

# Symfony Framework

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# Symfony Topics

General Discussions

Reflection Quiz 3

Symfony with JSON API Requests: Formula1App

Classroom Practice

- Add minor tweak in Formula1App
  - add a clickable hyperlink to show the races
  - show Circuit name, Location, Date
- Continue yesterday's task 1 and 2 (if time permits in class)

# Service Objects

Tools that help you get your job done



# Service Objects



```
Project ▾ ④ VinylController ⑤ SopController
mixed_vinyl → Shes/mixed_vinyl
bin
  console
config
public
src
  Controller
    .gitignore
    SongController.php
    VinylController.php
    Kernel.php
templates
  vinyl
    browse.html.twig
    homepage.html.twig
    base.html.twig
tutorial
var
vendor
.env
.gitignore
composer.json
composer.lock
symfony.lock
External Libraries
Scratches and Consoles
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
$tracks = [
    ['song' => 'Gang of Youths Paradise', 'artist' => 'Coolio'],
    ['song' => 'Waterfalls', 'artist' => 'TLC'],
    ['song' => 'Cry', 'artist' => 'Radiohead'],
    ['song' => 'Kiss from a Rose', 'artist' => 'Seal'],
    ['song' => 'On Bended Knee', 'artist' => 'Boy II Men'],
    ['song' => 'Fantasy', 'artist' => 'Mariah Carey'],
]
return $this->render('vinyl/homepage', [
    'title' => 'Vinyl Jams',
    'tracks' => $tracks,
]);
}
#[Route('/browse/{slug}', name: 'app_browse')]
```

The diagram illustrates the flow of data and requests within a Symfony application. A large arrow originates from the Symfony logo on the left and points towards the code editor window on the right. Inside the code editor, several arrows point from the code to external components:

- A single arrow points from the code to the word **Twig**.
- Multiple arrows point from the code to the word **Logger**.
- Multiple arrows point from the code to the word **Cache**.
- Multiple arrows point from the code to the word **Database Connection**.
- Multiple arrows point from the code to the word **API Requests**.
- Multiple arrows point from the code to the word **Router**.

# Service Objects: Logger Service

```
use  
Psr\Log\LoggerInterface;
```

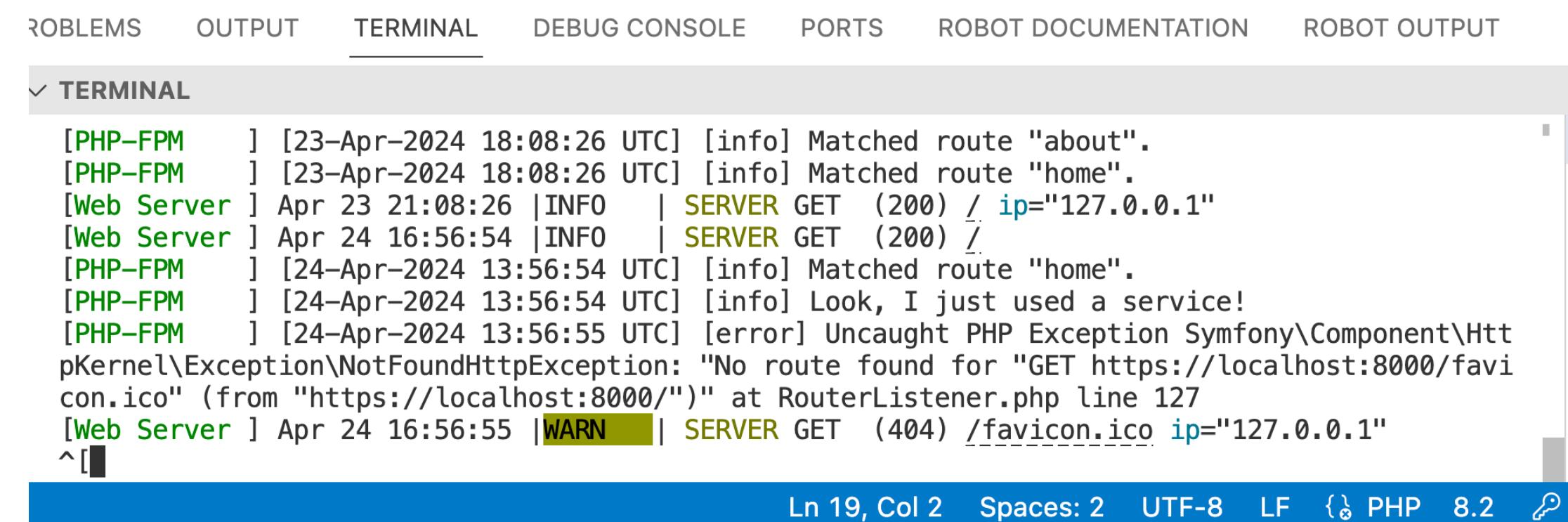
\$logger->info('Look, I just  
used a service!');

What other services are available?

```
php bin/console debug:autowiring
```

[https://symfony.com/doc/current/service\\_container.html#services-autowire](https://symfony.com/doc/current/service_container.html#services-autowire)

```
4  
5  use Psr\Log\LoggerInterface;  
6  use Symfony\Component\HttpFoundation\Response;  
7  use Symfony\Component\Routing\Annotation\Route;  
8  use Symfony\Bundle\FrameworkBundle\Controller\AbstractController;  
9  
10 class HomeController extends AbstractController  
11 {  
12  
13 #[Route("/", name: "home")]  
14 public function index(LoggerInterface $logger): Response  
15 {  
16  
17 $logger->info('Look, I just used a service!');  
18 return $this->render('home/index.html.twig');  
19 }  
20 }
```

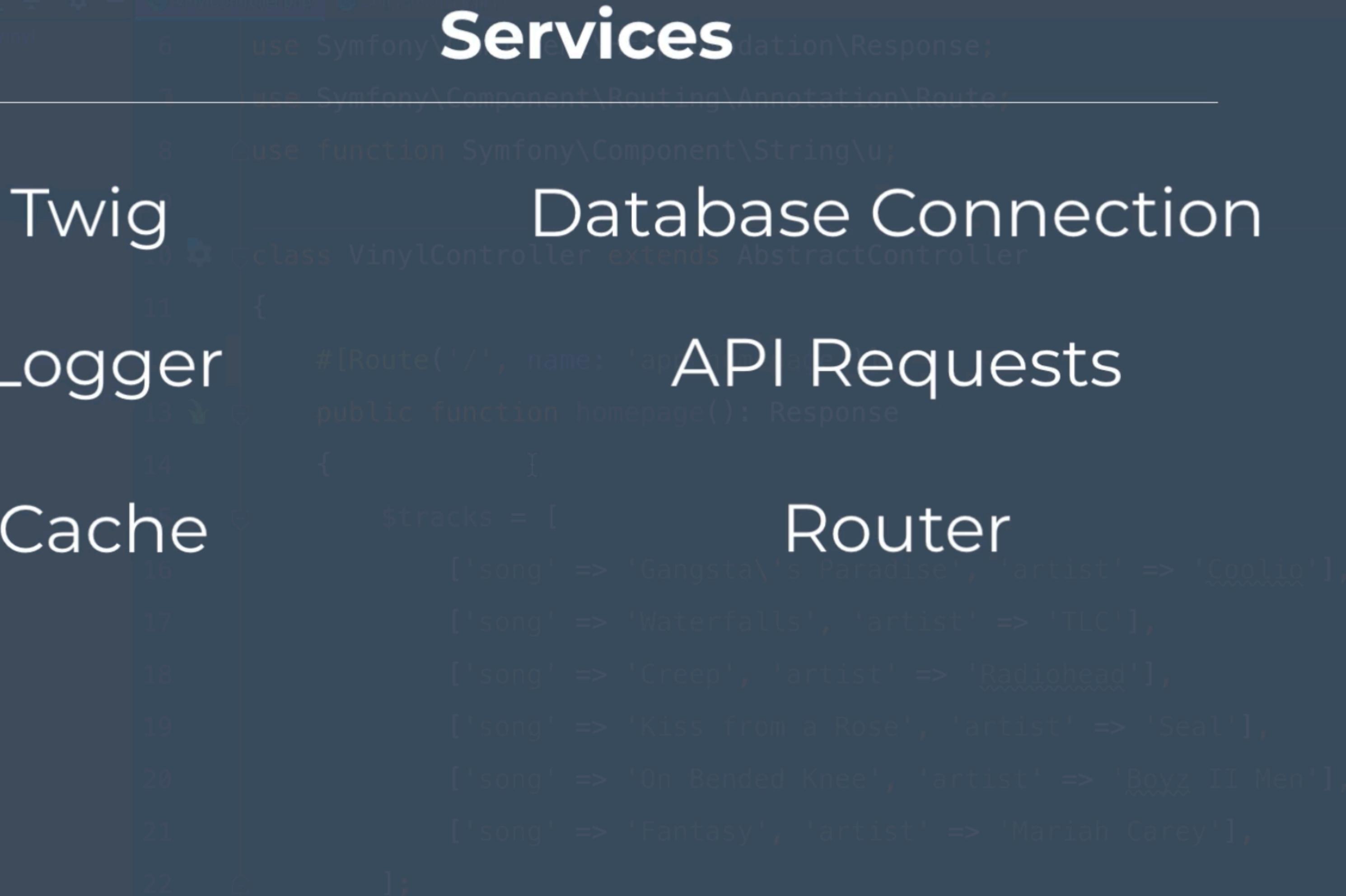


The screenshot shows a terminal window with the following output:

```
[PHP-FPM] [23-Apr-2024 18:08:26 UTC] [info] Matched route "about".  
[PHP-FPM] [23-Apr-2024 18:08:26 UTC] [info] Matched route "home".  
[Web Server] Apr 23 21:08:26 |INFO| SERVER GET (200) / ip="127.0.0.1"  
[Web Server] Apr 24 16:56:54 |INFO| SERVER GET (200) /  
[PHP-FPM] [24-Apr-2024 13:56:54 UTC] [info] Matched route "home".  
[PHP-FPM] [24-Apr-2024 13:56:54 UTC] [info] Look, I just used a service!  
[PHP-FPM] [24-Apr-2024 13:56:55 UTC] [error] Uncaught PHP Exception Symfony\Component\HttpKernel\Exception\NotFoundHttpException:  
"No route found for "GET https://localhost:8000/favicon.ico" (from "https://localhost:8000/")" at RouterListener.php line 127  
[Web Server] Apr 24 16:56:55 |WARN| SERVER GET (404) /favicon.ico ip="127.0.0.1"
```

The terminal tab is selected, and the output shows logs from PHP-FPM, a Web Server, and the Symfony Router.

# Service Objects



# Symfony with JSON API Requests: Formula1App

We will use Open source free developer API provided by <https://ergast.com/mrd/>

The Ergast Developer API is an experimental [web service](#) which provides a historical record of Formula one motor racing data for non-commercial purposes.

API endpoint: <https://ergast.com/api/f1/2024.json>

How can we create a simple Symfony JSON API requests app based on the above API?

**NOTE:** The API is deprecated so don't build anything huge because it will be updated until the end of this year 2024 season then shutdown at the end of the year.

# Formula1 App consuming external API

```
symfony new formula1app --version=7.0 --webapp
```

```
php bin/console make:Controller Formula1Controller
```

Create a new folder Service under src

Add a new class called “Call ApiService.php” inside src/Service

# Formula1 App: Call ApiService.php

```
<?php

namespace App\Service;

use Symfony\Contracts\HttpClient\HttpClientInterface;

class Call ApiService {
    private $httpClient;
    public function __construct(HttpClientInterface $httpClient)
    {
        $this->httpClient = $httpClient;
    }
    public function getRacesIn2024(): array
    {
        $response = $this->httpClient->request("GET","https://ergast.com/api/f1/2024.json");
        return $response->toArray();
    }
}
```

# Formula1 App: Formula1Controller.php

```
<?php

namespace App\Controller;

use Symfony\Bundle\FrameworkBundle\Controller\AbstractController;
use Symfony\Component\HttpFoundation\Response;
use Symfony\Component\Routing\Attribute\Route;
use App\Service\Call ApiService;

class Formula1Controller extends AbstractController
{
    #[Route('/', name: 'app_formula1')]
    public function index(Call ApiService $call ApiService): Response
    {
        //dump($call ApiService->get RacesIn2024());
        return $this->render('formula1/index.html.twig', [
            'data' => $call ApiService->get RacesIn2024(),
        ]);
    }
}
```

# Profiler: Intro

The profiler is a powerful **development tool** that gives detailed information about the execution of any request. Use 10-15 minutes to browse and go through each of those menus and links inside profiler.

Browse the `/_profiler` URL to see all profiles

Inside Symfony Profile, navigate to

Request/Response

Logs

Routing

Twig

HTTP Client

Configuration

# Formula1 App: ClassRoom Practice

## Add minor tweaks in Formula1App

- add a clickable hyperlink to show the races
- link must go to specific race wikipedia page
- add styling as appropriate
- show Circuit name
- show Location
- show Date

https://127.0.0.1:8000

## F1 races in 2024

**Bahrain Grand Prix**

Circuit: Bahrain International Circuit

Location: Sakhir, Bahrain

Date: 2024-03-02



**Saudi Arabian Grand Prix**

Circuit: Jeddah Corniche Circuit

Location: Jeddah, Saudi Arabia

Date: 2024-03-09



**Australian Grand Prix**

Circuit: Albert Park Grand Prix Circuit

Location: Melbourne, Australia

Date: 2024-03-24

