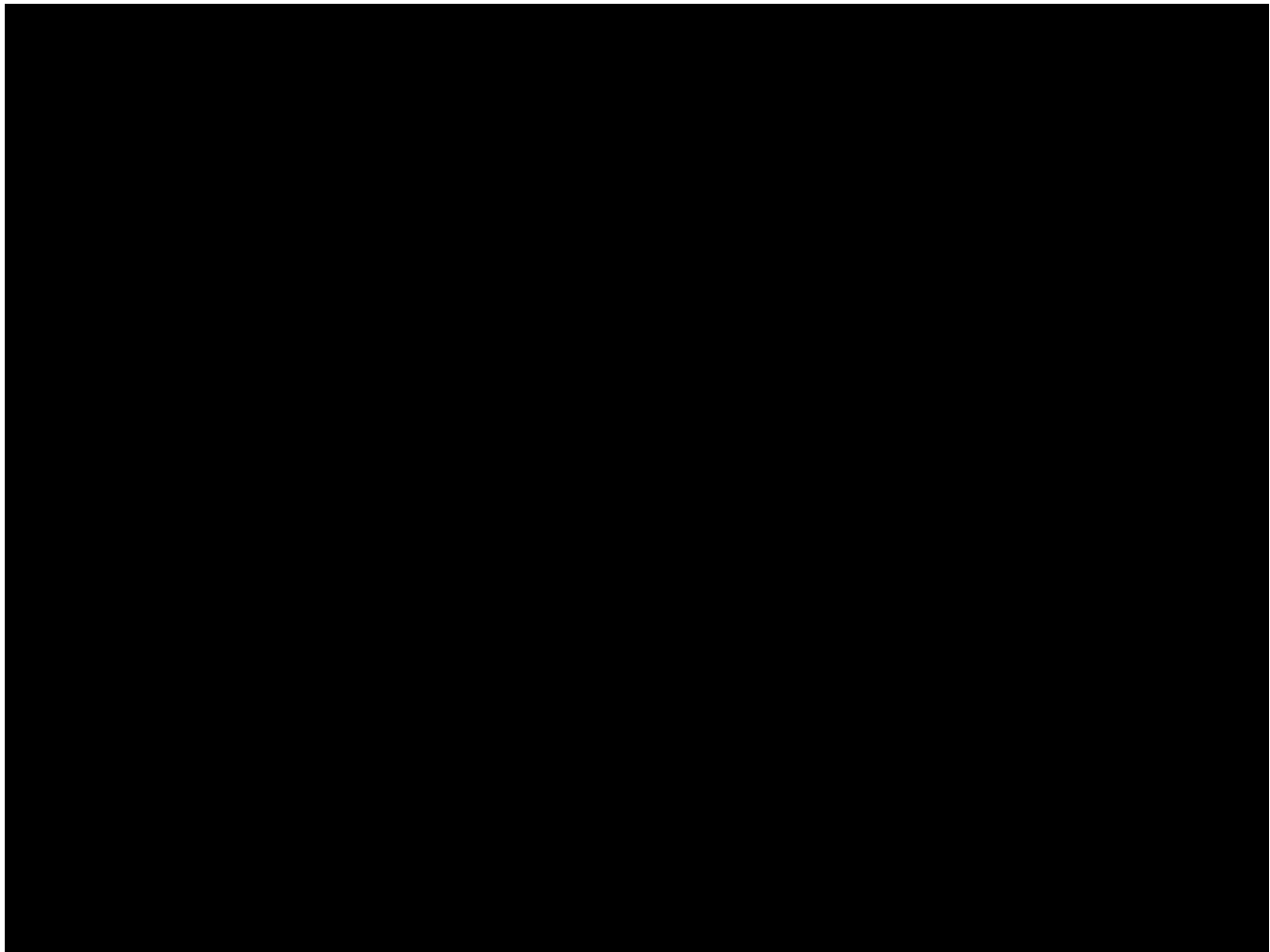


Table

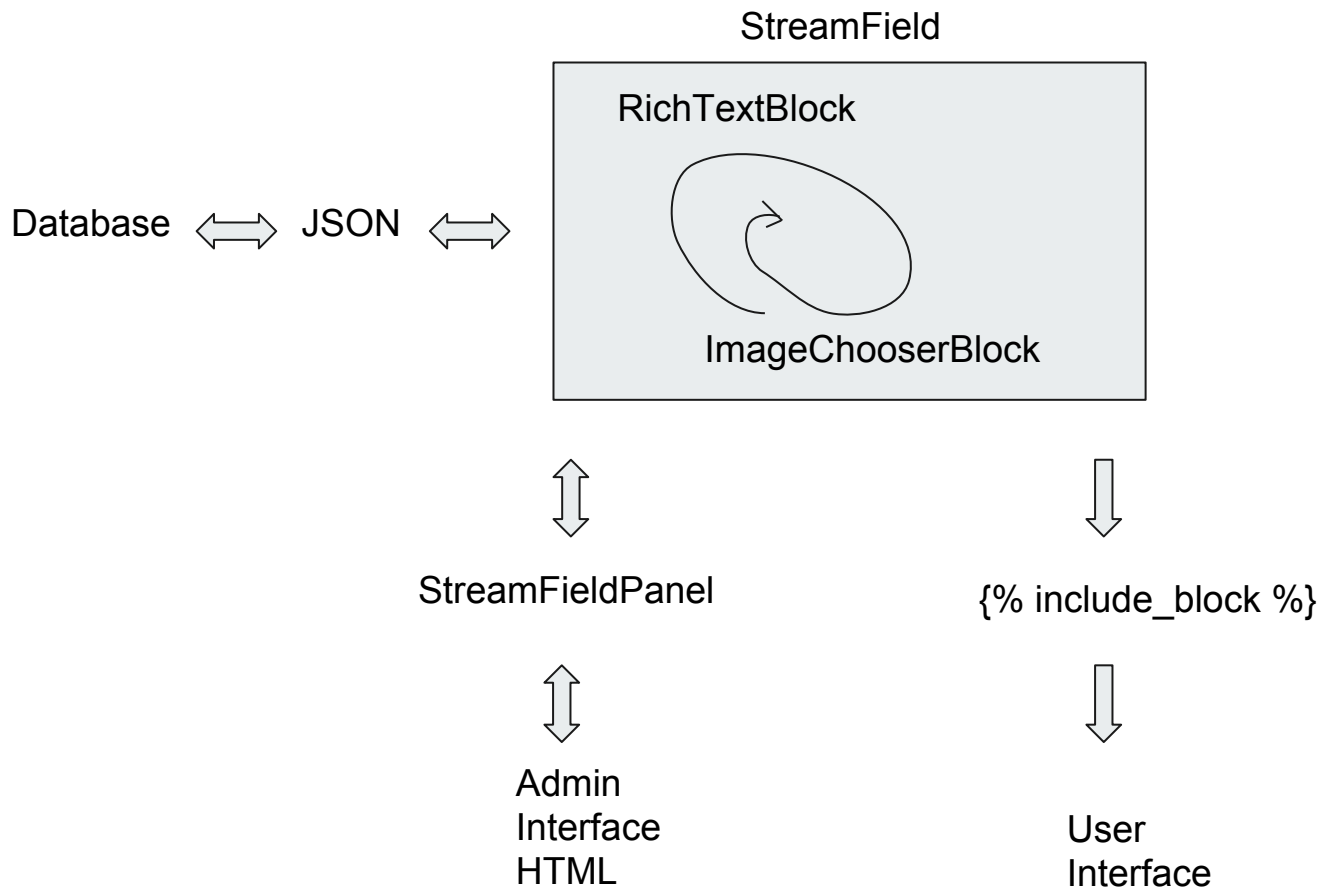


Advert  
banner





```
86 class HomePage(Page):
87     intro = RichTextField(blank=True)
88
89     body = StreamField([
90         ('heading', CharBlock(classname='full title')),
91         ('parapraph', RichTextBlock()),
92         ('image', ImageChooserBlock()),
93         ('table', TableBlock()),
94     ], null=True)
95
96     content_panels = Page.content_panels + [
97         FieldPanel('intro', classname="full"),
98         StreamFieldPanel('body'),
99     ]
100
```





# Images



```
64 class DinnerPage(Page):
65     image = models.ForeignKey(
66         'wagtailimages.Image',
67         null=True, blank=True, on_delete=models.SET_NULL,
68         related_name='+',
69     )
70     cooked = models.DateTimeField("Ugotowano o")
71     body = models.TextField("Opis", blank=True)
72
73     content_panels = Page.content_panels + [
74         FieldPanel('cooked'),
75         ImageChooserPanel('image'),
76         FieldPanel('body', classname="full"),
77     ]
```



Search f

v Pages n

7 Legacy Article

7 Category

7 Country

7 Place

o Images

r Documents

D Snippets

a Settings n

O IMAGES

f Search images

t ADD AN IMAGE

Collection:

All collections

q

## LATEST IMAGES



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Royal Botanic Gardens in Kew,  
London



Pages

Legacy Article

Category

Country

Place

Images

Documents

Snippets

Settings

## EDITING Royal Botanic Gardens in Kew, London

**Title:** \* Royal Botanic Gardens in Kew, London

**File:** \* [DSCF0387\\_18.jpeg](#) (1920x1440)

Change image file:

No file selected.

Supported formats: GIF, JPEG, PNG. Maximum filesize: 10.0 MB.

**Collection:** \* Root

**Tags:**

SAVE

DELETE IMAGE

### Focal point (optional)

To define this image's most important region, drag a box over the image below.



REMOVE FOCAL AREA

MAX DIMENSIONS

1920x1440

FILESIZE

397.4 KB



## Extra features

- Programistyczny i Szablony interface dla miniatur
- Animated GIF support (optional)
- Możliwość użycia customowego modelu Image
- Automatyczne wykrywanie punktu centralnego zdjęcia (optional + requires configuration)
- Mass upload



# Życiowy przykład

# Home

Możesz podzielić się swoim jedzeniem używając formularza:

Ugotowano o:

Title:

The page title as you'd like it to be seen by the public

Opis:

Image upload:

Browse...

No file selected.

WYŚLIJ POSILEK

SEARCH



## Befsztyk Tatarski

StreamField provides a content editing model suitable for pages that do not follow a fixed structure – such as blog posts or news stories – where the text may be interspersed with subheadings, images, pull quotes and video. It's also suitable for more specialised content types, such as maps and charts (or, for a programming blog, code snippets). In this model, these different content types are represented as a sequence of 'blocks', which can be repeated and arranged in any order.



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## Gulasz

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## Naleśniki z Nutellą

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```
110 class HomePage(Page):
111     intro = RichTextField(blank=True)
112     body = StreamField([
113         ('heading', CharBlock(classname='full title')),
114         ('paraprph', RichTextBlock()),
115         ('image', ImageChooserBlock()),
116         ('table', TableBlock()),
117         ('advert_banner', BannerAdvertBlock(BannerAdvert)),
118     ], null=True)
119
120 content_panels = Page.content_panels + [
121     FieldPanel('intro', classname="full"), StreamFieldPanel('body'), ]
122
123     [...]
124
125
```



```
110 class HomePage(Page):
111     [...]
112
113
114     def serve(self, request, *args, **kwargs):
115         if request.method == 'POST':
116             form = AddDinnerForm(request.POST, request.FILES)
117             if form.is_valid():
118                 form.save()
119                 return render(
120                     request, 'home/home_page.html',
121                     {'page': self, 'form': AddDinnerForm(),
122                     'dinners': self.get_children().order_by('-first_published_at'),
123                     'submitted': True, })
124         else:
125             form = AddDinnerForm()
126
127             results = self.get_children().order_by('-first_published_at')
128             if 'query' in request.GET and request.GET['query']:
129                 results = self.apply_search(results, request)
130             results = self.apply_pagination(results, request)
131
132             return render(
133                 request, 'home/home_page.html',
134                 {'page': self, 'form': form, 'dinners': results, 'submitted': False,}
135             )
```

```

1 {% extends "base.html" %}
2 {% load wagtailcore_tags %}
3 {% load wagtailimages_tags %}
4
5 {% block body_class %}template-homepage{% endblock %}
6
7 {% block content %}
8 <div class="container"><div class="row"><div class="column">
9 <h1>{{ page.title }}</h1>
10 {% include_block page.body %}
11 {% if submitted %}<h3>Dziękujemy, Twój posiłek został dodany. W międzyczasie możesz dodać kolej
12 <form action="." method="POST" enctype="multipart/form-data">
13     {% csrf_token %}
14     {{ form.as_p }}
15     <p><input type="submit" value="Wyślij posiłek"></p>
16 </form>
17 <form action="{% slugurl 'home' %}" method="get">
18     <input type="text" name="query">{{ search_query }}<input type="submit" value="Search" class="button">
19 </form>
20 {% for dinner in dinners %}
21 {% with dinner=dinner.specific %}
22     {% image dinner.image width-500 %}
23     <h2><a href="{% pageurl dinner %}">{{ dinner.title }}</a></h2>
24     <p>{{ dinner.body|richtext }}</p>
25     <hr>
26 {% endwith %}
27 {% endfor %}
28 </div></div></div>
29 {% endblock %}

```

```
80 class AddDinnerForm(forms.ModelForm):
81     image_upload = forms.ImageField(required=False)
82
83     class Meta:
84         model = DinnerPage
85         fields = ['cooked', 'title', 'body', 'image_upload']
86
87     def save(self, commit=True):
88         self.instance.title = self.instance.title
89         self.instance.latest_revision_created_at = timezone.now()
90         self.instance.first_published_at = timezone.now()
91         image = Image(title='Nice photo', file=ImageFile(self.files['image_upload']))
92         image.save()
93         self.instance.image = image
94         home = HomePage.objects.get(slug='home')
95         home.add_child(instance=self.instance)
96         revision = self.instance.save_revision(submitted_for_moderation=False)
97         if self.instance.live:
98             revision.publish()
99
100     return self.instance
```



# Settings

- Uprawnienia
- Kolekcje
- Modele
- Hooki
- Przekierowania
- Definiowanie własnych ustawienia



# Więcej...

- Search
- Snippets
- Form builder
- Cache Invalidator
- Sitemap generator
- Multiple sites handling
- API support



# Co nie jest idealne?

- Wagtail realizuję wiele celów jednocześnie
- Model nie jest już tylko modelem
- Musisz znać Django aby stworzyć w pełni funkcjonalny system
- Kardra
- Wiele możliwości
- Inne



# Przyszłość

- Drop JQuery (Go with React probably)
- Github like inline review
- Machine Learning
- CX Customized content per user preferences
- Better integration
- Better headless



# Summary

- Czy jest Wagtail
- Page
- StreamField
- Image
- Przykład
- Settings
- Co jest nie tak z Wagtailem?
- Przyszłość





# Dziękuję za uwagę!

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