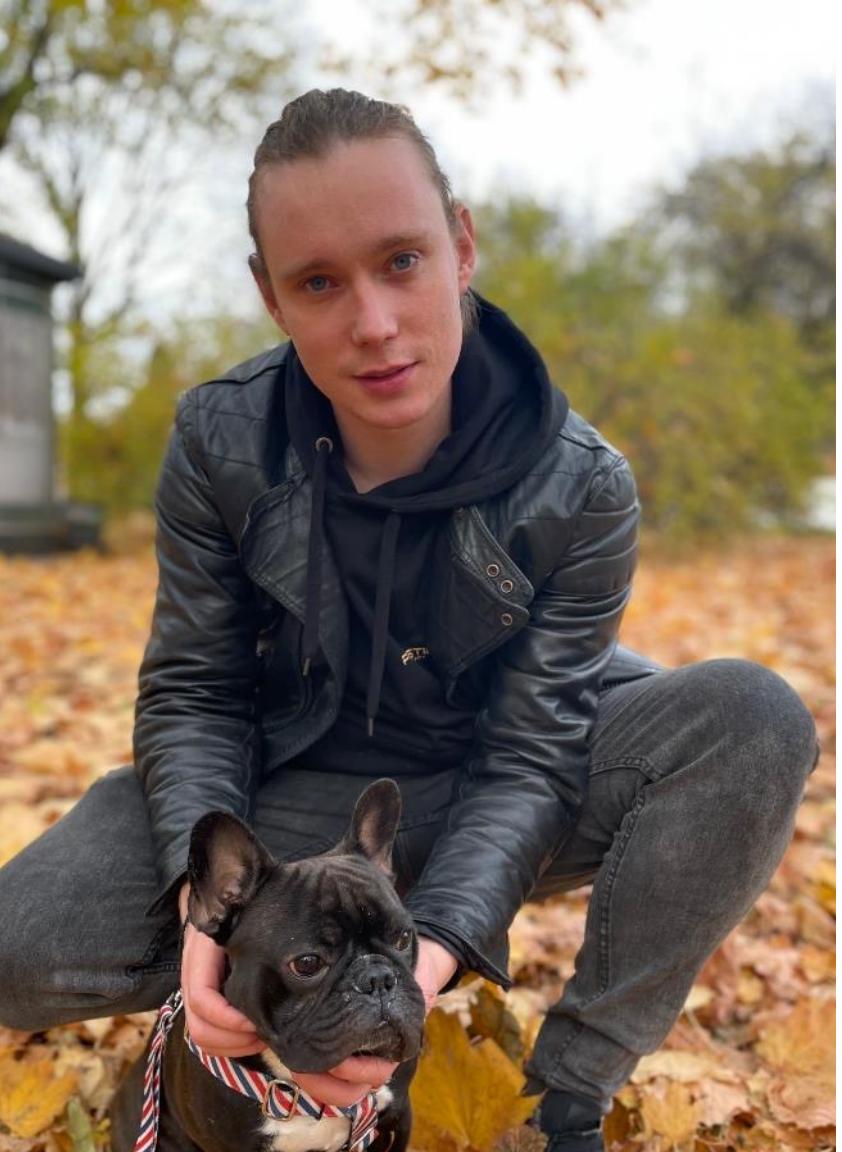


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django

**Love and Thunder**

12/2022



# Python developer

- 10+ YEARS IT
- ~8 YEARS PYTHON
- ~6 YEARS Django
- 4x PyStok
- ddeby.pl

**Dawid Dęby**

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django

**grape up®**

# Django

# Django



Ridiculously fast

To development

# Django



Ridiculously fast

To development



Reassuringly secure

On many areas

# Django



Ridiculously fast

To development



Reassuringly secure

On many areas



Exceedingly  
scalable

From zero to billions

# What You should know

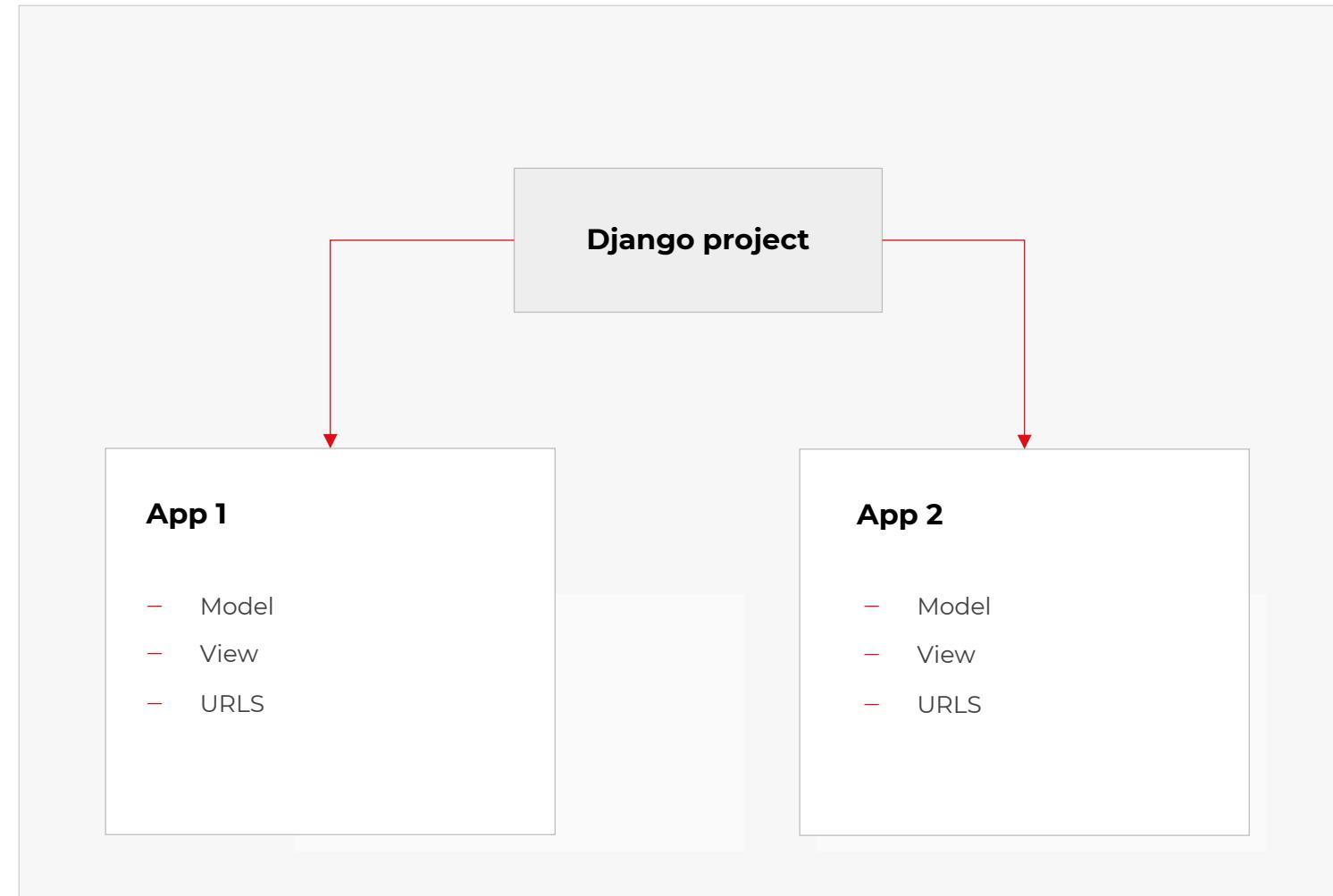
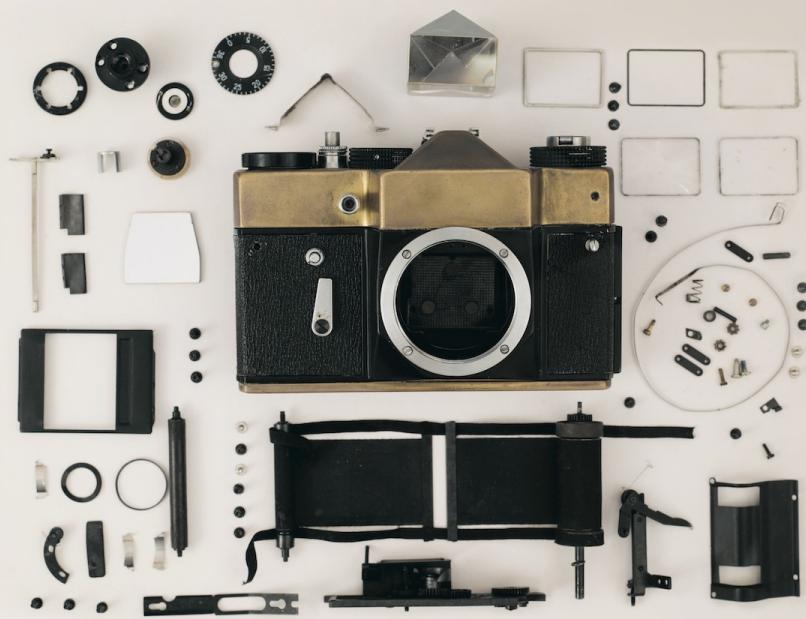


# 1. Apps

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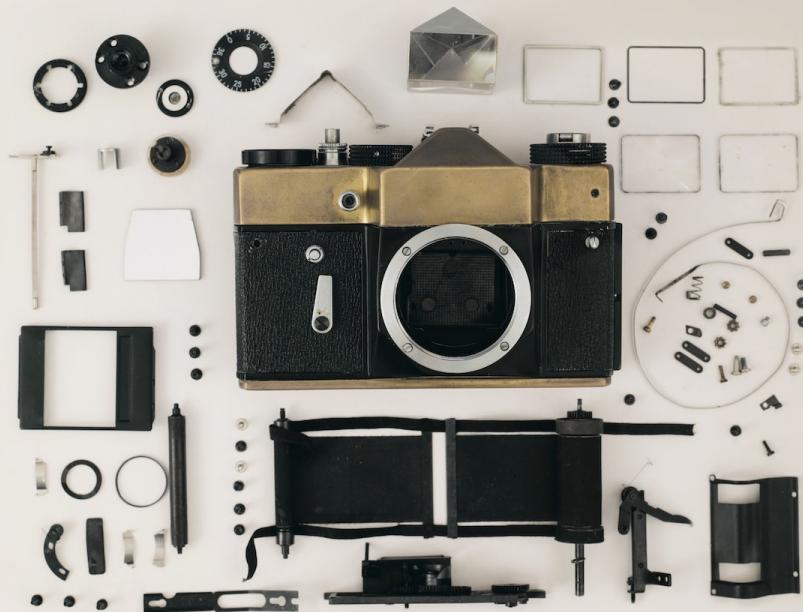
# 1. Apps

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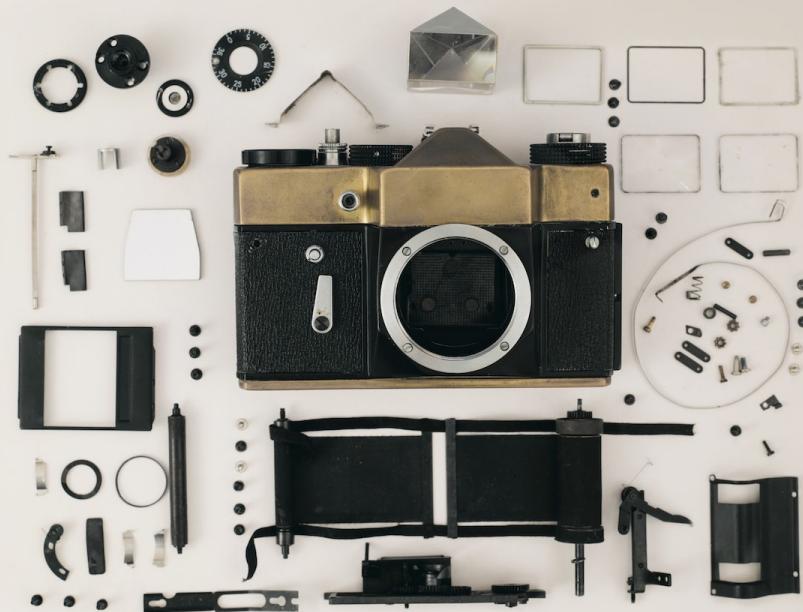
# 1. Apps

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# 1. Apps

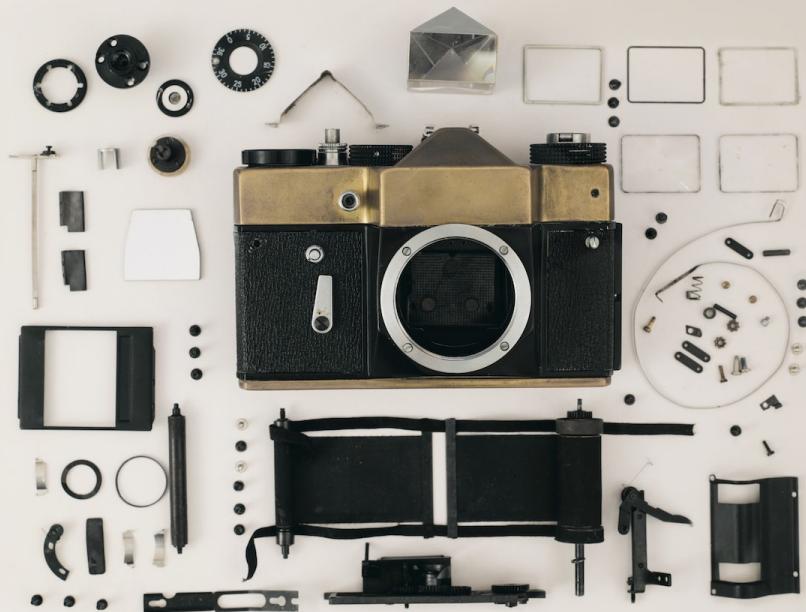
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Apps

# 1. Apps

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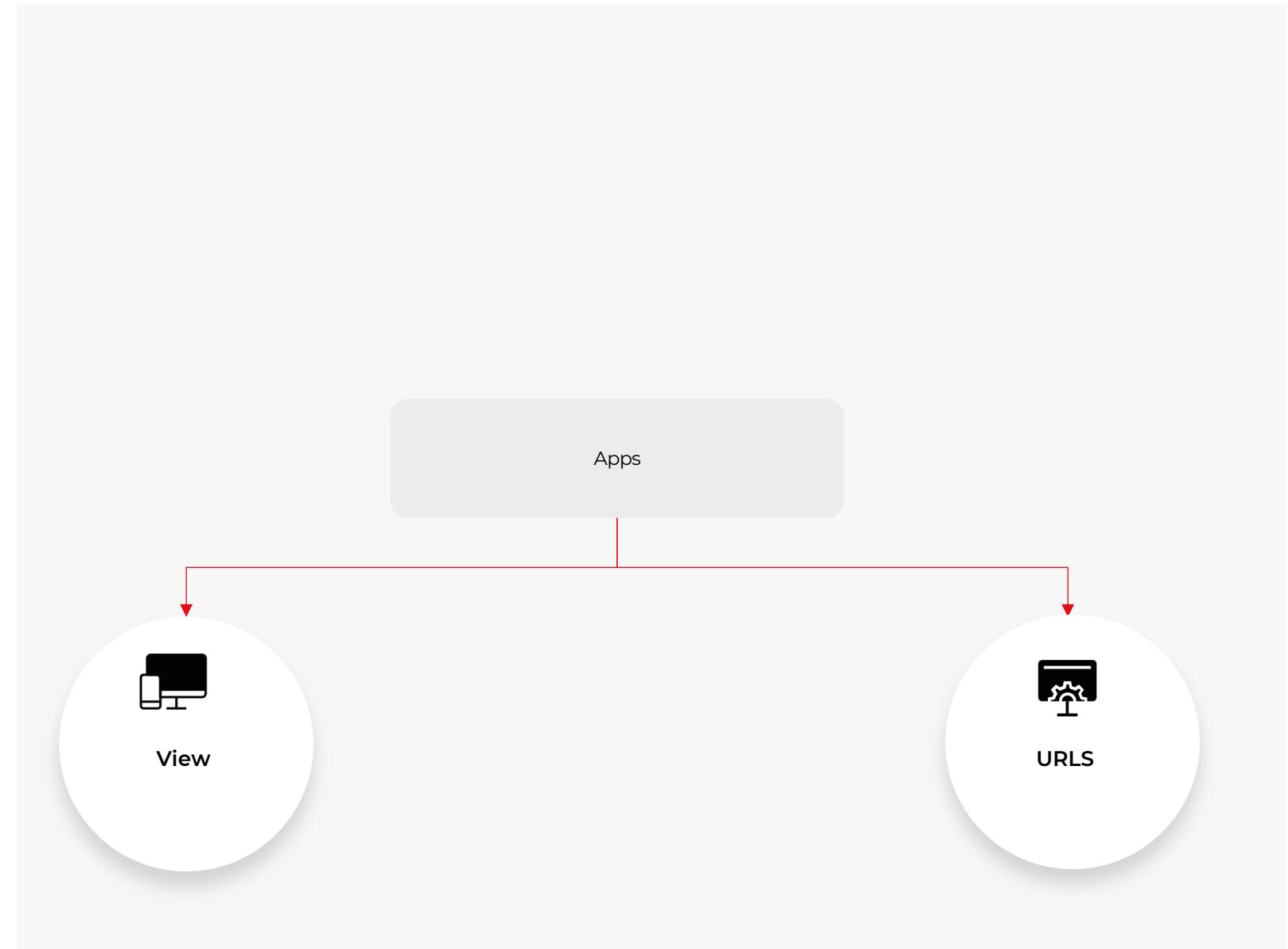
Apps



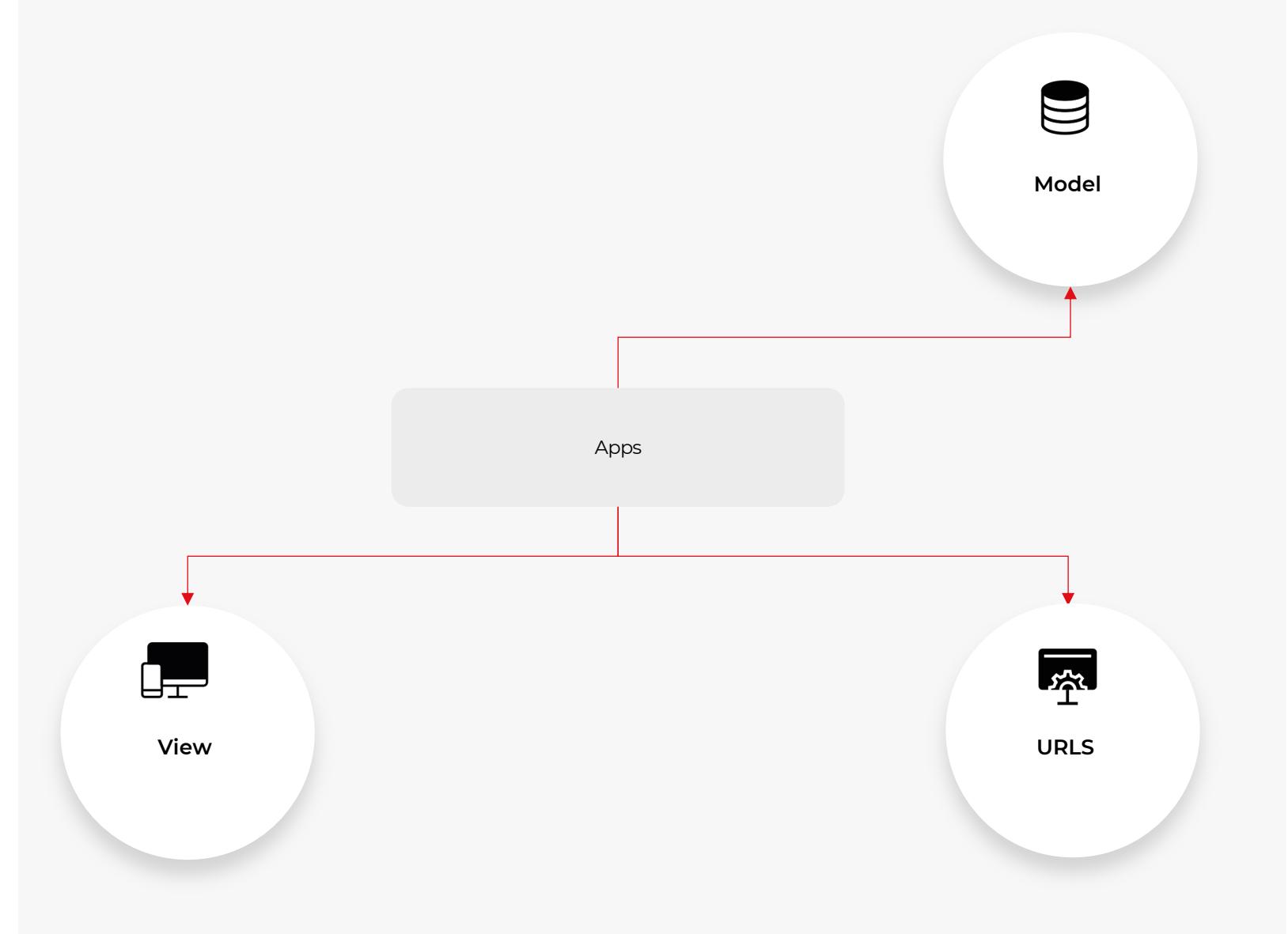
URLS

# 1. Apps

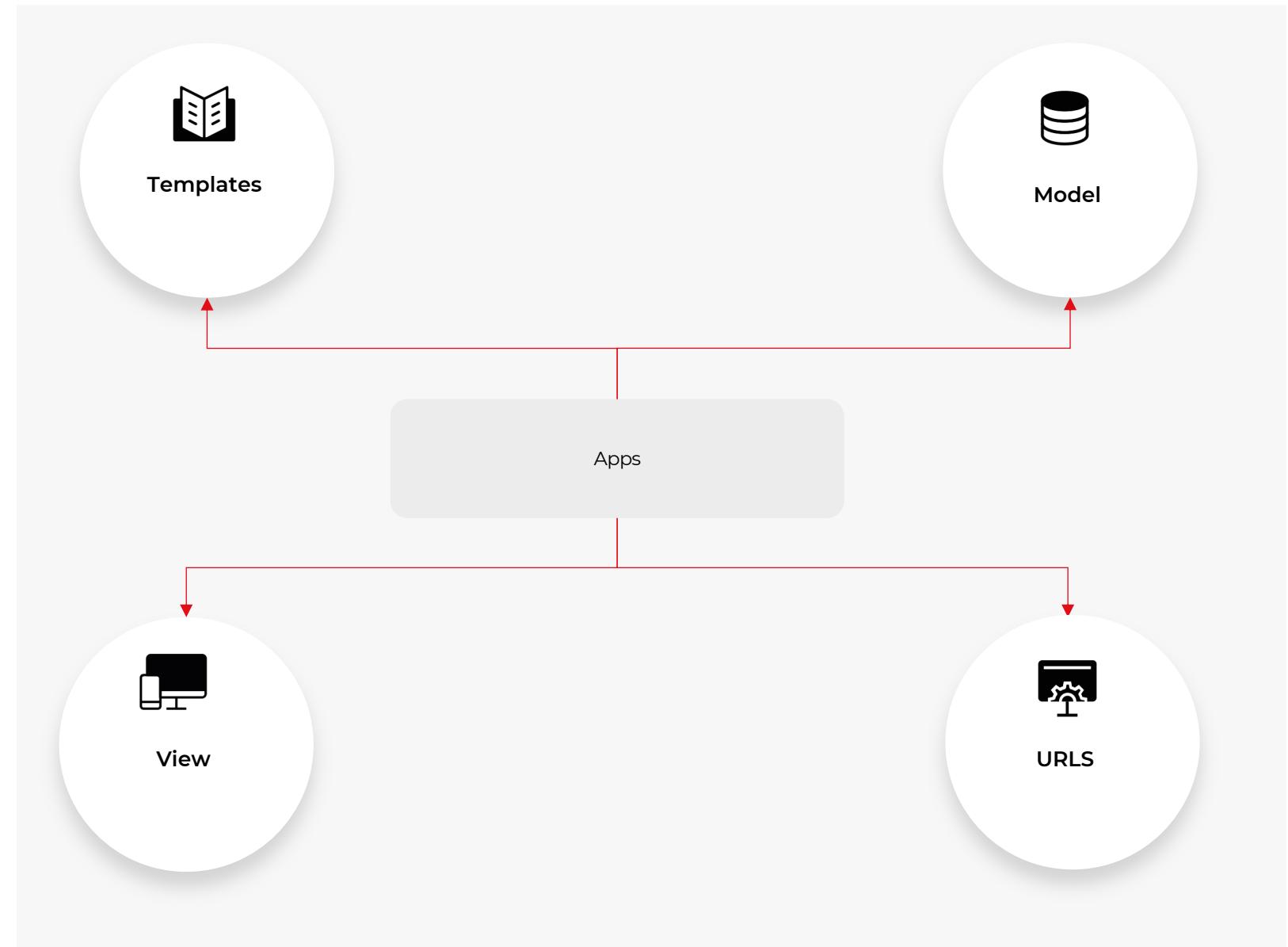
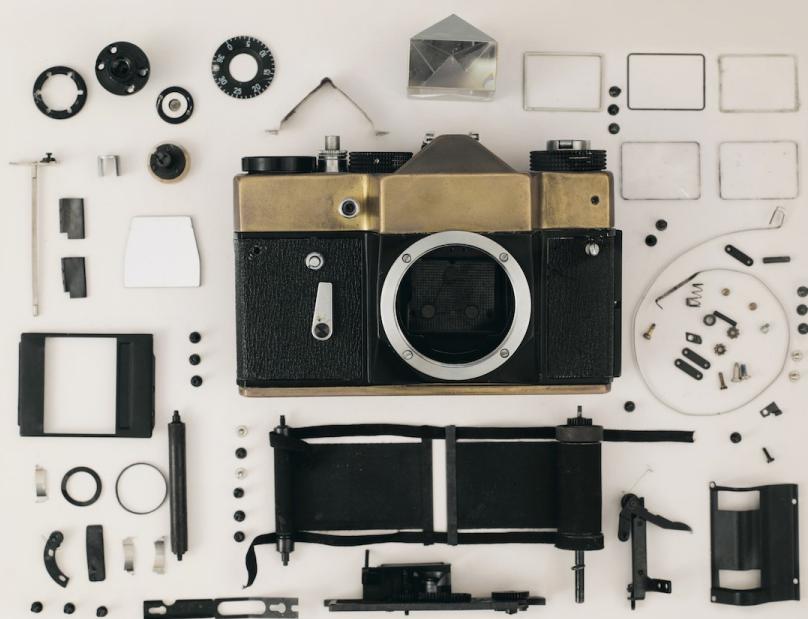
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# 1. Apps

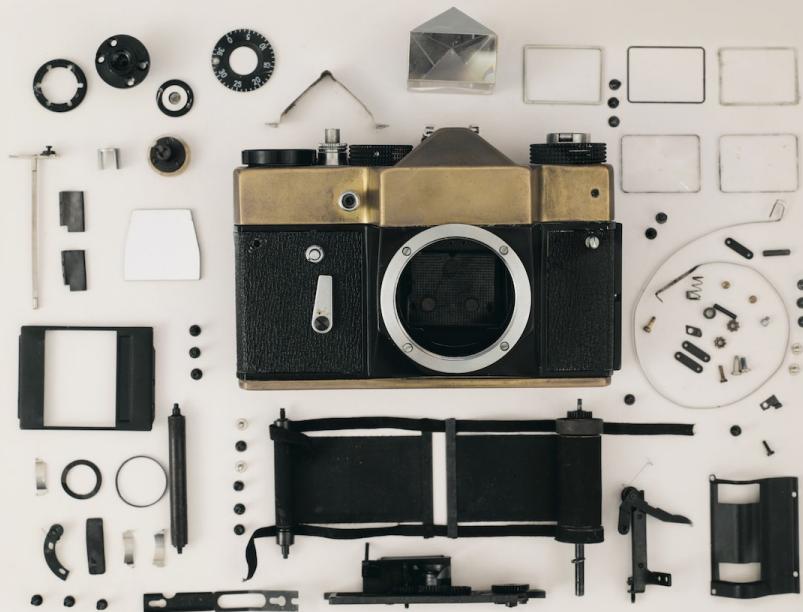


# 1. Apps



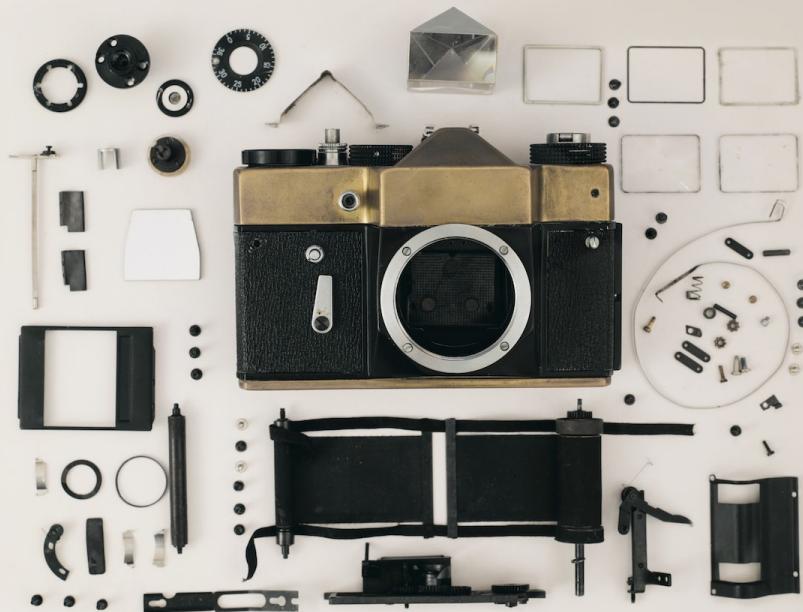
# 1. Apps

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# 1. Apps

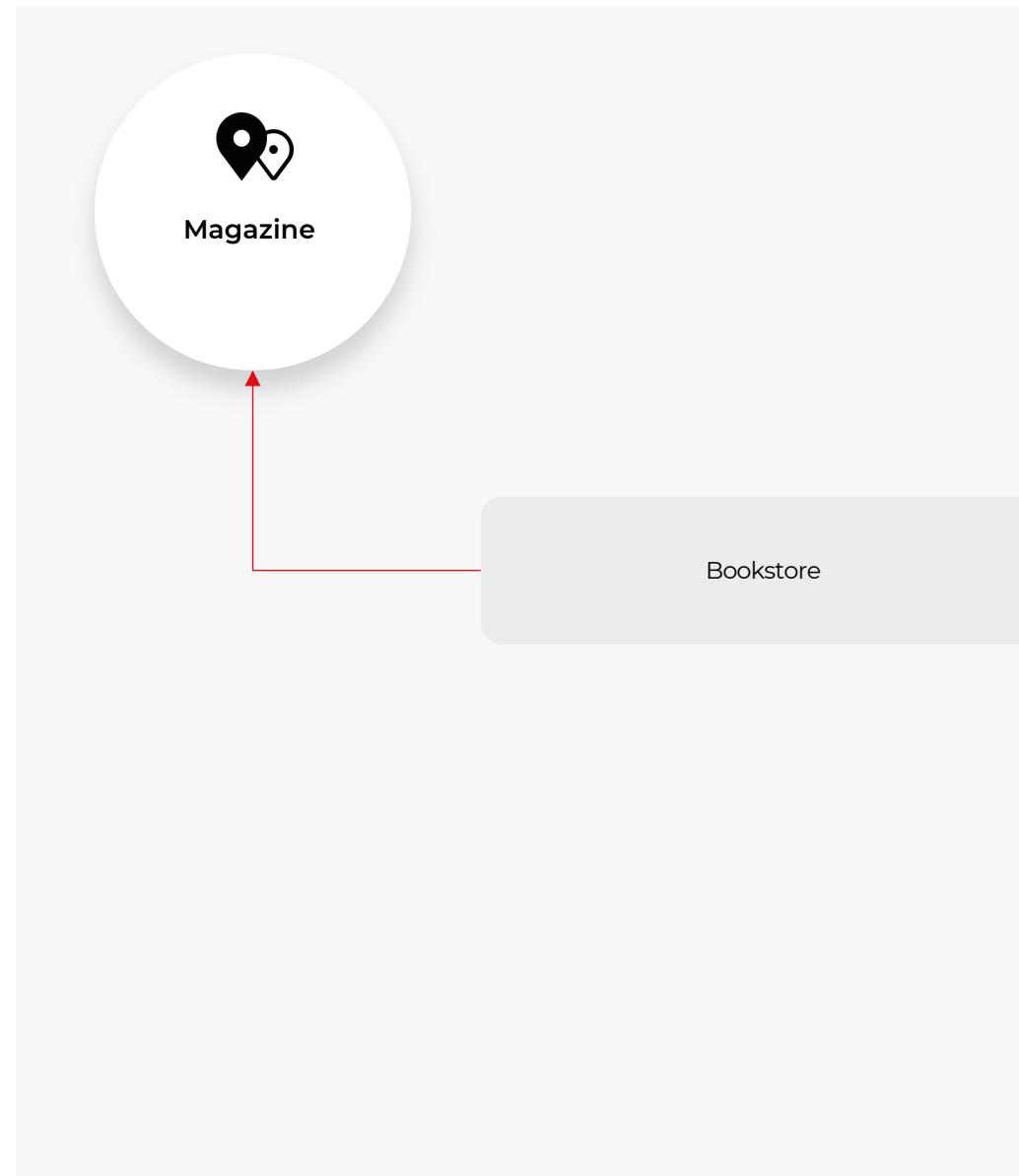
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Bookstore

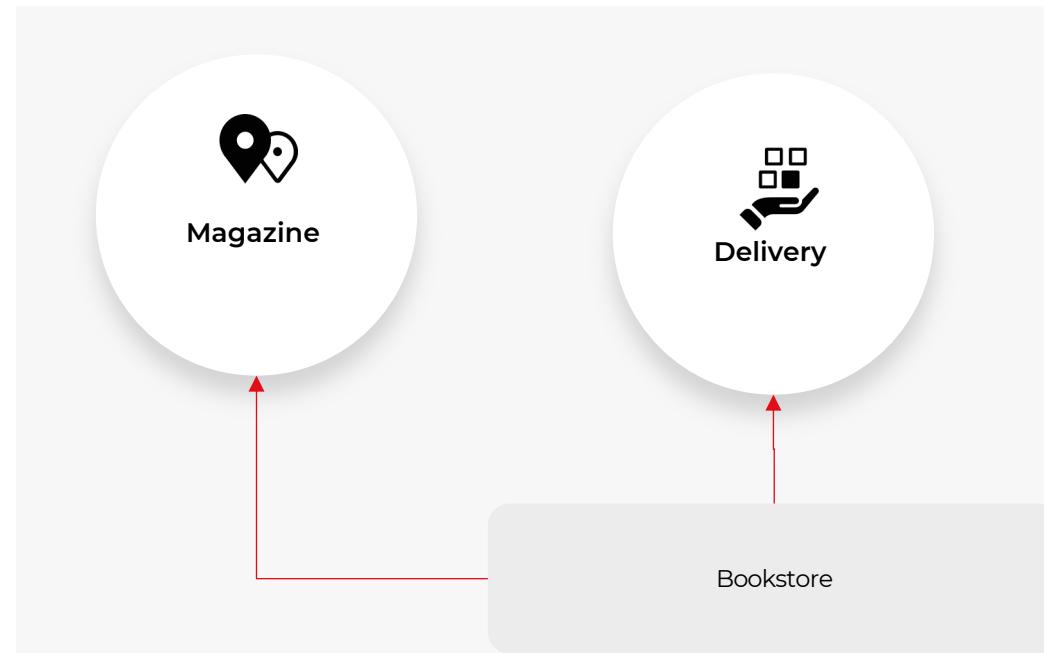
# 1. Apps

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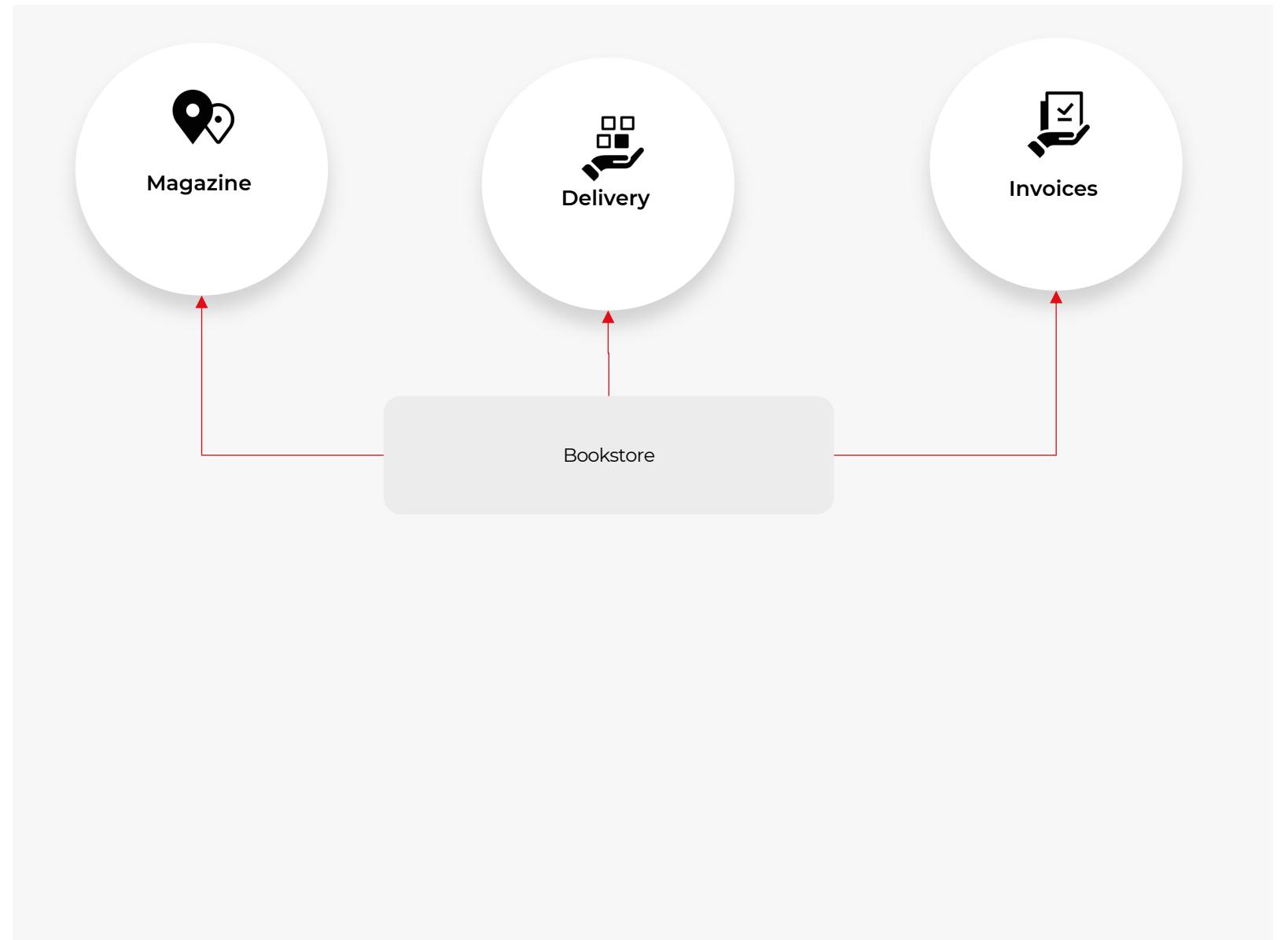


# 1. Apps

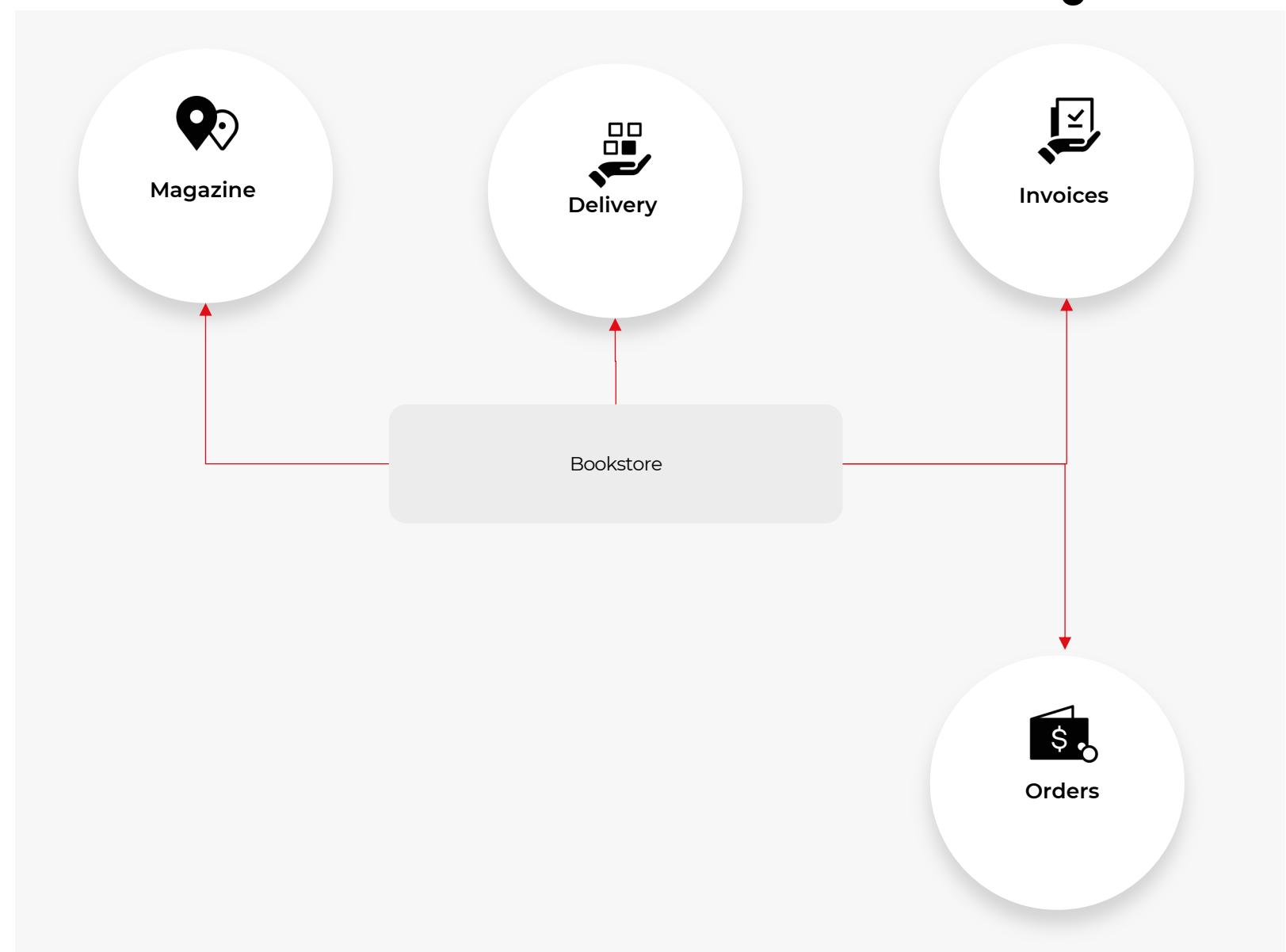
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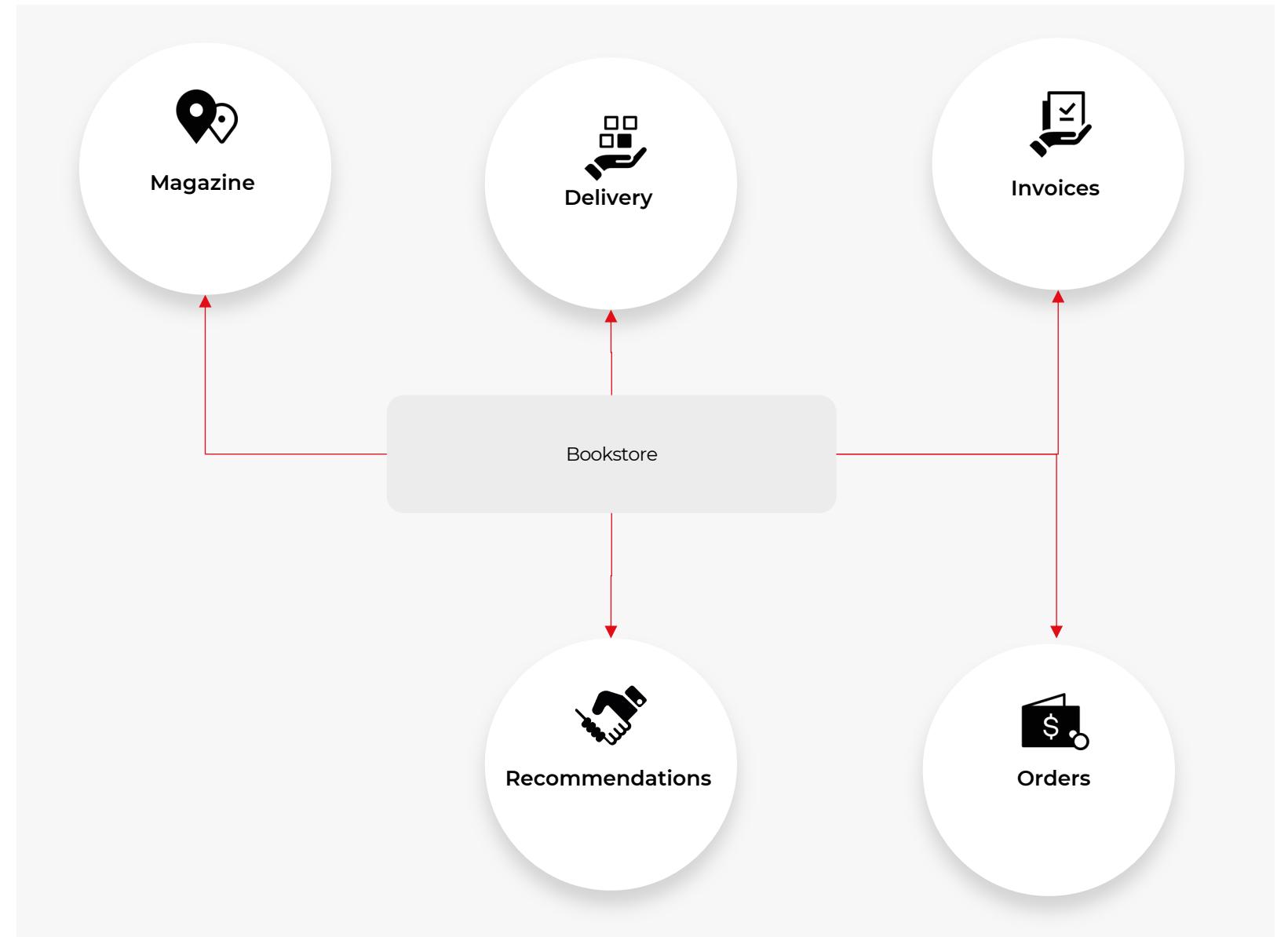
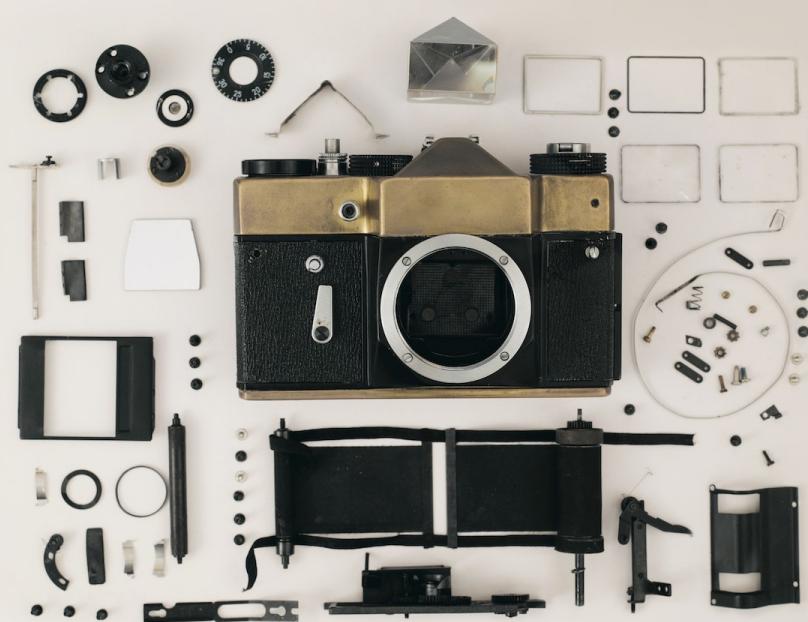
# 1. Apps



# 1. Apps

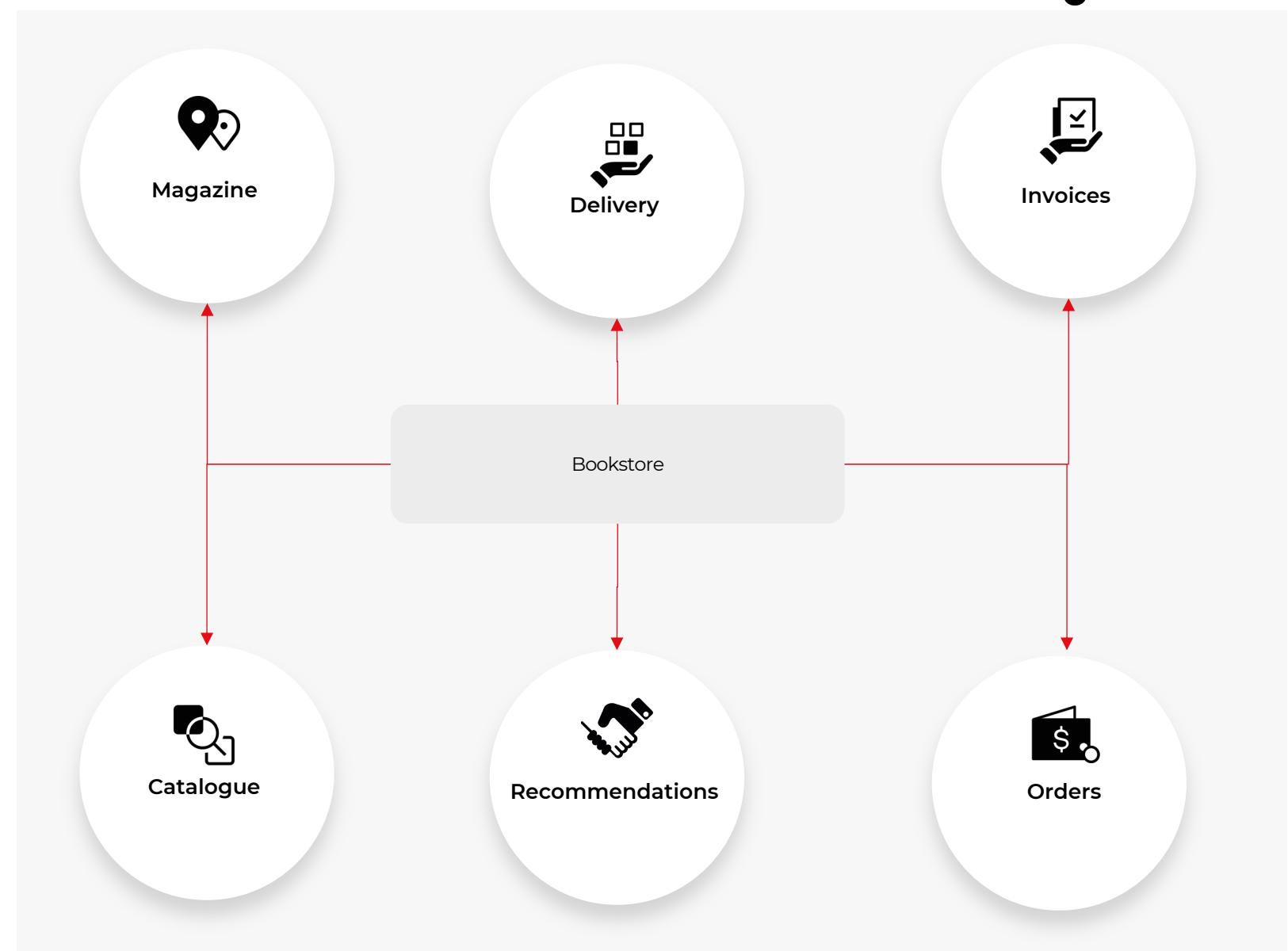


# 1. Apps



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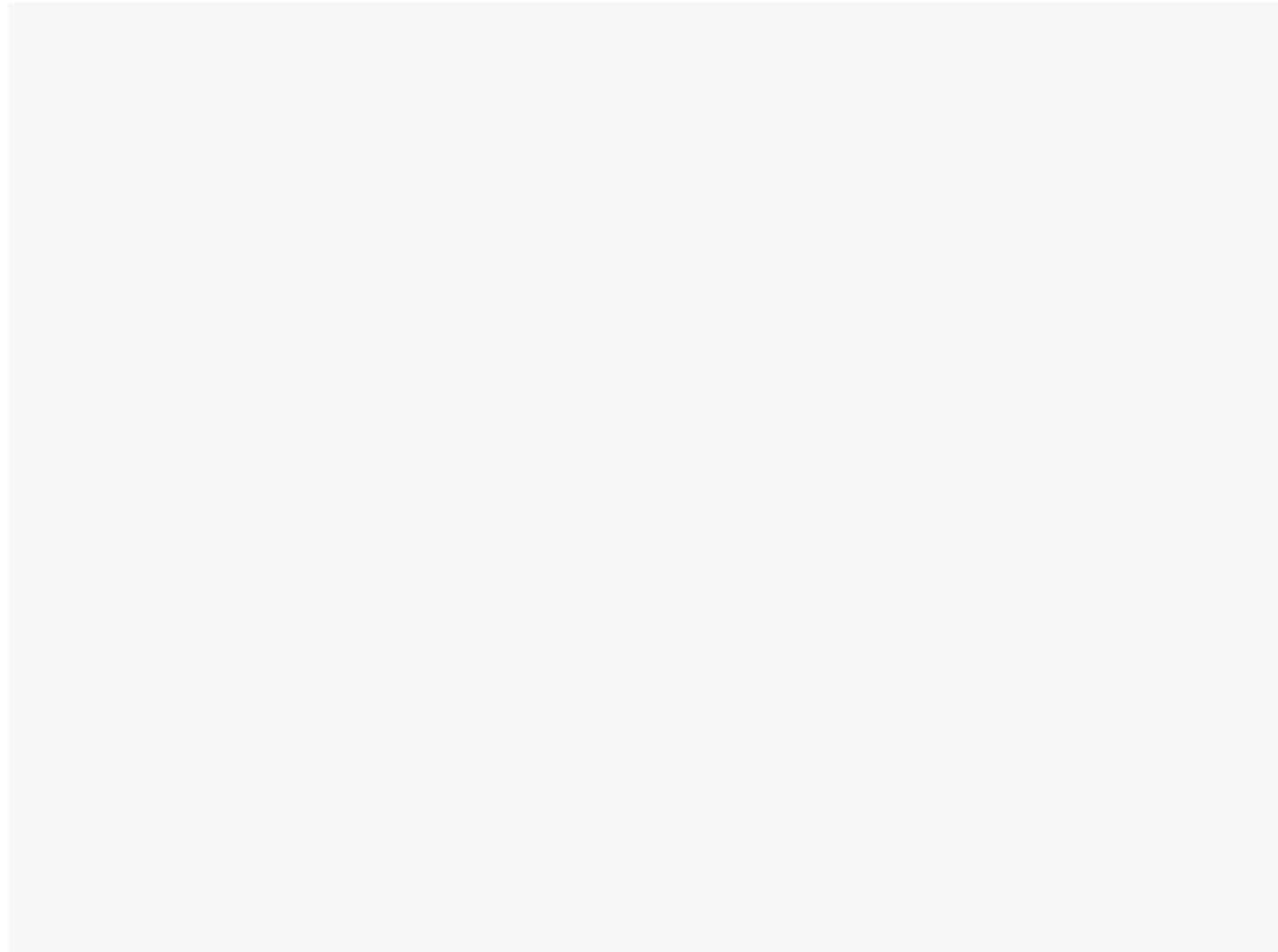
# 1. Apps



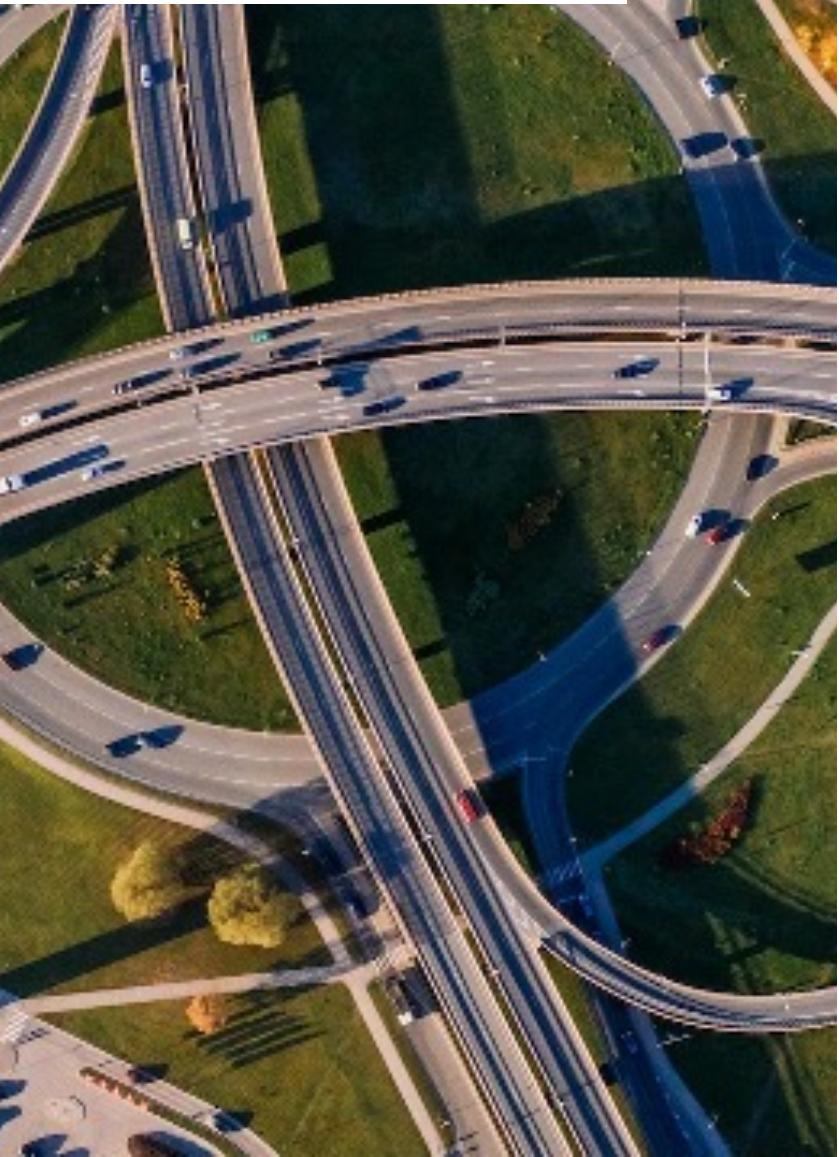
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## 2. Routing

## 2. Routing



## 2. Routing



<https://ddeby.pl/about>

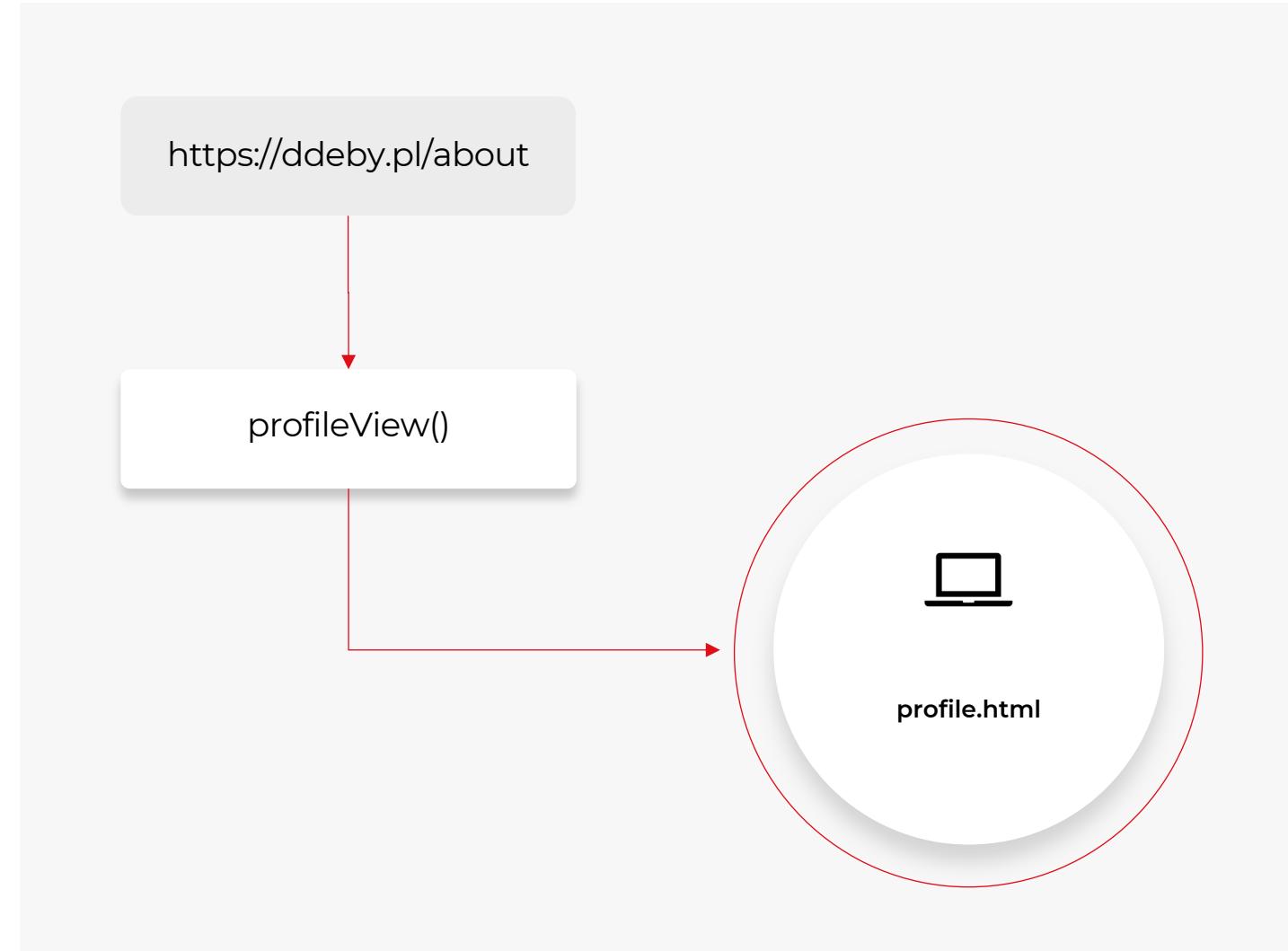
## 2. Routing



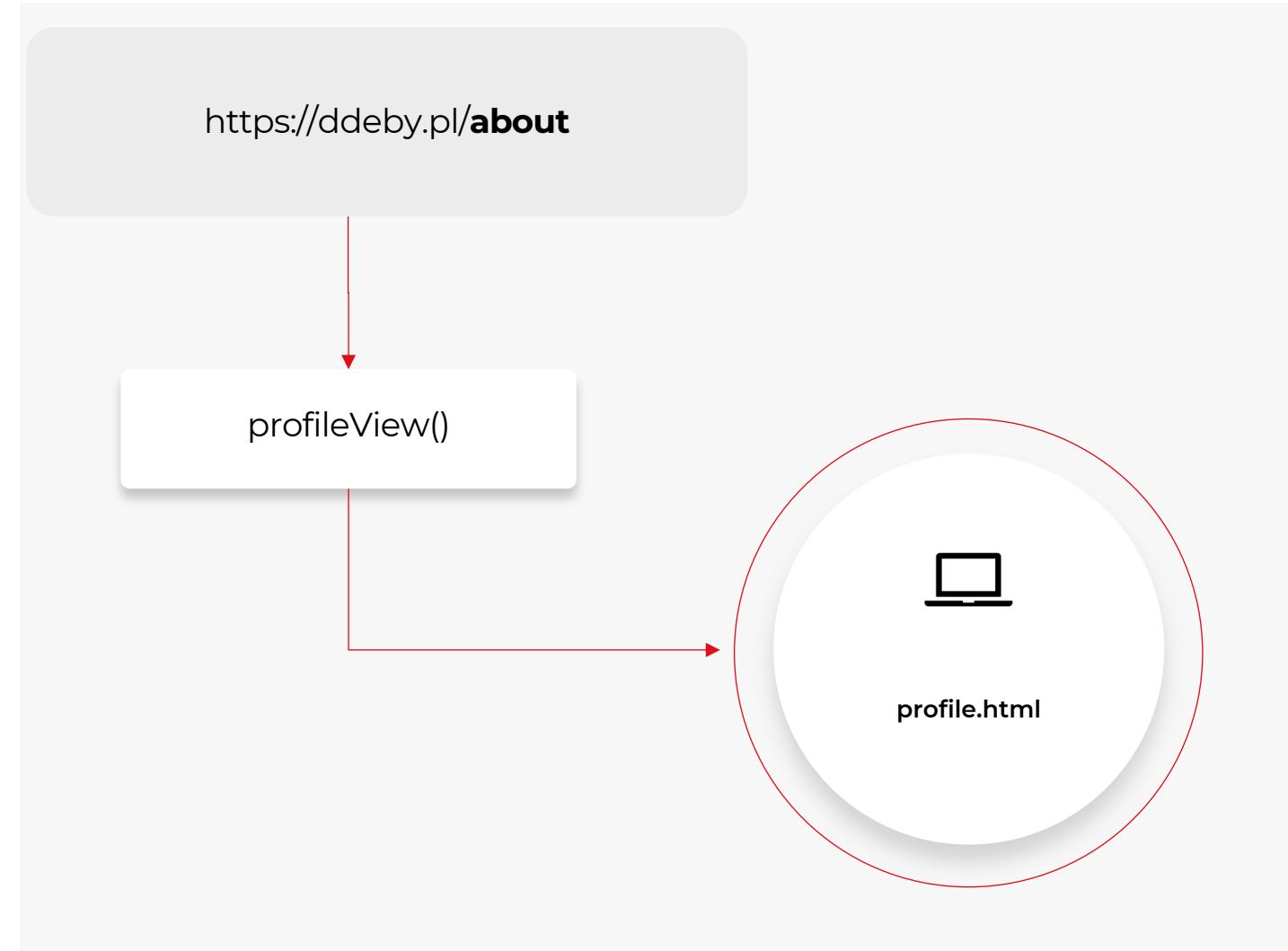
`https://ddeby.pl/about`

`profileView()`

## 2. Routing



## 2. Routing



## 2. Routing



```
from django.urls import path
from . import views

urlpatterns = [
    path("profile/", views.profileView)
]
```



### 3. Views

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### 3. Views



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### 3. Views



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<https://ddeby.pl/about>

### 3. Views

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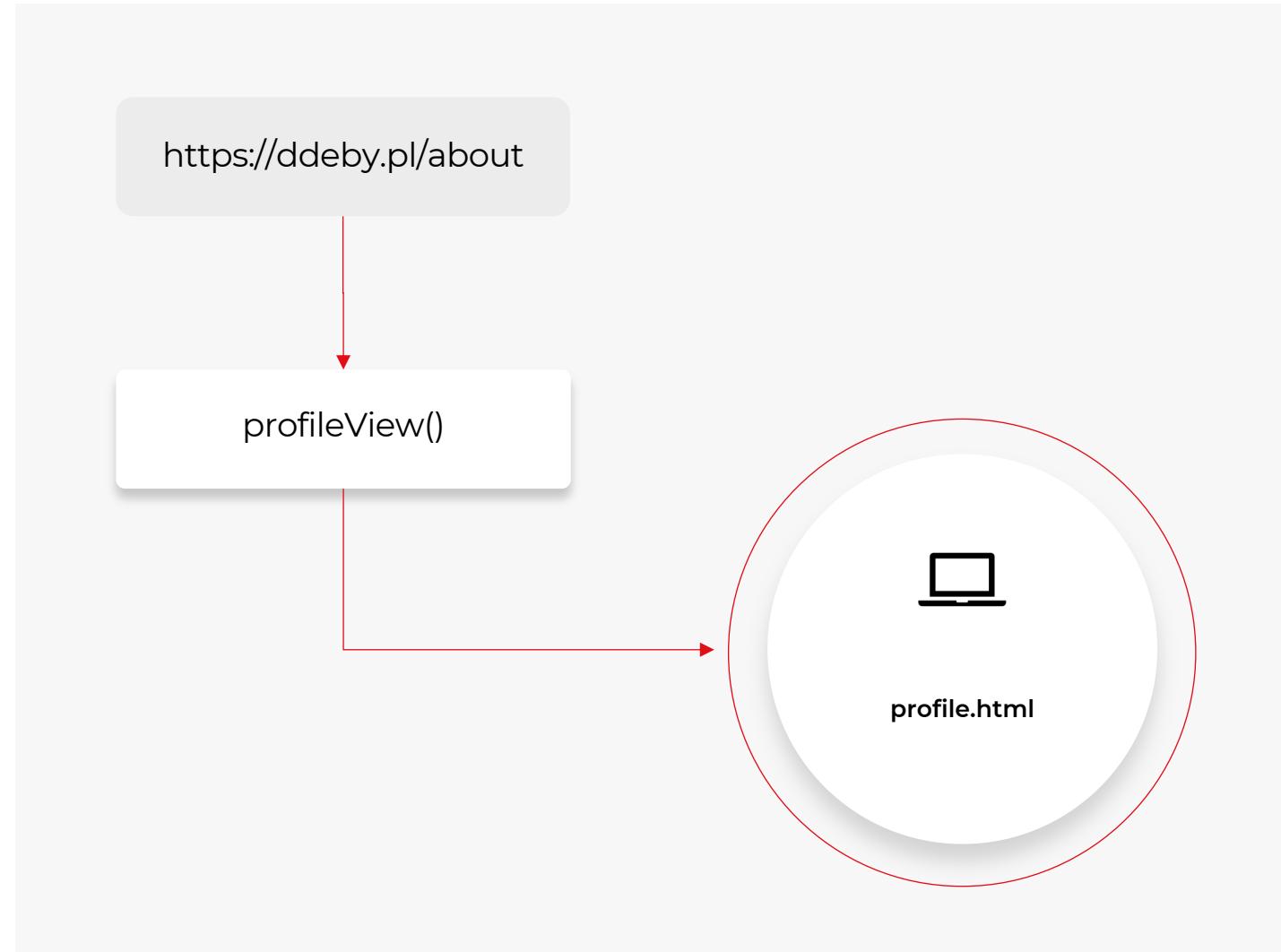


<https://ddeby.pl/about>

profileView()

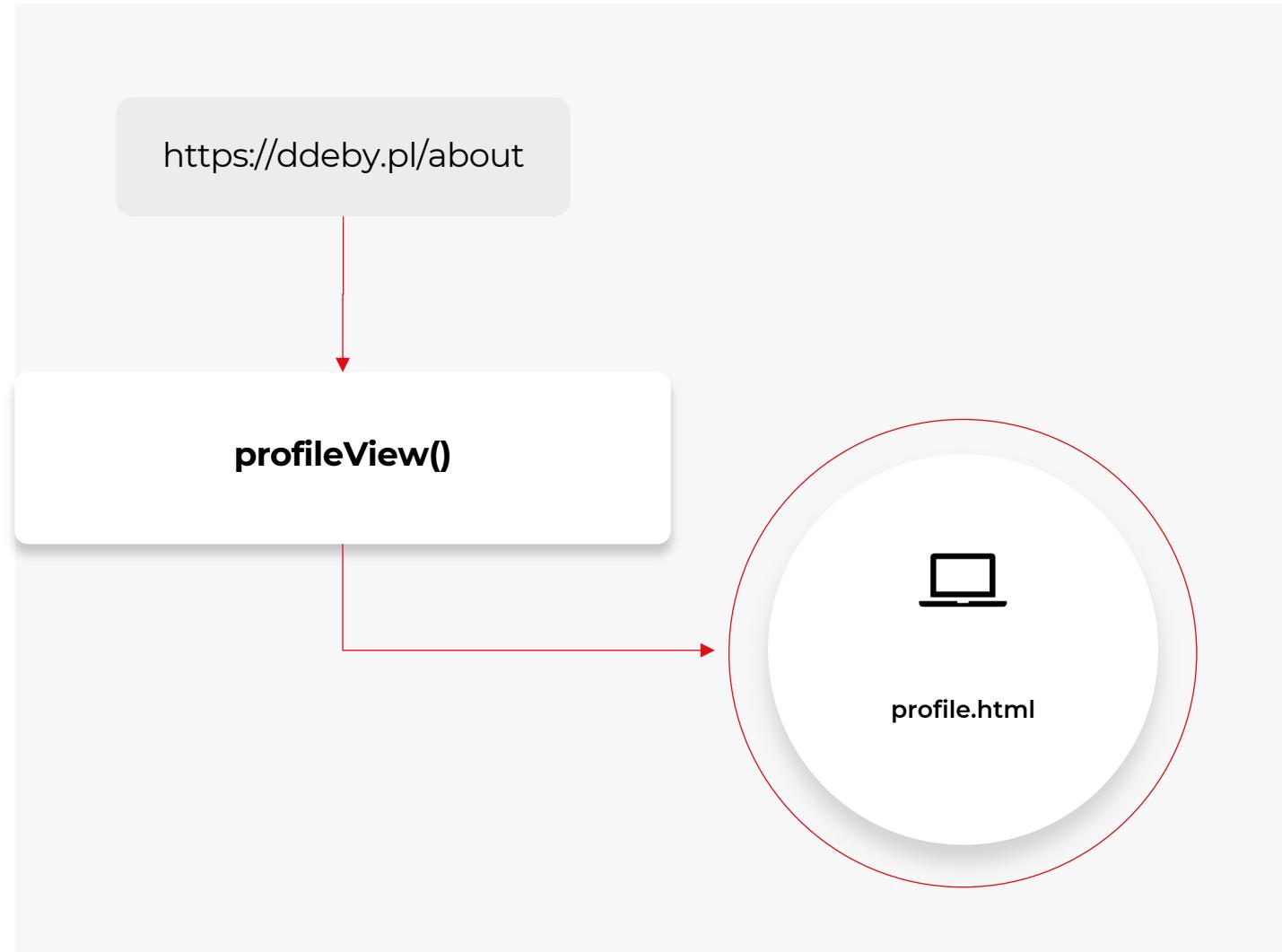
### 3. Views

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### 3. Views

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## 3. Views

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```
def profileView(request):  
    user = getUser()  
    return render(request, "profile.html", {"user":  
        user})
```

## 3. Views

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```
class ProfileView(View):  
    def get(self, request):  
        user = getUser()  
        return render(request, "profile.html",  
        {"user": user})
```

## 3. Views

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```
class ProfileView(View):
    def get(self, request):
        user = getUser()
        return render(request, "profile.html",
{"user": user})

    def post(self, request):
        pass
```

### 3. Views



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### 3. Views



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```
class MainPageView(TemplateView):  
    template_name = "main_page.html"
```

### 3. Views



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```
class MainPageView(TemplateView):  
    template_name = "main_page.html"  
  
class GameDetailView(DetailView):  
    model = Game
```

## 3. Views

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```
class MainPageView(TemplateView):  
    template_name = "main_page.html"  
  
class GameDetailView(DetailView):  
    model = Game  
  
class GameListView(ListView):  
    model = Game
```

## 3. Views



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```
class MainPageView(TemplateView):  
    template_name = "main_page.html"  
  
class GameDetailView(DetailView):  
    model = Game  
  
class GameListView(ListView):  
    model = Game  
  
class GameCreateView(CreateView):  
    model = Game  
    fields = '__all__'
```

## 3. Views



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```
class MainPageView(TemplateView):  
    template_name = "main_page.html"  
  
class GameDetailView(DetailView):  
    model = Game  
  
class GameListView(ListView):  
    model = Game  
  
class GameCreateView(CreateView):  
    model = Game  
    fields = '__all__'  
  
class GameCreateView(UpdateView):  
    model = Game  
    fields = '__all__'
```

### 3. Views

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**functionBased  
vs  
classBased**

# **Function based views**

# Function based views



---

**Easy to start**

# Function based views



**Easy to start**



**Examples in  
documentation**

# Function based views



**Easy to start**



**Examples in  
documentation**



**Easy to debug**

# Class based views

# Class based views



---

**Easier to maintain**

# Class based views



Easier to maintain



Inheritance

# Class based views



Easier to maintain



Inheritance



Predefined classes

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# Learn both!

12/2022

```
send_form_email.php
HTML
css
fonts
skins
custom.css
ie.css
theme.css
theme-animate.css
theme-blog.css
theme-elements.css
theme-shop.css
chimp

80
81     return array(
82         'code' => $captcha_config['code'],
83         'image_src' => $image_src
84     );
85 }
86
87
88 if( !function_exists('hex2rgb') ) {
89     function hex2rgb($hex_str, $return_string = false, $separator = ',') {
90         $hex_str = preg_replace("/[^0-9A-Fa-f]/", '', $hex_str); // Gets a proper hex string
91         $rgb_array = array();
92         if( strlen($hex_str) == 6 ) {
93             $color_val = hexdec($hex_str);
94             $rgb_array['r'] = 0xFF & ($color_val >> 0x10);
95             $rgb_array['g'] = 0xFF & ($color_val >> 0x8);
96             $rgb_array['b'] = 0xFF & $color_val;
97         } elseif( strlen($hex_str) == 3 ) {
98             $rgb_array['r'] = hexdec(str_repeat(substr($hex_str, 0, 1), 2));
99             $rgb_array['g'] = hexdec(str_repeat(substr($hex_str, 1, 1), 2));
100            $rgb_array['b'] = hexdec(str_repeat(substr($hex_str, 2, 1), 2));
101        } else {
102            return null;
103        }
104    }
}
```

## 4. Template Language

## 4. Template language

```
'DOCUM  
age_src  
fig);  
  
rgb') ) {  
    str, $return_string = false, $separator = ',',  
    place("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
);  
    == 6 ) {  
        dec($hex_str);  
        = 0xFF & ($color_val >> 0x10);  
        = 0xFF & ($color_val >> 0x8);  
        _str) == 3 ) {  
            hexdec(str_repeat(substr($hex_str, 0, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 1, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 2, 1), 2))  
            implode($separator, $rgb)
```

## 4. Template language

```
'DOCUM  
age_src  
fig);  
  
rgb') ) {  
str, $return_string = false, $separator = ',',  
lace("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
);  
) == 6 ) {  
dec($hex_str);  
= 0xFF & ($color_val >> 0x10);  
= 0xFF & ($color_val >> 0x8);  
= 0xFF & $color_val;  
_str) == 3 ) {  
hexdec(str_repeat(substr($hex_str, 0, 1), 2)  
hexdec(str_repeat(substr($hex_str, 1, 1), 2)  
hexdec(str_repeat(substr($hex_str, 2, 1), 2))  
implode($separator, $reh
```

```
<!-- Variables -->  
{ { variable } }
```

# 4. Template language

```
rgb') ) {  
    str, $return_string = false, $separator = ',',  
    place("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
    ) == 6 ) {  
        dec($hex_str);  
        = 0xFF & ($color_val >> 0x10);  
        = 0xFF & ($color_val >> 0x8);  
        _str) == 3 ) {  
            hexdec(str_repeat(substr($hex_str, 0, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 1, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 2, 1), 2))  
            implode($separator, $rep)
```

```
'DOCUM  
age_src  
fig);
```

```
<!-- Variables -->  
{ { variable } }
```

```
<!-- Tags -->  
{ % tags % }
```

## 4. Template language

```
rgb') ) {  
    str, $return_string = false, $separator = ',',  
    place("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
    ) == 6 ) {  
        dec($hex_str);  
        = 0xFF & ($color_val >> 0x10);  
        = 0xFF & ($color_val >> 0x8);  
        _str) == 3 ) {  
            hexdec(str_repeat(substr($hex_str, 0, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 1, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 2, 1), 2))  
            implode($separator, $rep)
```

```
'DOCUM  
age_src  
fig);
```

```
<!-- Variables -->  
{ { variable } }
```

```
<!-- Tags -->  
{ % tags 1 % }
```

## 4. Template language

```
rgb') ) {  
    str, $return_string = false, $separator = ',',  
    place("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
    ) == 6 ) {  
        dec($hex_str);  
        = 0xFF & ($color_val >> 0x10);  
        = 0xFF & ($color_val >> 0x8);  
        _str) == 3 ) {  
            hexdec(str_repeat(substr($hex_str, 0, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 1, 1), 2))  
            hexdec(str_repeat(substr($hex_str, 2, 1), 2))  
            implode($separator, $rep)
```

```
'DOCUM  
age_src  
fig);
```

```
<!-- Variables -->  
{ { variable } }
```

```
<!-- Tags -->  
{ % tags number=1 % }
```

## 4. Template language

```
rgb') ) {  
str, $return_string = false, $separator = ',  
lace("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
) == 6 ) {  
dec($hex_str);  
= 0xFF & ($color_val >> 0x10);  
= 0xFF & ($color_val >> 0x8);  
_str) == 3 ) {  
hexdec(str_repeat(substr($hex_str, 0, 1), 2)  
hexdec(str_repeat(substr($hex_str, 1, 1), 2)  
hexdec(str_repeat(substr($hex_str, 2, 1), 2))  
implode($separator, $rep)
```

```
'DOCUM  
age_src  
fig);
```

```
<!-- Variables -->  
{ { variable } }
```

```
<!-- Tags -->  
{ % tags % }
```

```
<!-- if -->  
{ % if person.is_active % }  
    You're in  
{ % endif % }
```

## 4. Template language

```
rgb') ) {  
    str, $return_string = false, $separator = ','  
    place("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
    == 6 ) {  
        dec($hex_str);  
        = 0xFF & ($color_val >> 0x10);  
        = 0xFF & ($color_val >> 0x8);  
        _str) == 3 ) {  
            hexdec(str_repeat(substr($hex_str, 0, 1), 2)  
            hexdec(str_repeat(substr($hex_str, 1, 1), 2)  
            hexdec(str_repeat(substr($hex_str, 2, 1), 2)  
            implode($separator, $rep)
```

```
'DOCUM  
age_src  
fig);
```

```
<!-- Variables -->  
{ { variable } }
```

```
<!-- Tags -->  
{ % tags % }
```

```
<!-- if -->  
{ % if person.is_active %}  
    You're in  
{ % endif %}
```

```
<!-- for -->  
{ % for person in persons %}  
    { { person } }  
{ % endif %}
```

## 4. Template language

```
'DOCUMENTATION'
age_src
fig);

rgb') ) {
    str, $return_string = false, $separator = ',',
    place("/[^0-9A-Fa-f]/", '', $hex_str); // Get
) == 6 ) {
    dec($hex_str);
    = 0xFF & ($color_val >> 0x10);
    = 0xFF & ($color_val >> 0x8);
    _str) == 3 ) {
        hexdec(str_repeat(substr($hex_str, 0, 1), 2))
        hexdec(str_repeat(substr($hex_str, 1, 1), 2))
        hexdec(str_repeat(substr($hex_str, 2, 1), 2))
    implode($separator, $repb
```

```
{ % include "banner.html" % }
```

## 4. Template language

```
'DOCUMENTATION'
age_src
fig);
```

```
{% include "banner.html" %}
```

```
{% extends 'ceneo/base.html' %}
```

```
rgb') ) {
    str, $return_string = false, $separator = ',',
    place("/[^0-9A-Fa-f]/", '', $hex_str); // Get
)
) == 6 ) {
    dec($hex_str);
    = 0xFF & ($color_val >> 0x10);
    = 0xFF & ($color_val >> 0x8);
    _str) == 3 ) {
        hexdec(str_repeat(substr($hex_str, 0, 1), 2))
        hexdec(str_repeat(substr($hex_str, 1, 1), 2))
        hexdec(str_repeat(substr($hex_str, 2, 1), 2))
    implode($separator, $rep)
```

## 4. Template language

```
{% include "banner.html" %}
```

```
{% extends 'ceneo/base.html' %}
```

```
{% block main %}  
{%- endblock %}
```

## 4. Template language

```
{% include "banner.html" %}
```

```
{% extends 'ceneo/base.html' %}
```

```
{% block main %}
```

```
{% endblock %}
```

```
{% load static %}
```

## 4. Template language

```
    'DOCUM  
age_src  
fig);  
  
rgb') ) {  
str, $return_string = false, $separator = ',',  
lace("/[^0-9A-Fa-f]/", '', $hex_str); // Get  
) == 6 ) {  
dec($hex_str);  
= 0xFF & ($color_val >> 0x10);  
= 0xFF & ($color_val >> 0x8);  
_str) == 3 ) {  
hexdec(str_repeat(substr($hex_str, 0, 1), 2)  
hexdec(str_repeat(substr($hex_str, 1, 1), 2)  
hexdec(str_repeat(substr($hex_str, 2, 1), 2))  
implode($separator, $rep
```

```
{% include "banner.html" %}
```

```
{% extends 'ceneo/base.html' %}
```

```
{% block main %}  
{% endblock %}
```

```
{% load static custom_tags %}
```

# 5. Models

## 5. Models



```
class Article(models.Model) :  
    title = models.CharField()  
    description = models.TextField()
```

# 5. Models

title	description
How to write blog in 30 minutes	Lorem ipsum dolor sit amet
Senior python developer salary	Lorem ipsum dolor sit amet
How to get first job as a programmer	Read ddeby.pl
How to learn Django	Read ddeby.pl
How to learn Python	Read ddeby.pl
How to solve sorting problem	Read ddeby.pl
How to write Django admin	Read ddeby.pl

```
class Article(models.Model):  
    title = models.CharField()  
    description = models.TextField()
```

# 6. Django ORM

12/2022

## 6. Django ORM

```
Article.objects.all()
```

## 6. Django ORM

```
Article.objects.all()  
Article.objects.get(pk=1)
```

## 6. Django ORM

```
Article.objects.all()  
Article.objects.get(pk=1)  
Article.objects.filter()
```

# 6. Django ORM

```
Article.objects.all()  
  
Article.objects.get(pk=1)  
  
Article.objects.filter(is_active=True)
```



# 6. Django ORM

```
Article.objects.all()  
  
Article.objects.get(pk=1)  
  
Article.objects.filter()  
  
Article.objects.exclude()
```

# 6. Django ORM

```
Article.objects.all()  
  
Article.objects.get(pk=1)  
  
Article.objects.filter(is_active=True)  
  
Article.objects.exclude(is_active=False)
```

## Select Wpis to change

[2019](#) [2020](#) [2021](#) [2022](#)Action:   0 of 36 selected

	PK	TYTUŁ	AKTYWNY	OPUBLIKOWANE WPISY	TAGI
<input type="checkbox"/>	39	Jak dogadać się z biznesem jako programista			<ul style="list-style-type: none"><li>▪ Poradnik</li></ul>
<input type="checkbox"/>	38	Wykresy			<ul style="list-style-type: none"><li>▪ Poradnik</li><li>▪ Architektura</li></ul>
<input type="checkbox"/>	37	Zdarzenia i komendy, czyli event i commands w DDD			<ul style="list-style-type: none"><li>▪ Poradnik</li><li>▪ Architektura</li></ul>
<input type="checkbox"/>	35	Coupling, czyli co znaczy ciekna logika			<ul style="list-style-type: none"><li>▪ Poradnik</li></ul>

## FILTER

By aktywny

All

Yes

No

# 7. Admin panel

## 7. Admin

```
from django.contrib import admin  
from .models import Game  
  
admin.site.register(Game)
```

# 8. Django commands

## 8. Commands



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## 8. Commands

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```
# Creates boilerplate  
django-admin startproject <name>
```

## 8. Commands

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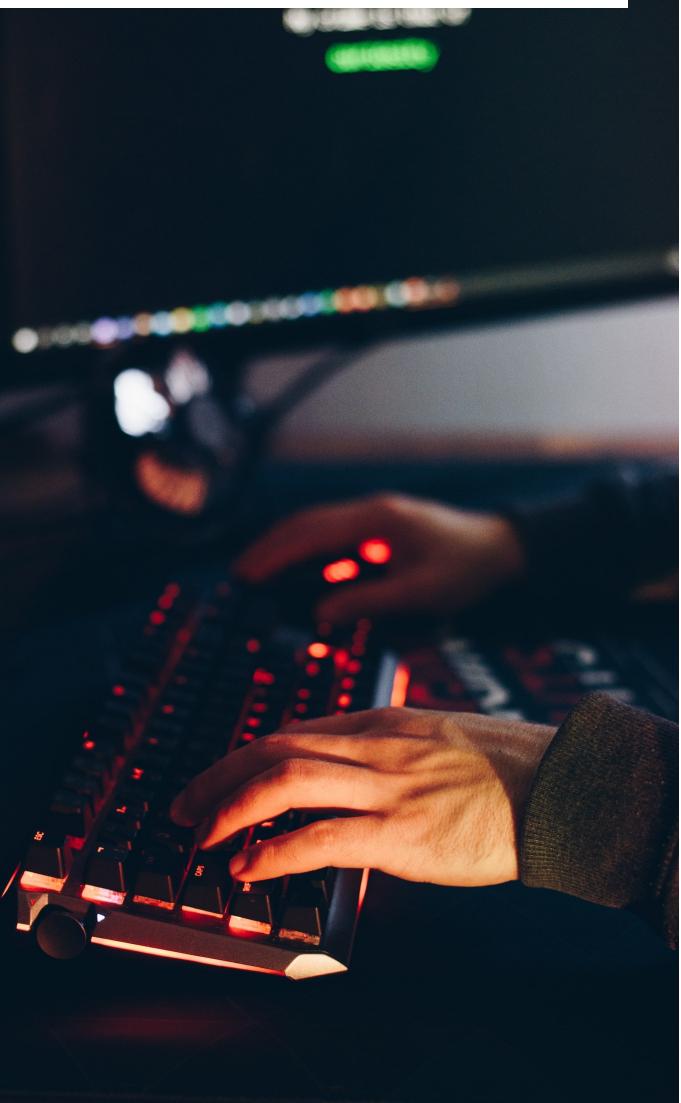


```
# Creates boilerplate  
django-admin startproject <name>
```

```
# Creates app  
python manage.py startapp <name>
```

## 8. Commands

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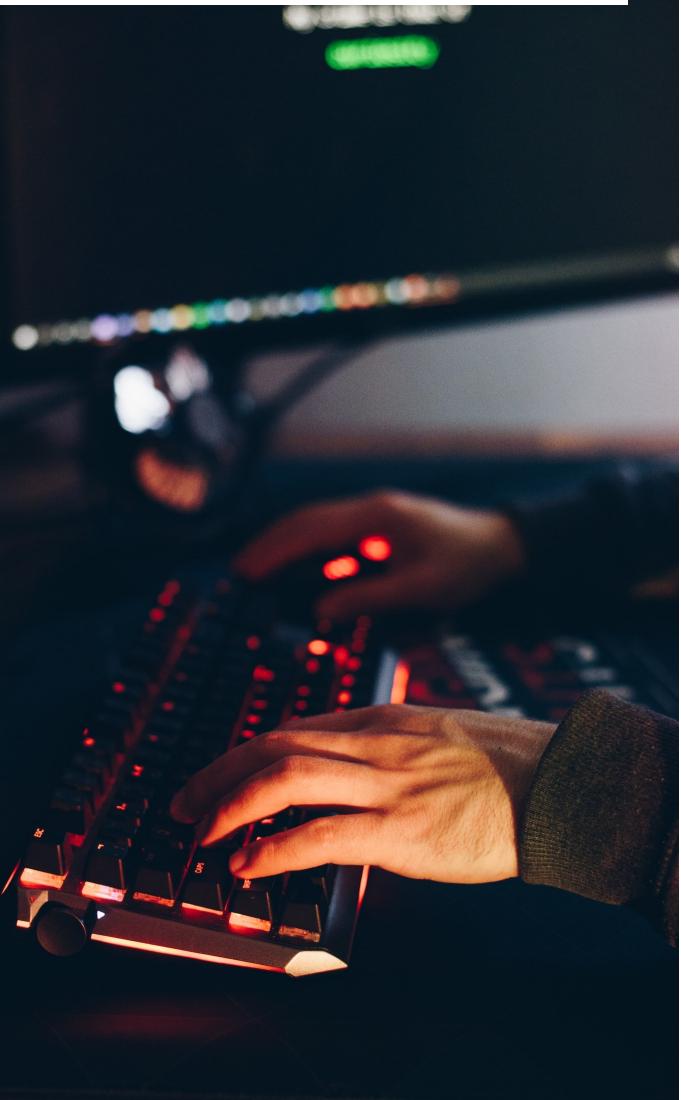
```
# Creates boilerplate  
django-admin startproject <name>
```

```
# Creates app  
python manage.py startapp <name>
```

```
# Preps database  
python manage.py makemigrations
```

## 8. Commands

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```
# Creates boilerplate  
django-admin startproject <name>
```

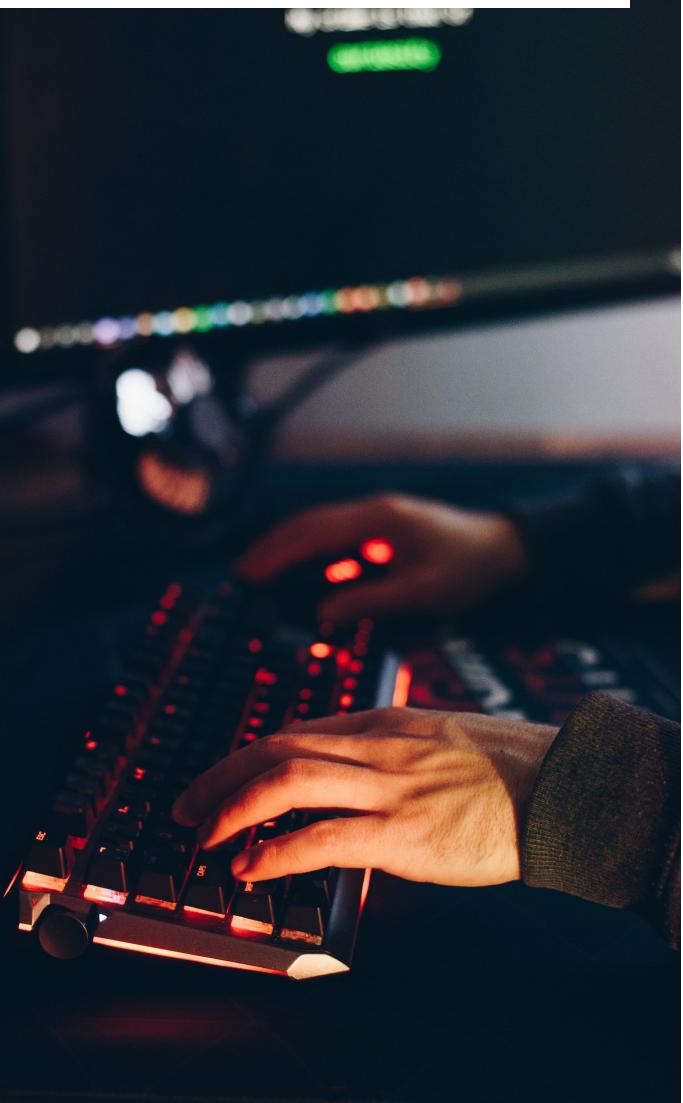
```
# Creates app  
python manage.py startapp <name>
```

```
# Preps database  
python manage.py makemigrations
```

```
# Execute migrations & update database  
python manage.py migrate
```

## 8. Commands

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```
# Creates boilerplate  
django-admin startproject <name>
```

```
# Creates app  
python manage.py startapp <name>
```

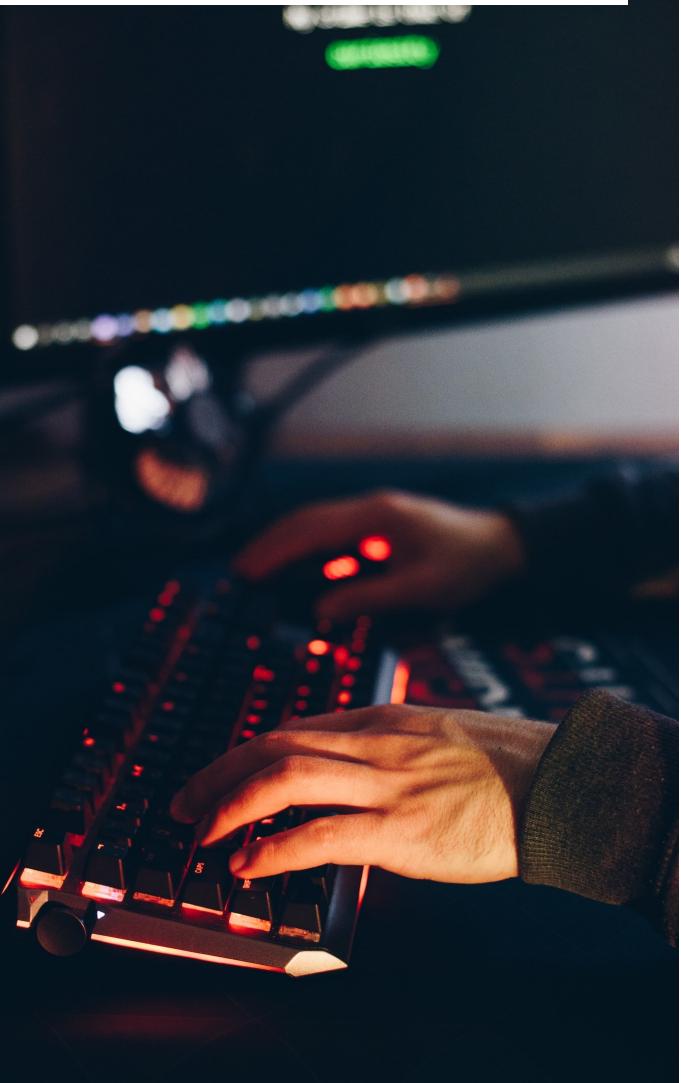
```
# Preps database  
python manage.py makemigrations
```

```
# Execute migrations & update database  
python manage.py migrate
```

```
# Creates a user with admin permissions  
python manage.py createsuperuser
```

## 8. Commands

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```
# Creates boilerplate  
django-admin startproject <name>
```

```
# Creates app  
python manage.py startapp <name>
```

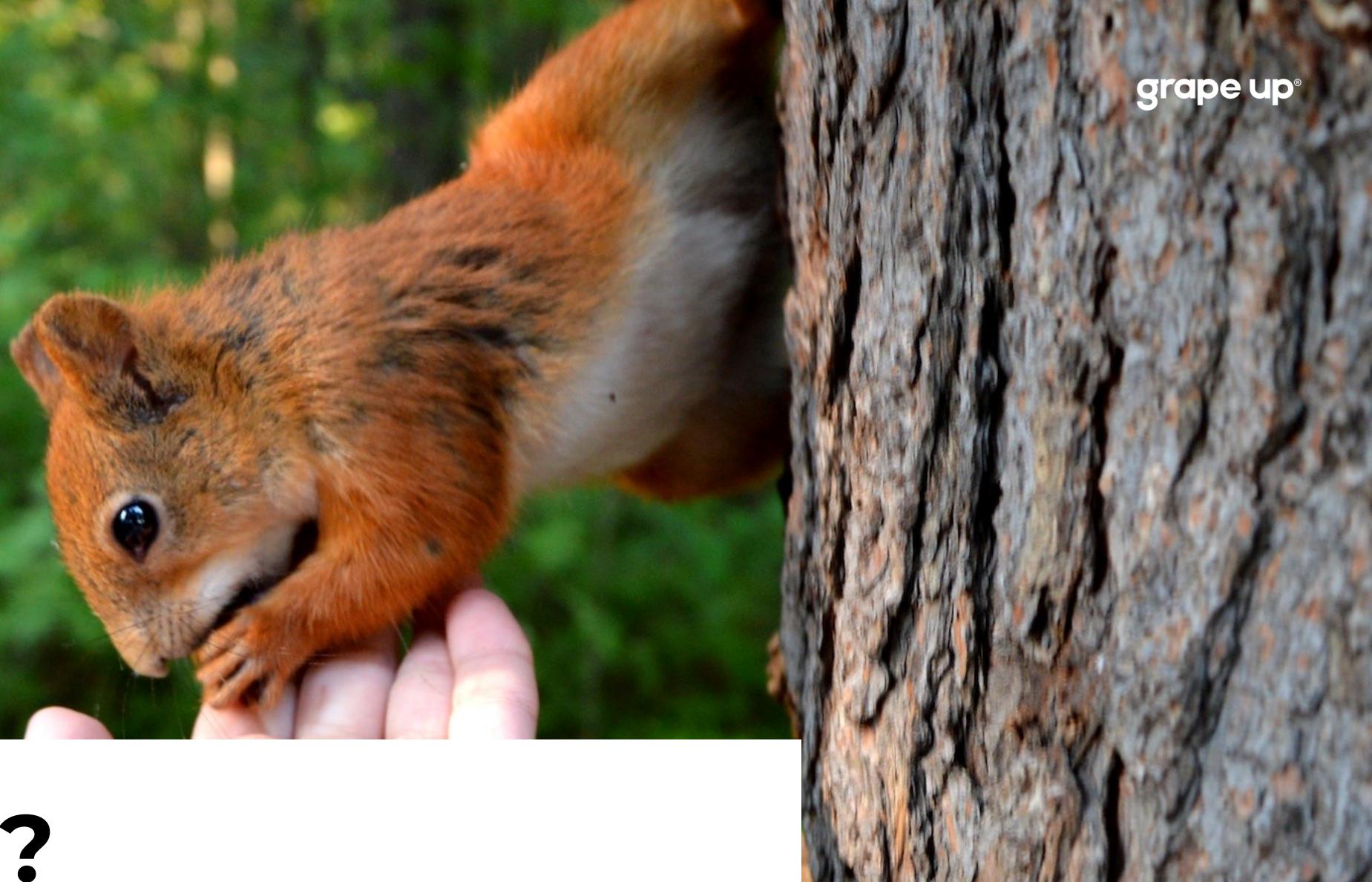
```
# Preps database  
python manage.py makemigrations
```

```
# Execute migrations & update database  
python manage.py migrate
```

```
# Creates a user with admin permissions  
python manage.py createsuperuser
```

```
# Start app  
python manage.py runserver
```

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**That's all?**

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# Blog in 8 steps?

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**Create  
project**



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# Create project



```
# Create boilerplace
django-admin startproject blog
```

# Create project



```
# Create boilerplace  
django-admin startproject blog
```

```
# Creates app  
python manage.py startapp articles
```

# Model



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```
from django.db import models

class Post(models.Model):
    title = models.CharField(max_length=255)
    body = models.TextField()
    lead = models.TextField()
```

# Views



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```
from django.views.generic import DetailView,  
ListView  
  
from articles.models import Post
```

# Views



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```
from django.views.generic import DetailView,  
ListView  
  
from articles.models import Post  
  
  
class PostListView(ListView):  
    model = Post
```

# Views



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```
from django.views.generic import DetailView,  
ListView  
  
from articles.models import Post  
  
  
class PostListView(ListView):  
    model = Post  
  
  
class PostDetailView(DetailView):  
    model = Post
```



# Routing

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```
# blog/urls.py
from django.contrib import admin
from django.urls import path, include
from django.views.generic import TemplateView
```

# Routing blog/urls.py

```
# blog/urls.py
from django.contrib import admin
from django.urls import path, include
from django.views.generic import TemplateView

urlpatterns = [
    path('', TemplateView.as_view(template_name='home_page.html')),
]
```

# Routing blog/urls.py

```
# blog/urls.py
from django.contrib import admin
from django.urls import path, include
from django.views.generic import TemplateView

urlpatterns = [
    path('', TemplateView.as_view(template_name='home_page.html')),
    path('articles/', include('articles.urls')),
]
```

# Routing blog/urls.py

```
# blog/urls.py
from django.contrib import admin
from django.urls import path, include
from django.views.generic import TemplateView

urlpatterns = [
    path('', TemplateView.as_view(template_name='home_page.html')),
    path('articles/', include('articles.urls')),
    path('admin/', admin.site.urls),
]
```

# Routing blog/urls.py

```
# articles/urls.py
from django.urls import path
from . import views

urlpatterns = []
```

# Routing articles/urls.py

```
# articles/urls.py
from django.urls import path
from . import views

urlpatterns = [
    path('', views.PostListView.as_view()),
]
```

# Routing articles/urls.py

```
# articles/urls.py
from django.urls import path
from . import views

urlpatterns = [
    path('', views.PostListView.as_view()),
    path('<int:pk>', views.PostDetailView.as_view(), name="post-detail"),
]
```

# Routing articles/urls.py



# Templates

```
<!-- blog/home_page.html -->
<html>
  <head></head>
  <body>
    <h1>This is my First project</h1>
  </body>
</html>
```

# Templates

## home\_page.html

```
<html>
  <head></head>
  <body>
    <h1>{{ post.title }}</h1>
    <p>{{ post.body }}</p>
  </body>
</html>
```

# Templates

## post\_detail.html

```
<html>
  <head></head>
  <body>
    <h1>{{ post.title }}</h1>
    <p>{{ post.body }}</p>
  </body>
</html>
```

# Templates

## post\_detail.html

```
<html>
    <head></head>
    <body>
        <ul>
            {%- for post in post_list %}
                <li>
                    <a href="{% url "post-detail" pk=post.pk %}">{{ post.title }}</a>
                    <span>{{ post.lead }}</span>
                </li>
            {% endfor %}
        </ul>
    </body>
</html>
```

# Templates post\_list.html

```
<html>
    <head></head>
    <body>
        <ul>
            {%- for post in post_list %}
                <li>
                    <a href="{% url "post-detail" pk=post.pk %}">{{ post.title }}</a>
                    <span>{{ post.lead }}</span>
                </li>
            {% endfor %}
        </ul>
    </body>
</html>
```

# Templates post\_list.html

```
<html>
    <head></head>
    <body>
        <ul>
            {%- for post in post_list %}
                <li>
                    <a href="{% url "post-detail" pk=post.pk %}">{{ post.title }}</a>
                    <span>{{ post.lead }}</span>
                </li>
            {% endfor %}
        </ul>
    </body>
</html>
```

# Templates post\_list.html

```
# articles/urls.py
from django.urls import path
from . import views

urlpatterns = [
    path('', views.PostListView.as_view()),
    path('<int:pk>', views.PostDetailView.as_view(), name="post-detail"),
]
```

# Routing articles/urls.py

```
# articles/urls.py
from django.urls import path
from . import views

urlpatterns = [
    path('', views.PostListView.as_view()),
    path('<int:pk>', views.PostDetailView.as_view(), name="post-detail"),
]
```

# Routing articles/urls.py

# Admin

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```
from django.contrib import admin  
  
from articles.models import Post  
  
admin.site.register(Post)
```

# Settings



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```
INSTALLED_APPS = [  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
    'articles.apps.ArticlesConfig', # add artciles app  
    'blog' # add "main" app  
]
```

# Settings



```
INSTALLED_APPS = [  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
    'articles.apps.ArticlesConfig', # add artciles app  
    'blog' # add "main" app  
]
```

**Run**



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# Run



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```
# Preps database  
python manage.py makemigrations
```

# Run



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```
# Prep database  
python manage.py makemigrations
```

```
# Execute migrations & update database  
python manage.py migrate
```

# Run



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```
# Prep database  
python manage.py makemigrations
```

```
# Execute migrations & update database  
python manage.py migrate
```

```
# Creates a user with admin permissions  
python manage.py createsuperuser
```

# Run



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```
# Prep database  
python manage.py makemigrations
```

```
# Execute migrations & update database  
python manage.py migrate
```

```
# Creates a user with admin permissions  
python manage.py createsuperuser
```

```
# Run project  
python manage.py runserver
```

# Simplicity

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# Is Django popular?

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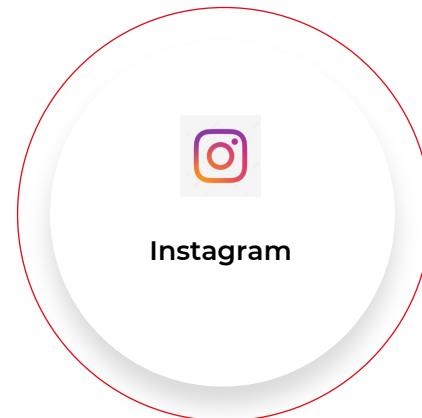
# Usage



# Usage



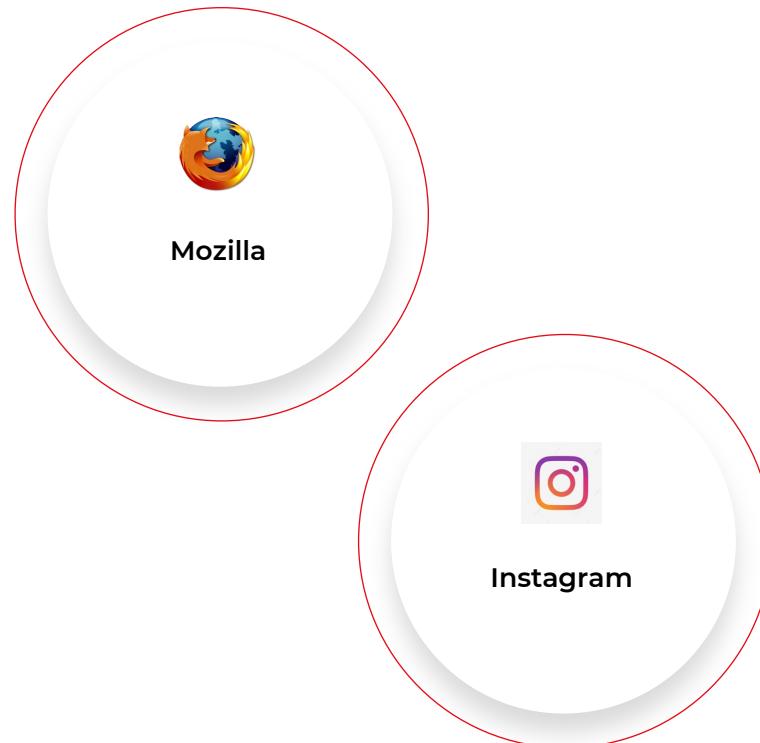
grape up®



# Usage



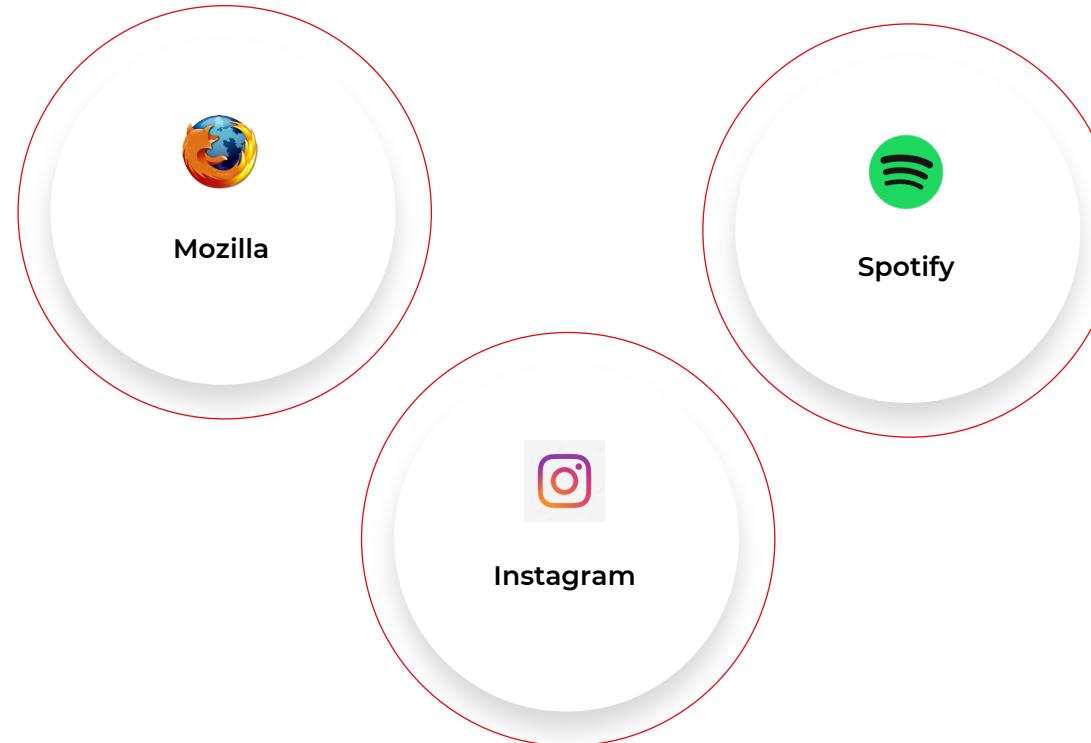
grape up®



# Usage



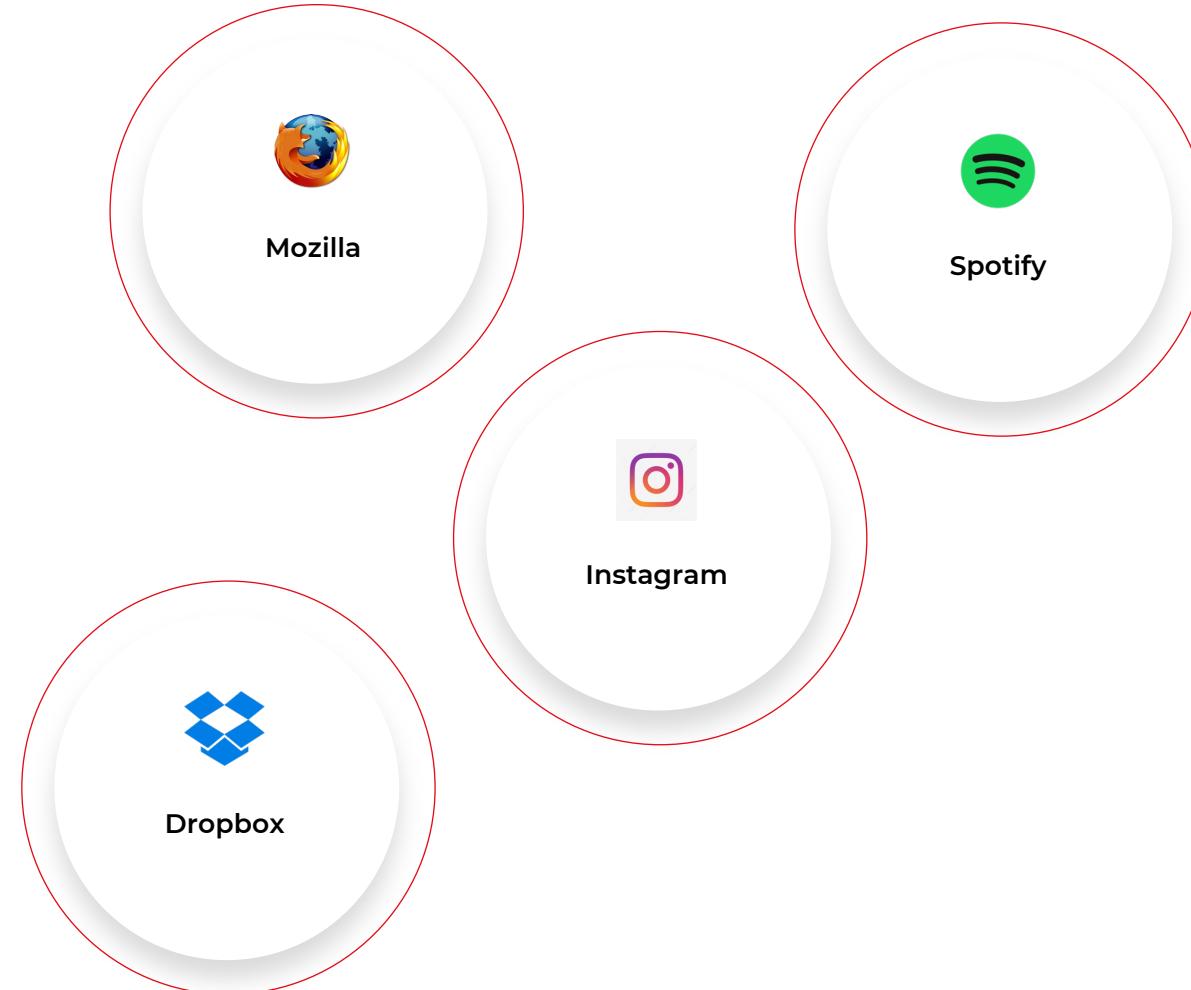
grape up®



# Usage



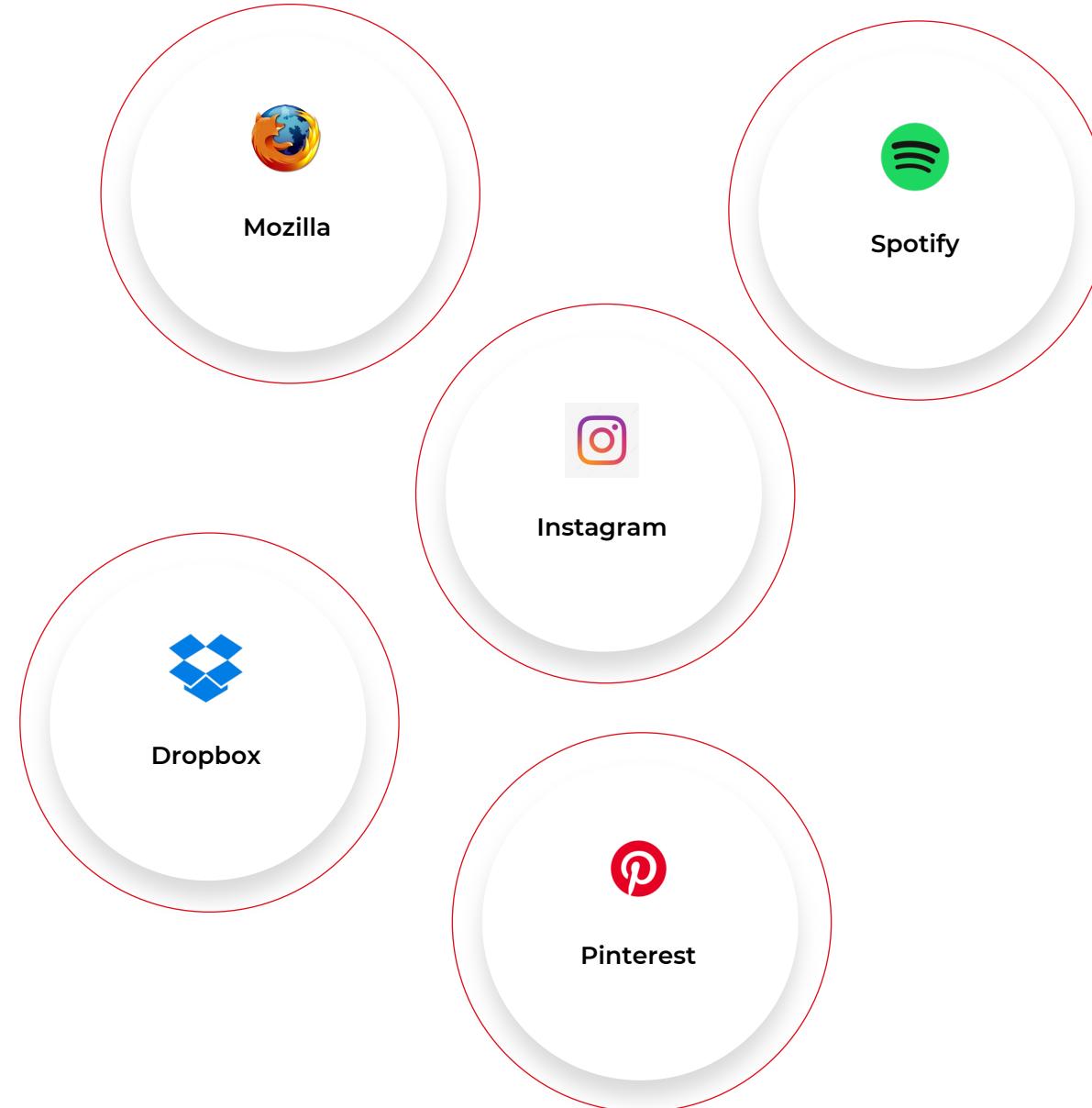
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# Usage



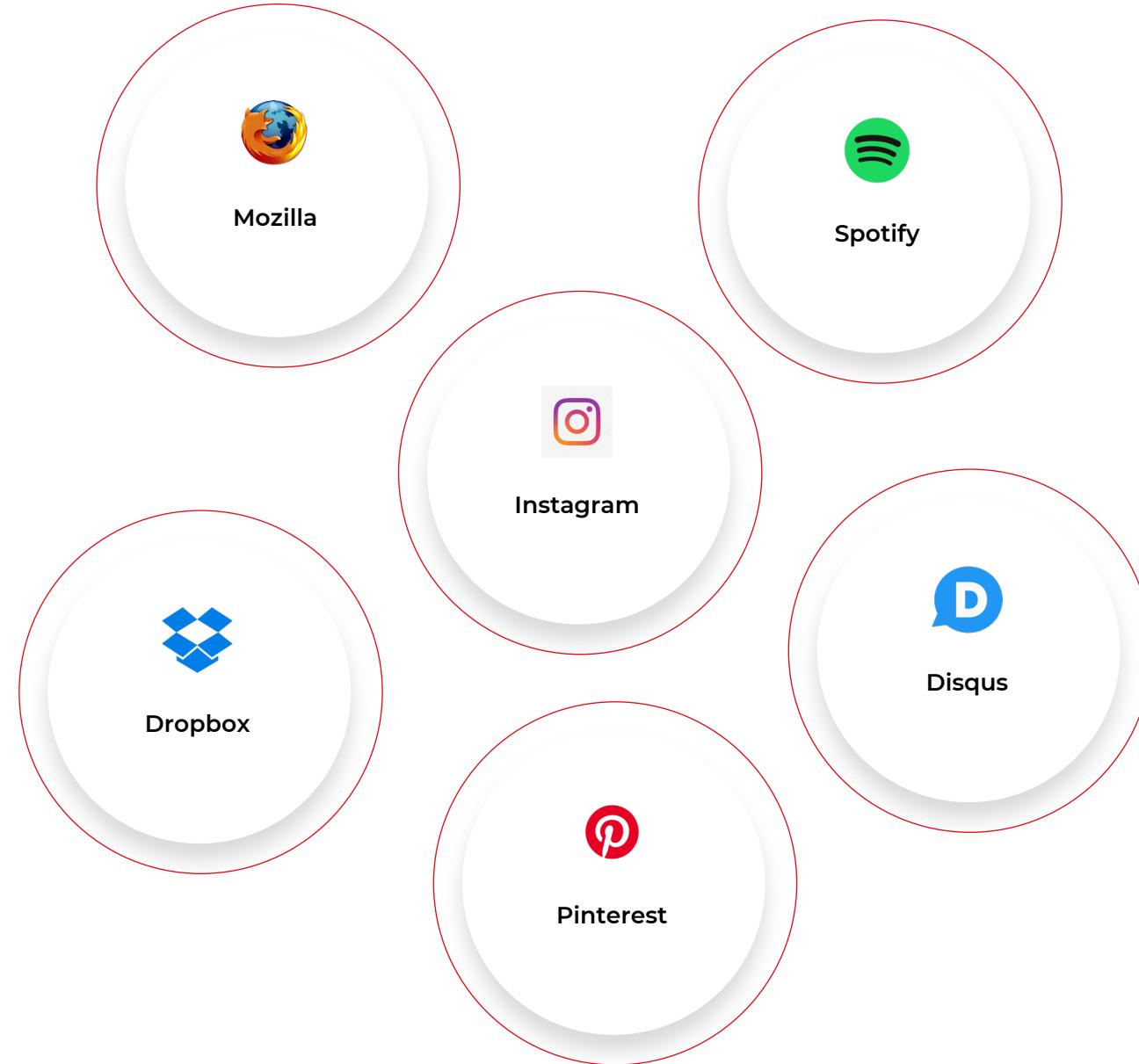
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# Usage



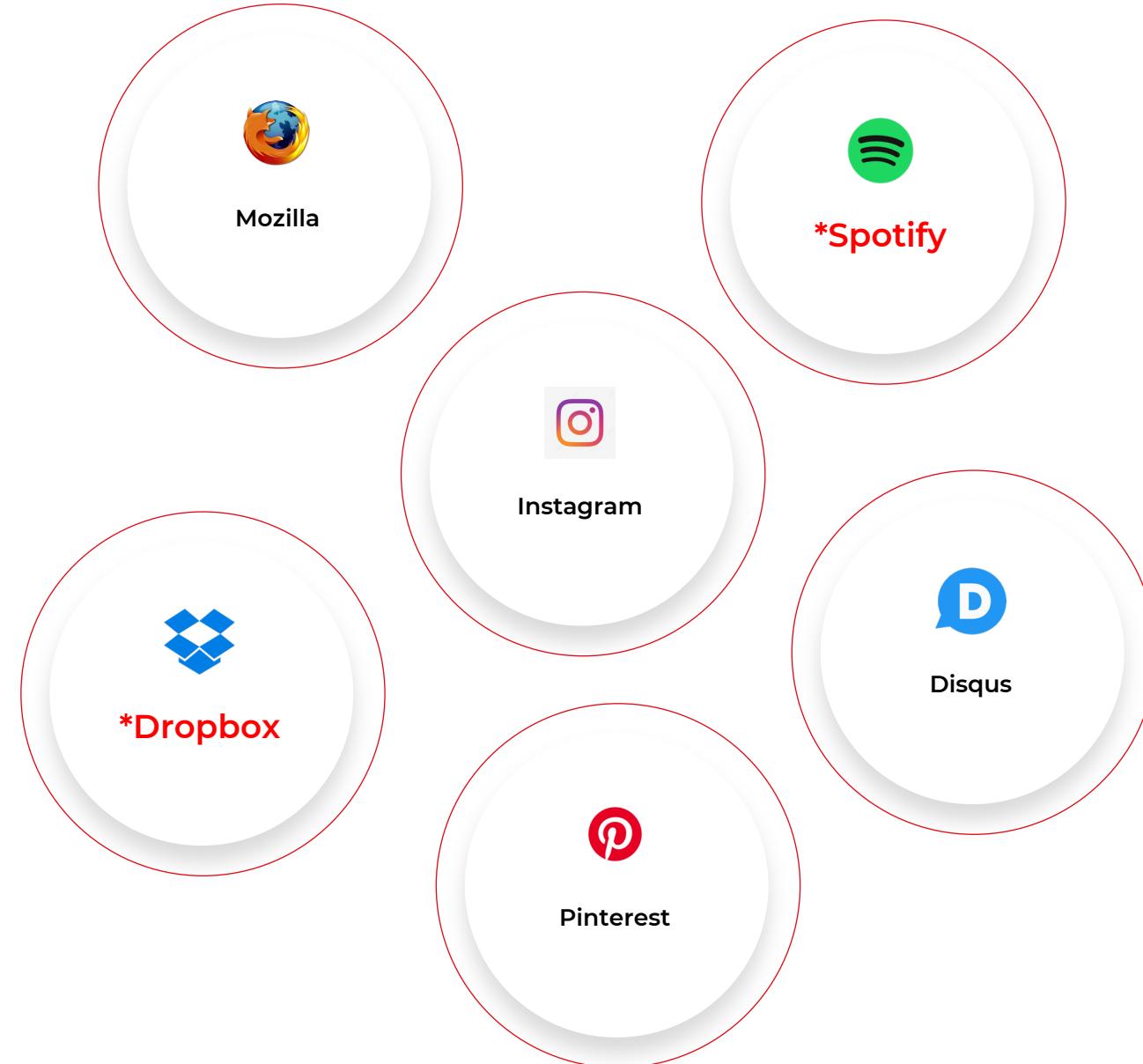
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# Usage



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# Pros and Cons



# Pros

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# 1. Documentation



## 2. High Scalability

### 3. Versatile in Nature

## 4. Offers High Security

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## 5. Thoroughly Tested



## 6. Rapid Development



## 7. Batteries included



# Cons

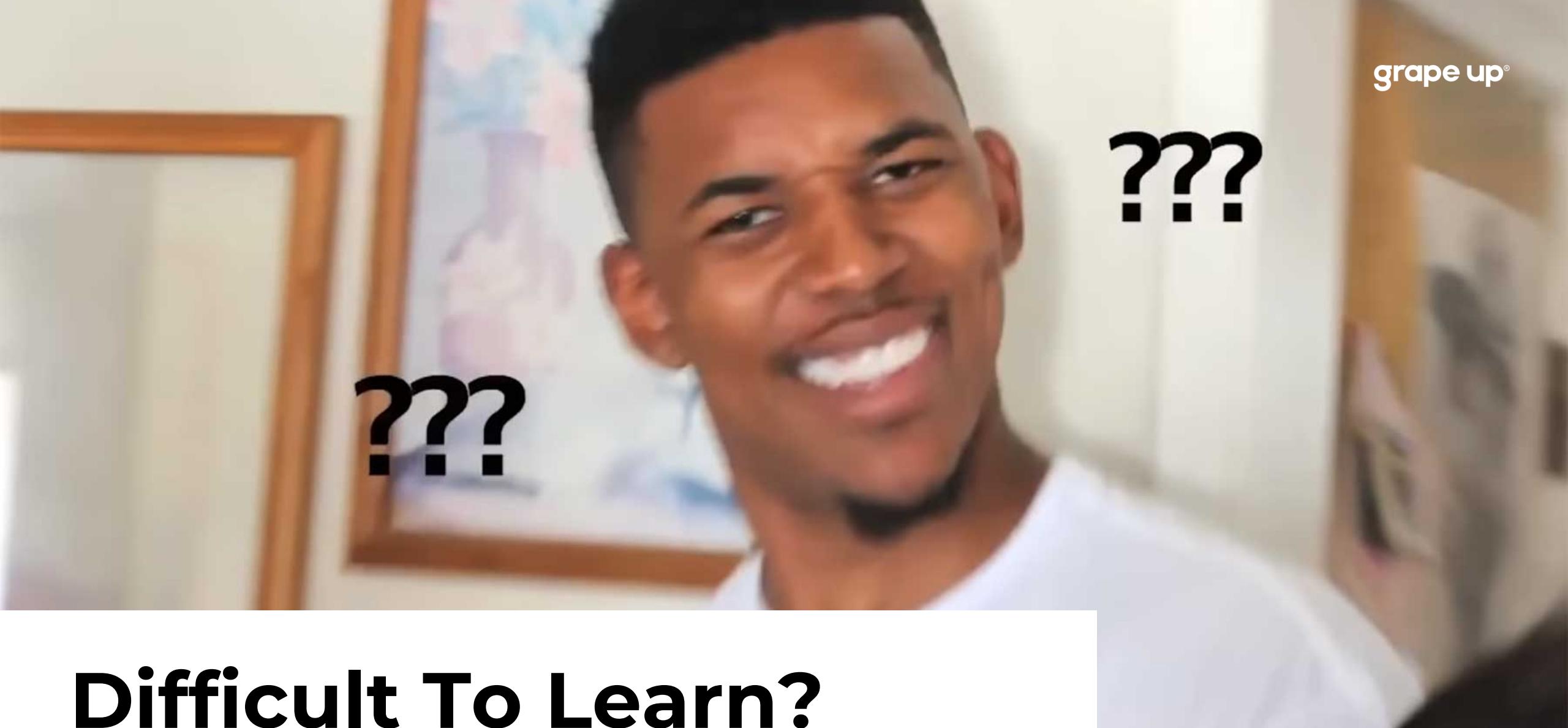
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# 1. Lack Of Conventions



## 2. Monolithic Nature

### 3. Difficult To Learn

A close-up photograph of a young Black man with short dark hair, smiling broadly with his teeth showing. He has three large black question marks overlaid on his eyes. The background is slightly blurred, showing what appears to be a painting or a window with a view of a building.

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**Difficult To Learn?**



**Easy to learn  
Hard to master**



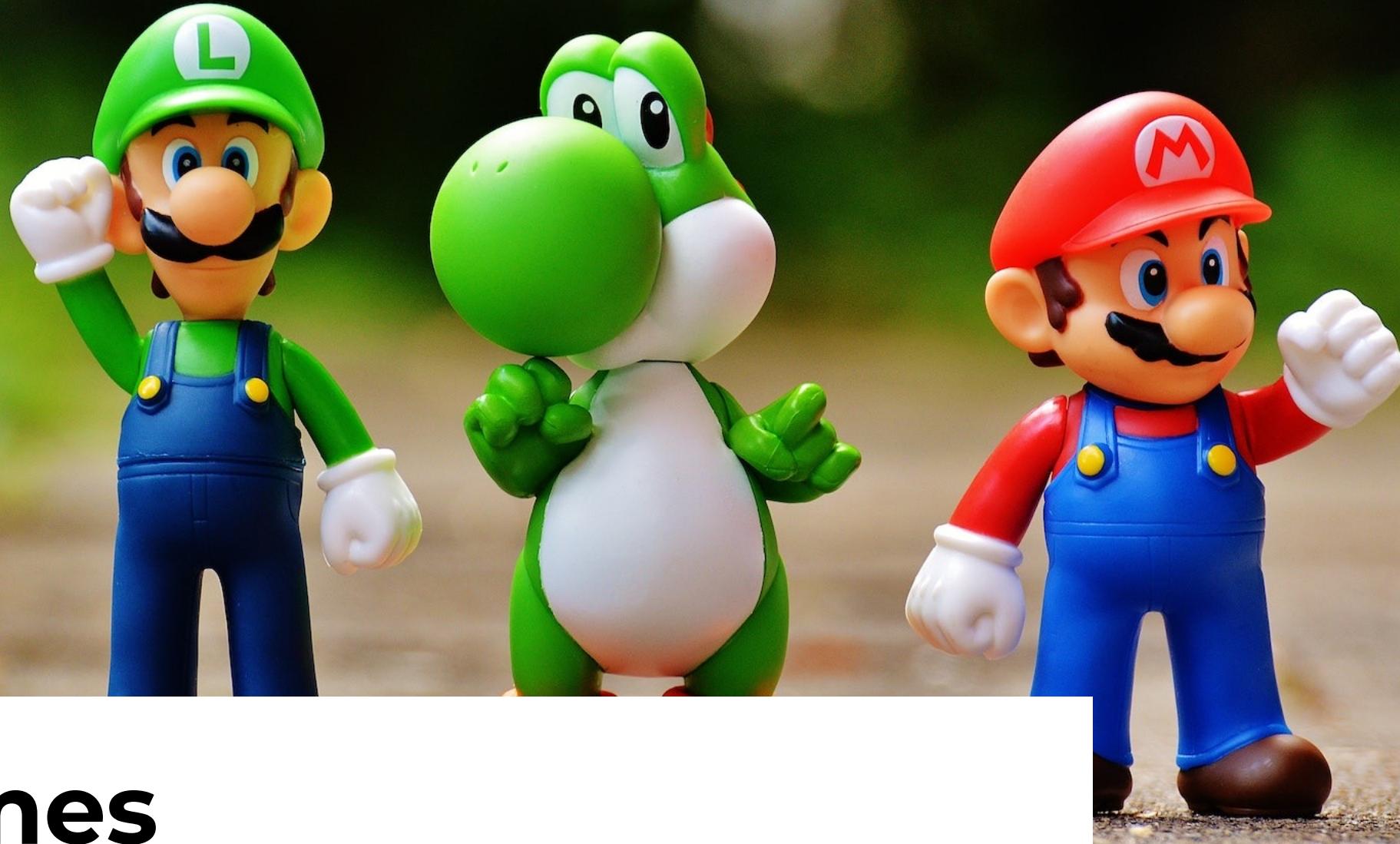
## 4. ORM based

# Universal cure?

A close-up photograph of a brown dog's face. The dog has dark brown eyes and a black nose. It is looking slightly to the right of the camera with a neutral expression. The background is a soft-focus blue and white.

**NOPE, SURE DIDN'T!**

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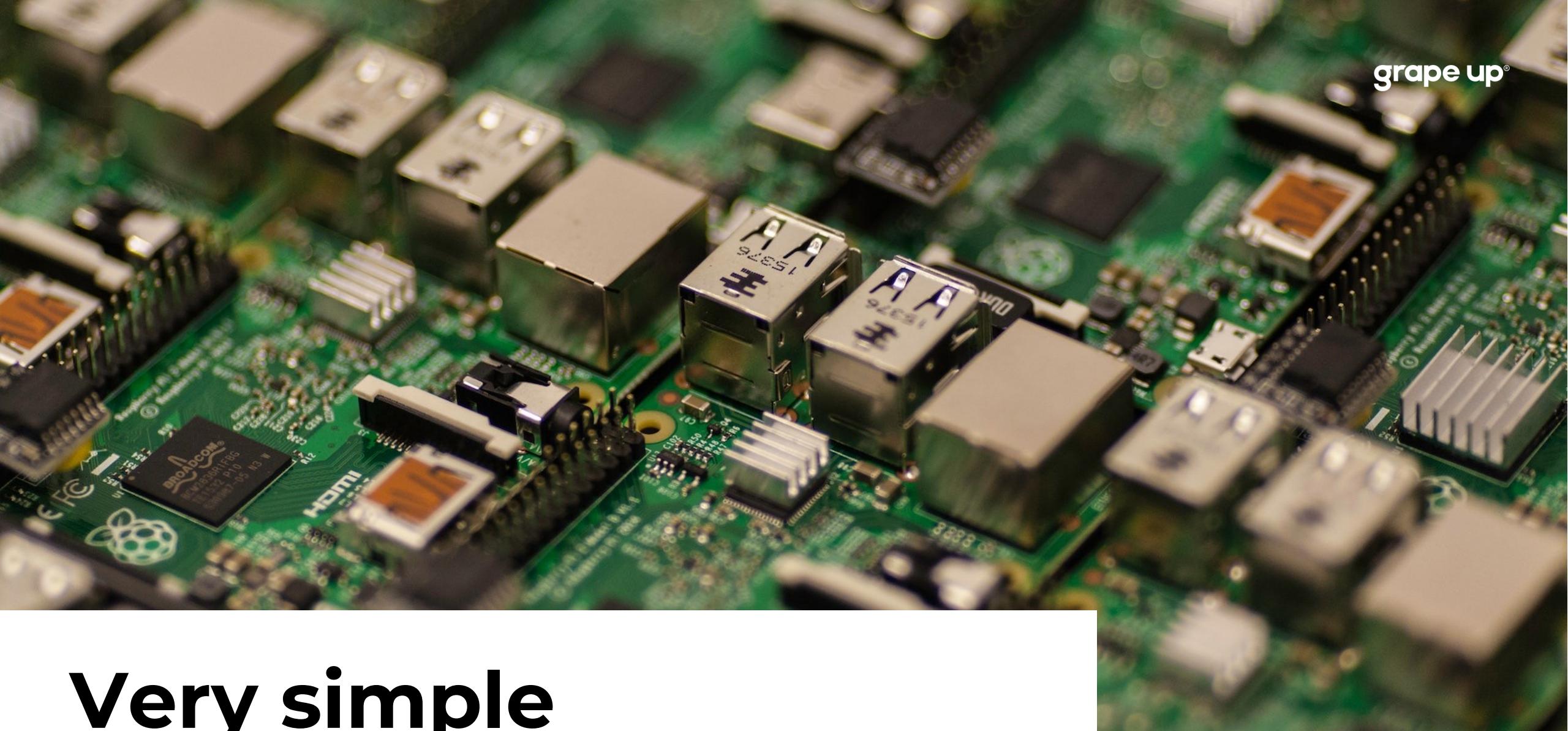
# Games

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**Extremely fast**



# Very simple

# **Alternatives**

# Alternatives



**Flask**

Microweb framework  
written in Python

# Alternatives



## Flask

Microweb framework  
written in Python



## FastApi

Fast, based on  
pydantic and starelette  
using asynclO

# Alternatives



## Flask

Microweb framework  
written in Python



## FastAPI

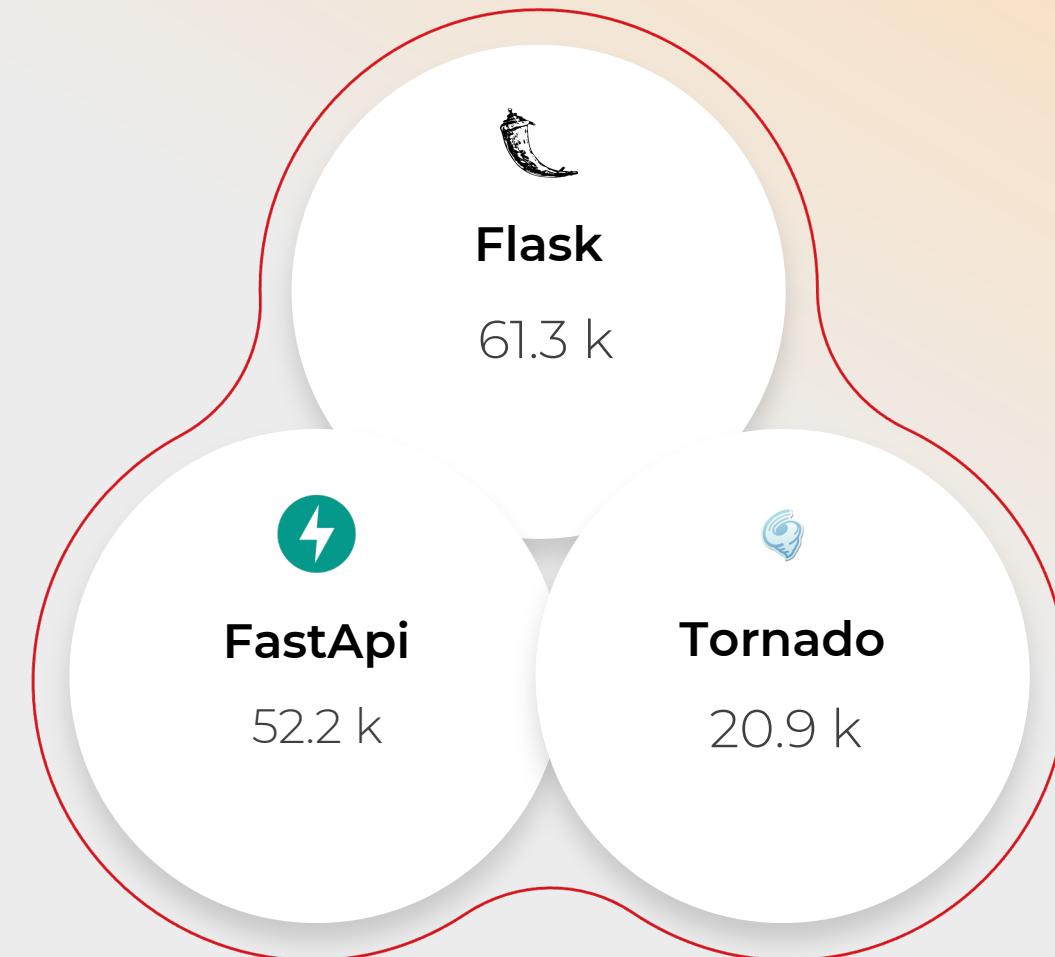
Fast, based on  
pydantic and starelette  
using asyncio



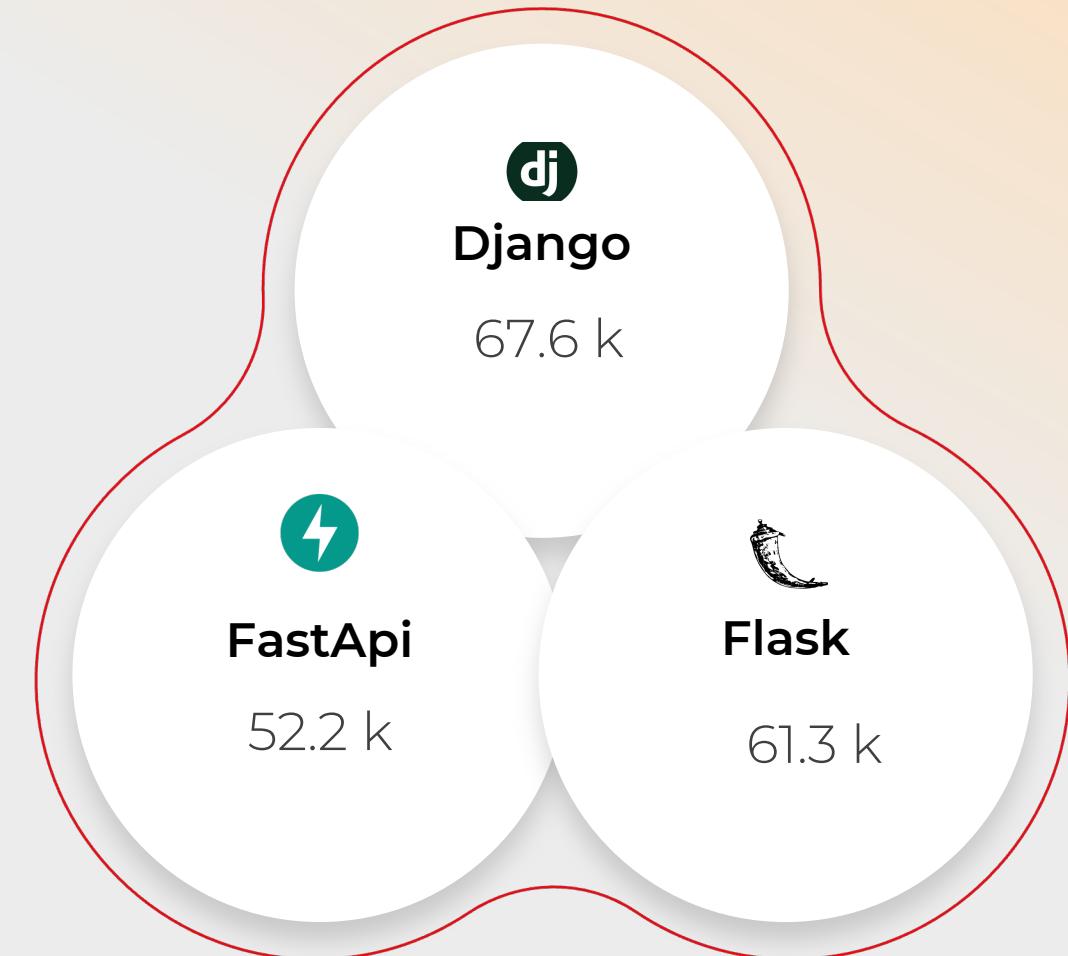
## Tornado

Web framework and  
async networking  
library

# Github popularity



# Github popularity



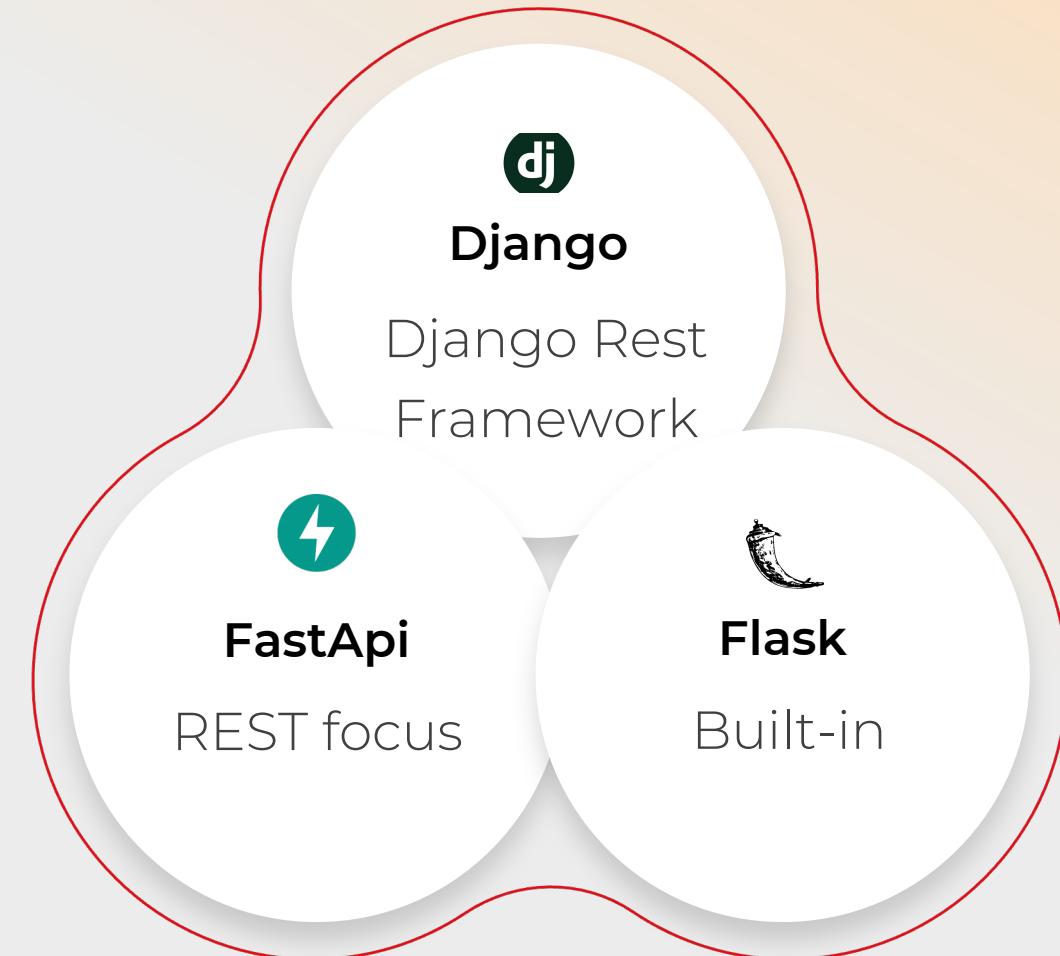


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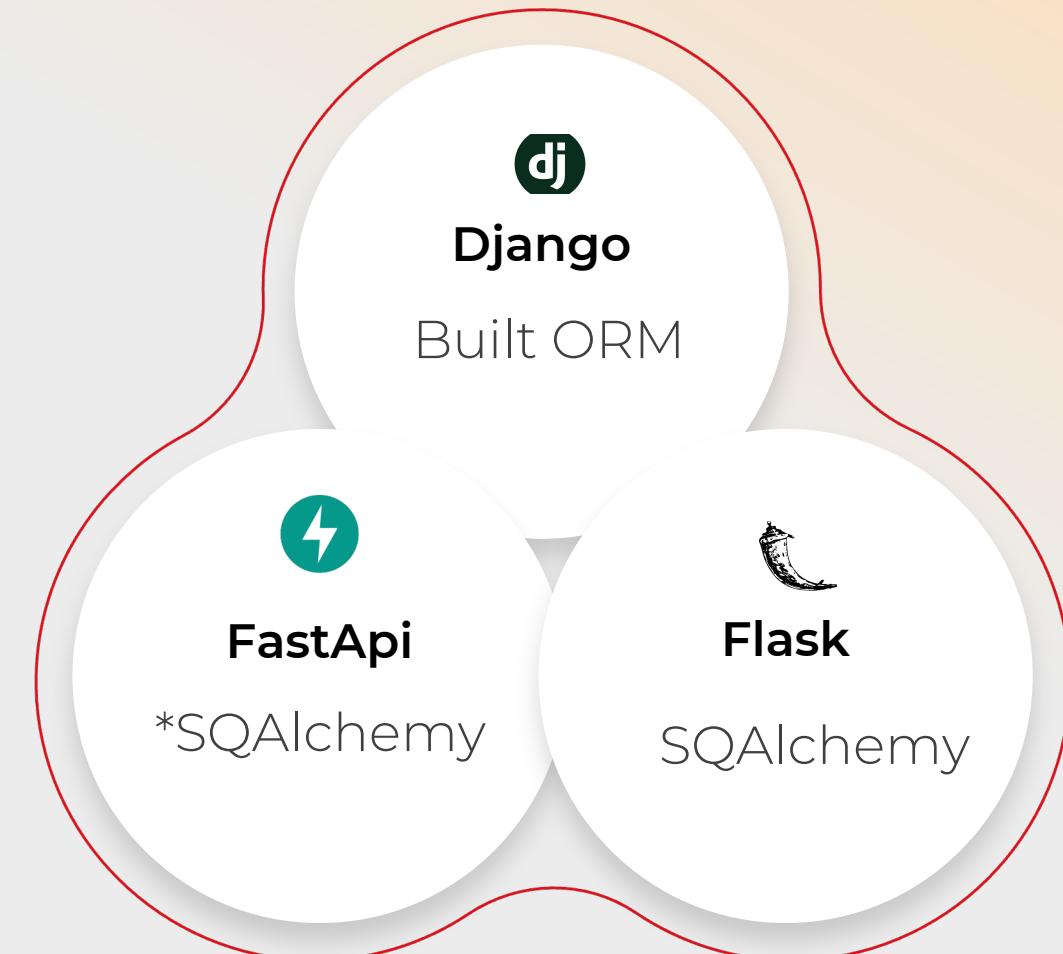
# Comparison

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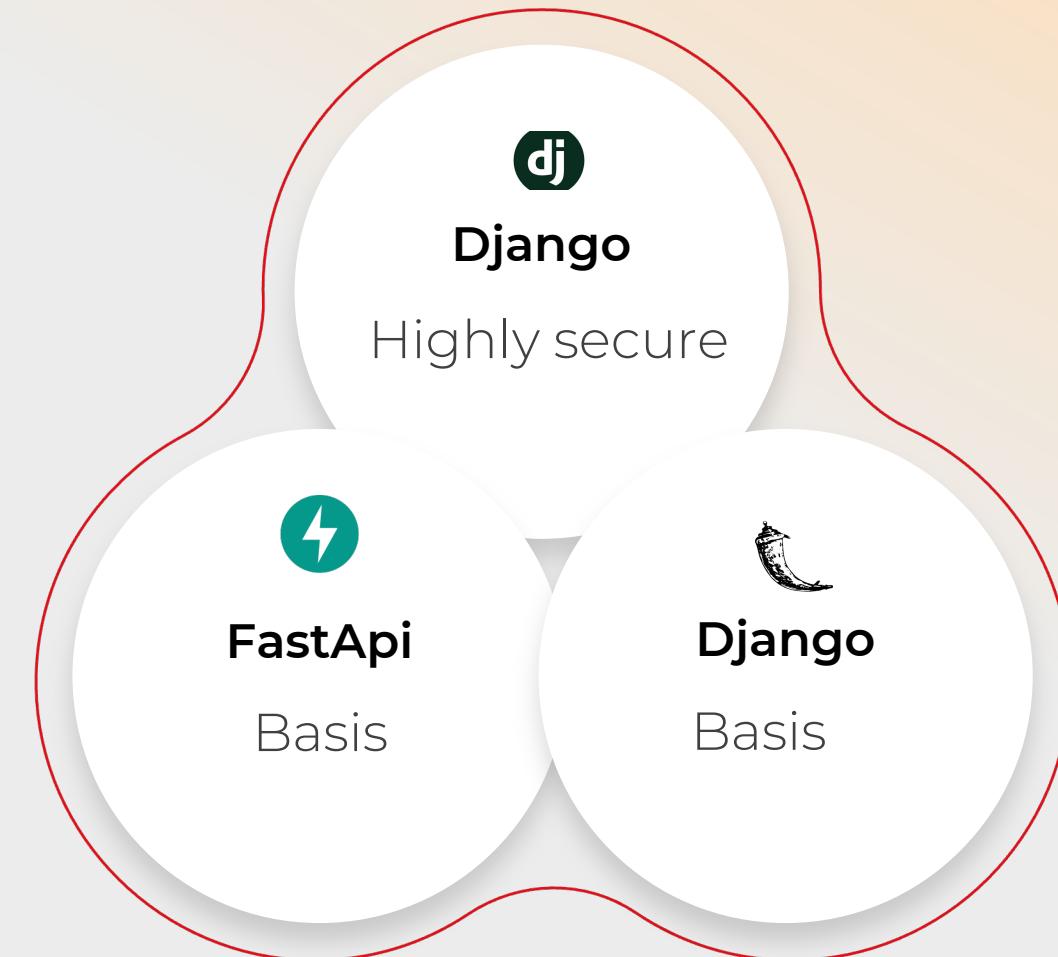
# REST support



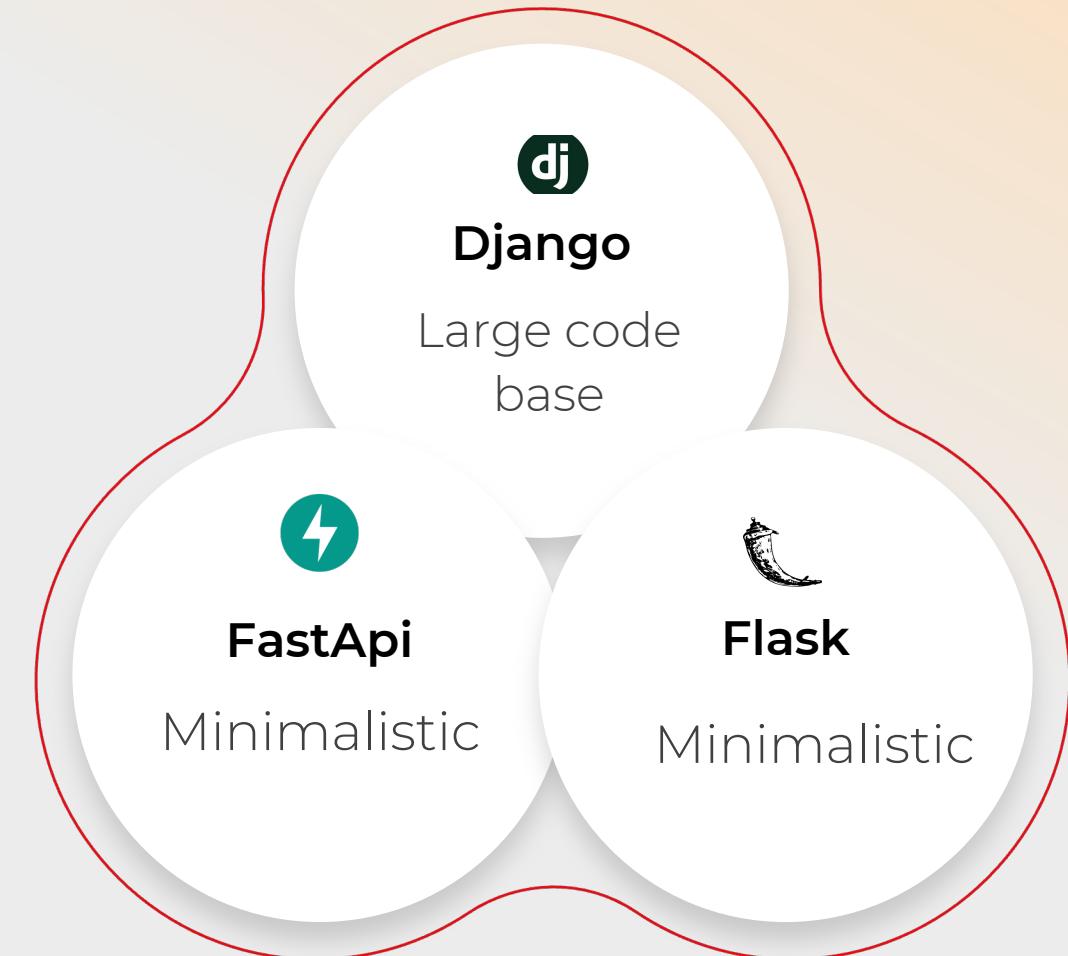
# ORM



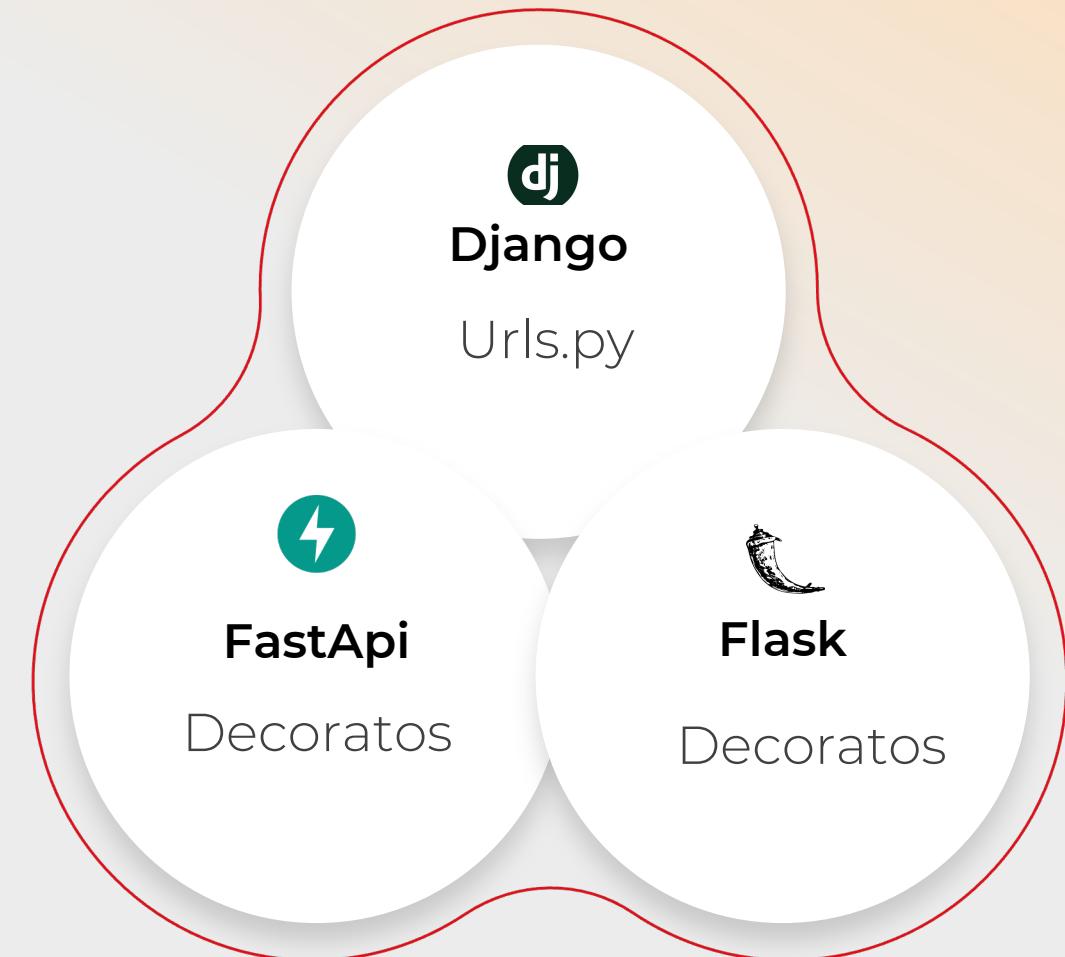
# Security



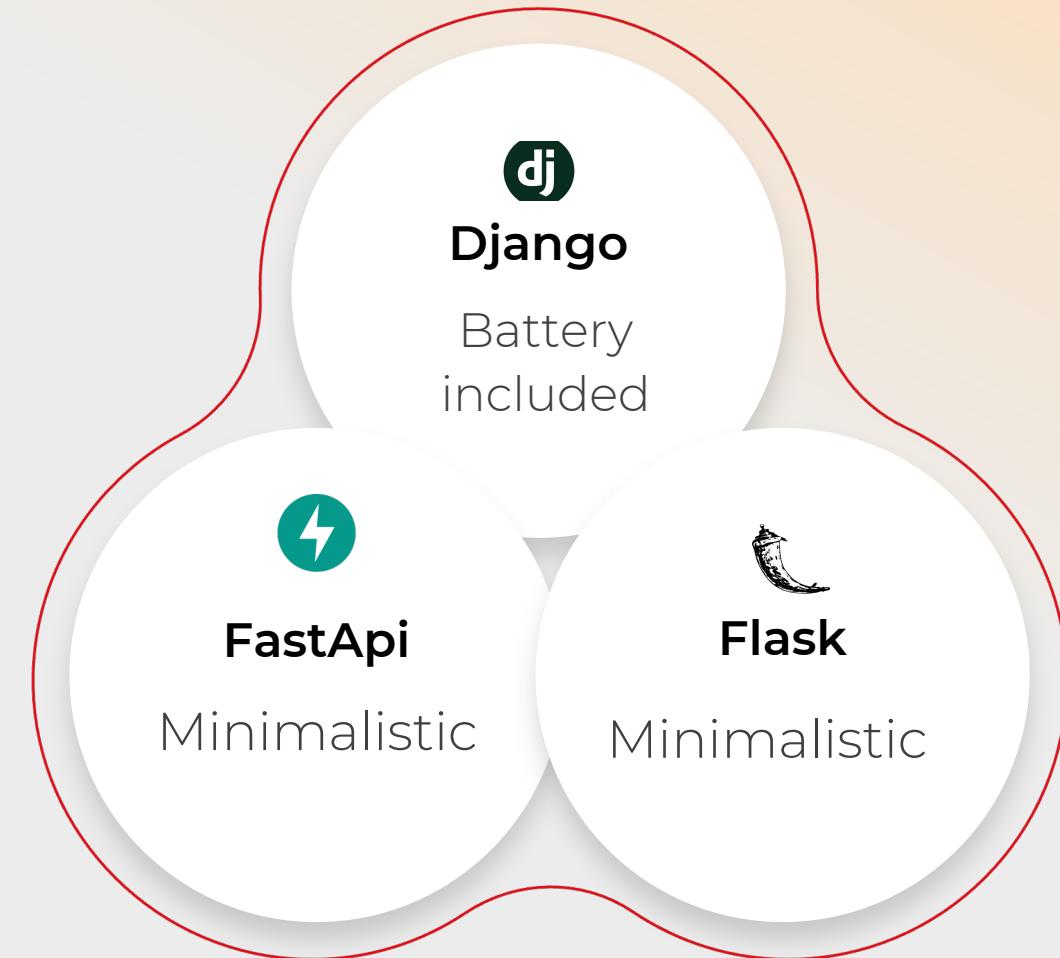
# Project structure



# Routing



# Philosophy



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# Cool features

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# Authentication

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# Authentication

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```
from django.contrib.auth import views as auth_views  
  
path('accounts/login/',  
      auth_views.LoginView.as_view()))
```

# Authentication

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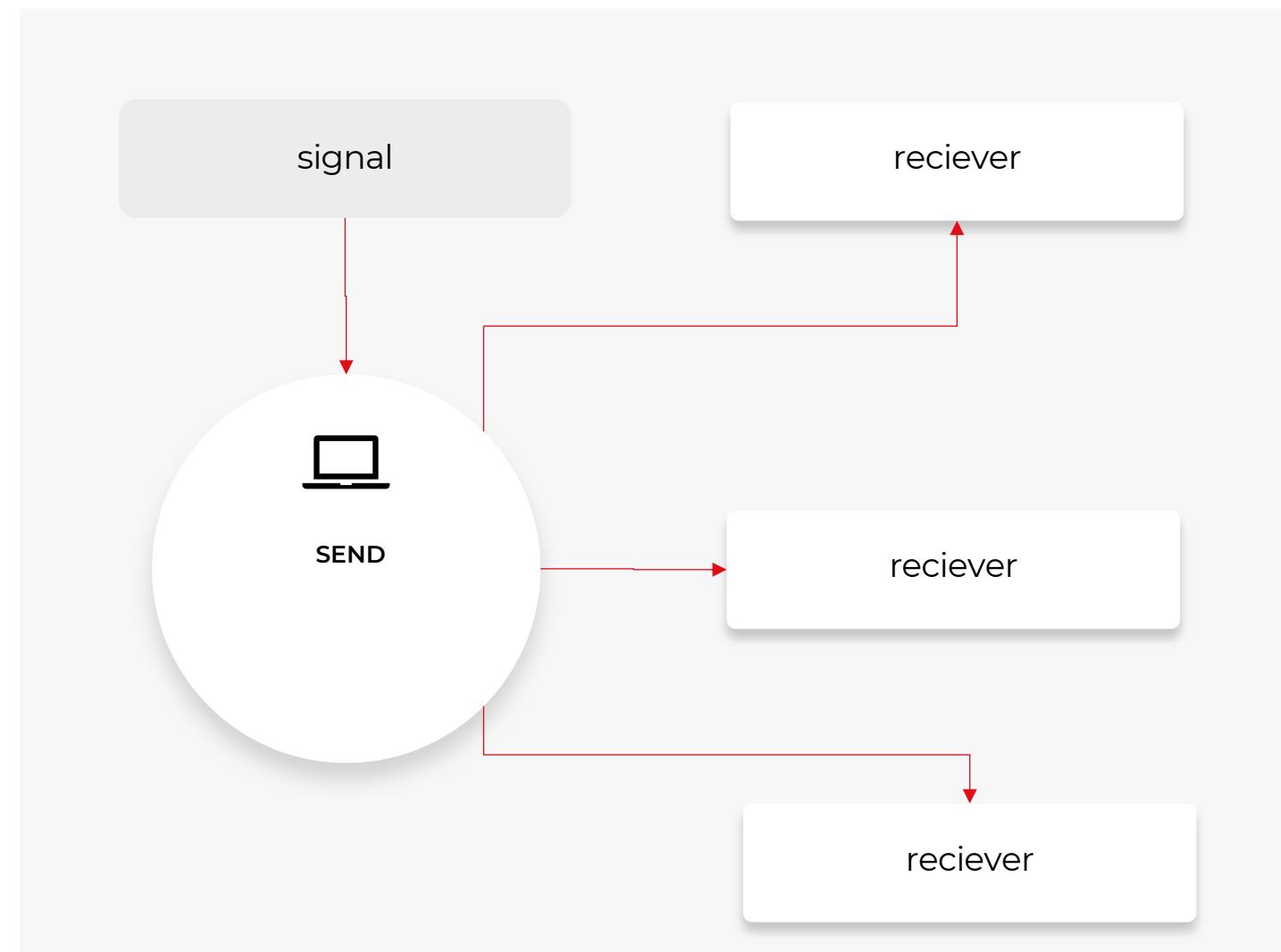


```
from django.contrib.auth import views as auth_views  
  
path('accounts/login/',  
      auth_views.LoginView.as_view())  
  
from django.contrib.auth import views as auth_views  
  
      auth_views.LogoutView  
      auth_views.PasswordResetView  
      auth_views.PasswordChangeView
```

# Signals

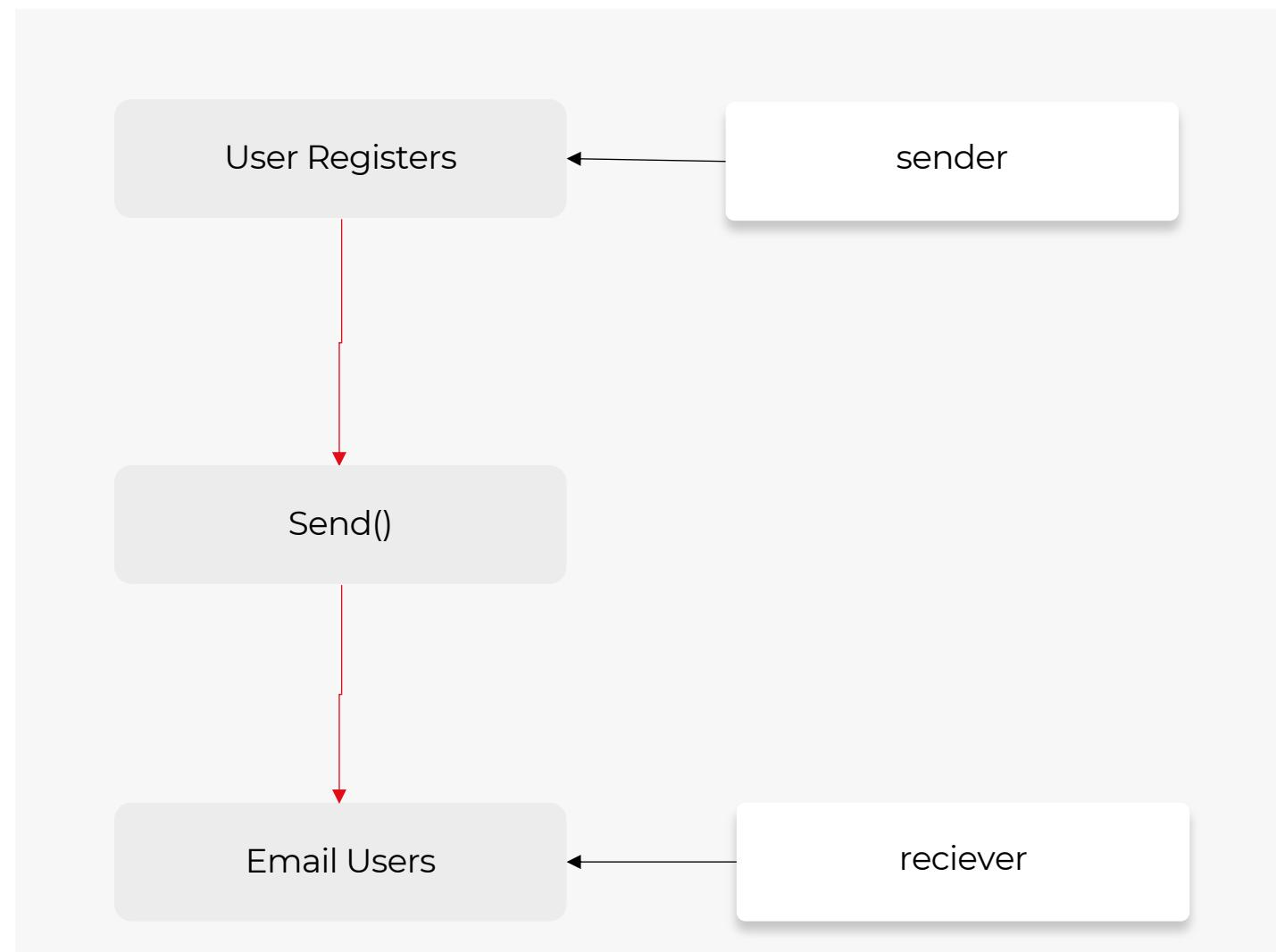


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# Signals

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# Signals

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```
from django.db.models.signals import pre_save
from django.dispatch import receiver
from myapp.models import MyModel

@receiver(pre_save, sender=MyModel)
def my_handler(sender, **kwargs):
    # do smth
```

# Database optimization



# Database optimization

```
Car.objects.select_related('owner').all()
```



# Database optimization



```
Car.objects.select_related('owner').all()
```

```
Blog.objects.values_list('id', 'title')
```

# Database optimization

```
Car.objects.select_related('owner').all()
```

```
Blog.objects.values_list('id', 'title')
```

```
Person.objects.values('name', 'age')
```

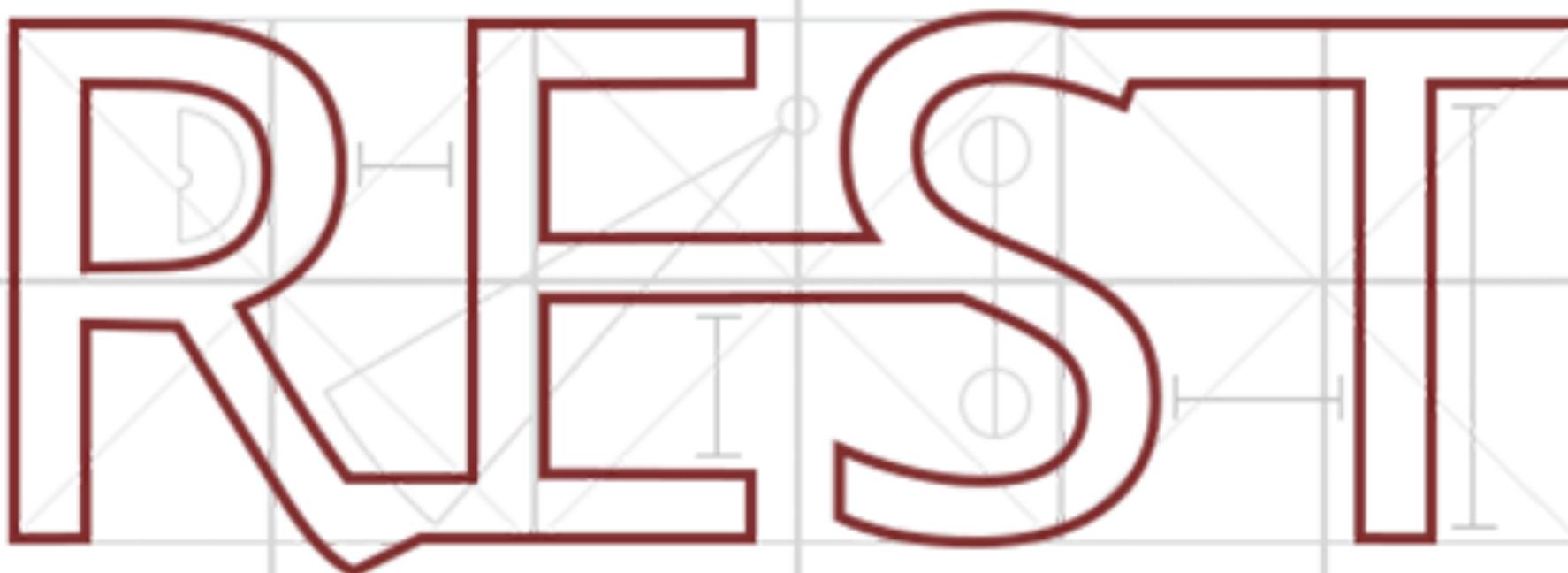


# Database optimization



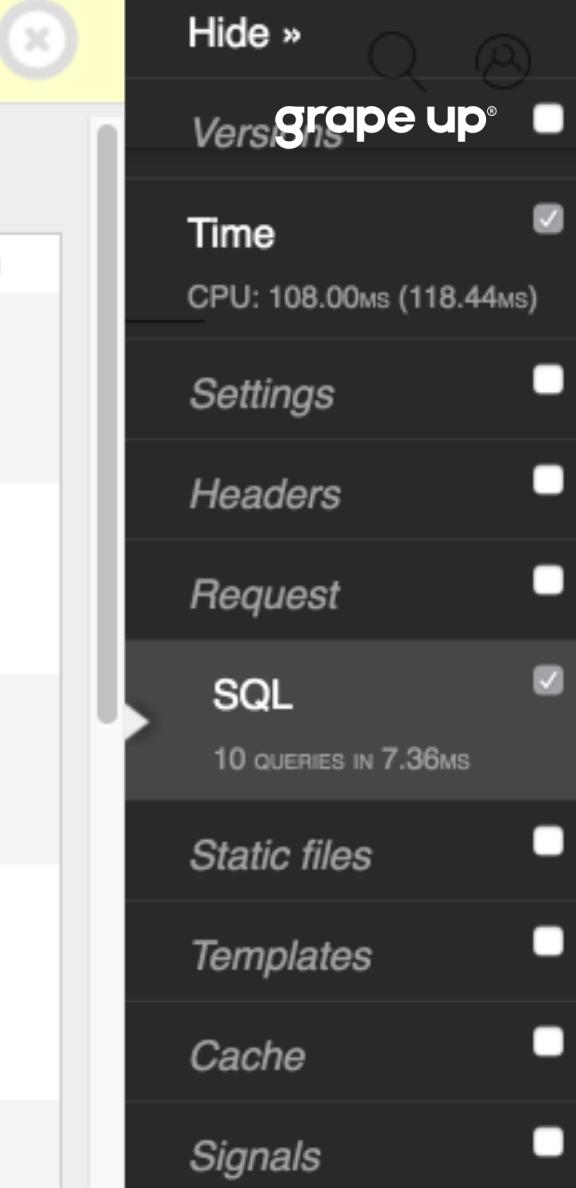
```
Car.objects.select_related('owner').all()  
  
Blog.objects.values_list('id', 'title')  
  
Person.objects.values('name', 'age')  
  
Pizza.objects.only('name')
```

# django



# framework

# SQL queries from 1 connection



# Django Debug Toolbar



# Summary

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# **Summary**

# Summary



Easy

To start

# Summary



**Easy**

To start



**Flexible**

And powerful

# Summary



**Easy**

To start



**Flexible**

And powerful



**Friendly**

To use

# How to not love it?

# Thank you

# Q&A