src/Controller/PokemonsController.php

```
namespace App\Controller;
use App\Entity\Categorias;
use App\Entity\Pokemons;
use App\Repository\PokemonsRepository;
use Doctrine\ORM\EntityManager;
use Doctrine\ORM\EntityManagerInterface;
use Doctrine\Persistence\ManagerRegistry;
use Symfony\Bridge\Doctrine\Form\Type\EntityType;
use Symfony\Bundle\FrameworkBundle\Controller\AbstractController;
use Symfony\Component\Form\Extension\Core\Type\ChoiceType;
use Symfony\Component\Form\Extension\Core\Type\IntegerType;
use Symfony\Component\Form\Extension\Core\Type\NumberType;
use Symfony\Component\Form\Extension\Core\Type\SubmitType;
use Symfony\Component\Form\Extension\Core\Type\TextType;
use Symfony\Component\HttpFoundation\JsonResponse;
use Symfony\Component\HttpFoundation\Request;
use Symfony\Component\HttpFoundation\Response;
use Symfony\Component\Routing\Attribute\Route;
use Symfony\Component\Validator\Constraints\Json;
#[Route('/pokemons', name: 'app_pokemons_')]
class PokemonsController extends AbstractController
{
    // Plantilla para métodos
    #[Route('/index', name: 'index')]
    public function index(): Response
    {
        return $this->render('pokemons/index.html.twig', [
            'controller_name' => 'PokemonsController',
        1);
    }
    // 04. Inserción 1 registro con parámetros y FK
    #[Route(
        '/insertar/{cat}/{nombre}/{altura}/{peso}/{sexo}',
        name: 'insertarParams'
    ) ]
    public function insertarParams(
        int $cat,
        string $nombre,
        int $altura,
        float $peso,
        bool $sexo,
        ManagerRegistry $doctrine
    ): Response {
        $gestorEntidades = $doctrine->getManager();
        $pokemon = new Pokemons;
        $pokemon->setNombre($nombre);
        $pokemon->setAltura($altura);
        $pokemon->setPeso($peso);
        $pokemon->setSexo($sexo);
        // Gentileza Juan Carlos ;)
```

```
// Para claves foráneas, se introduce el objeto ENTERO
        $categoria = new Categorias();
        // Obtengo el repo de categorias
        $repoCategorias =
            $gestorEntidades->getRepository(Categorias::class);
        // Saco el objeto categoria completo
        $categoria = $repoCategorias->find($cat);
        $pokemon->setIdCategoria($categoria);
        $gestorEntidades->persist($pokemon);
        $gestorEntidades->flush();
        return new Response("Pokemon insertado con ID: "
            . $pokemon->getId());
    }
    // 05. Consulta completa (findAll)
    #[Route('/verPokemons', name: 'verpokemons')]
    public function verPokemons(EntityManagerInterface $gestorEntidades): Response
    {
        $repoPokemons = $qestorEntidades->getRepository(Pokemons::class);
        $pokemons = $repoPokemons->findAll();
        return $this->render('pokemons/index.html.twig', [
            'controller_name' => 'PokemonsController',
            'Bichos' => $pokemons,
        ]);
    }
    // 06. Consulta completa, salida array JSON
    #[Route('/verPokemonsJSON', name: 'verpokemonsjson')]
    public function verPokemonsJSON(PokemonsRepository $repoPokemons): Response
    {
        $pokemons = $repoPokemons->findAll();
        $datos = [];
        foreach ($pokemons as $pokemon) {
            $datos[] = [
                "idPokemon" => $pokemon->getId(),
                "nombre" => $pokemon->getNombre(),
                "altura" => $pokemon->getAltura(),
                "peso" => $pokemon->getPeso(),
                "sexo" => $pokemon->isSexo(),
                "categoria" => $pokemon->getIdCategoria()->getCategoria()
            ];
        }
        return new JsonResponse($datos);
    }
    // 07. Consulta por parámetro, salida array JSON
    #[Route('/verPokemonsJSON/{sexo}', name: 'verpokemonsjsonparam')]
    public function verPokemonsJSONParam(PokemonsRepository $repoPokemons, bool $sexo):
Response
    {
        // Consultar pokemons por sexo
        $pokemons = $repoPokemons->findBy(["sexo" => $sexo,]);
        $datos = [];
        foreach ($pokemons as $pokemon) {
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$datos[] = [
                "idPokemon" => $pokemon->getId(),
                "nombre" => $pokemon->getNombre(),
                "altura" => $pokemon->getAltura(),
                "peso" => $pokemon->getPeso(),
                "sexo" => $pokemon->isSexo(),
                "categoria" => $pokemon->getIdCategoria()->getCategoria()
            ];
        }
        //return new JsonResponse($datos);
        return $this->json($datos);
    }
    // 08. Consulta por parámetro y ordenación, salida array JSON
    #[Route(
        '/verPokemonsOrdenadosJSON/{sexo}',
        name: 'verpokemonsOrdenadosjsonparam'
    public function verPokemonsOrdenadosJSONParam(PokemonsRepository $repoPokemons, bool
$sexo): Response
    {
        // Consultar pokemons por sexo
        // Y ordenarlos por altura de mayor a menor
        $pokemons =
            $repoPokemons->findBy(
                ["sexo" => $sexo,],
                ["altura" => "DESC"]
            );
        $datos = [];
        foreach ($pokemons as $pokemon) {
            $datos[] = [
                "idPokemon" => $pokemon->getId(),
                "nombre" => $pokemon->getNombre(),
                "altura" => $pokemon->getAltura(),
                "peso" => $pokemon->getPeso(),
                "sexo" => $pokemon->isSexo(),
                "categoria" => $pokemon->getIdCategoria()->getCategoria()
            ];
        }
        //return new JsonResponse($datos);
        return $this->json($datos);
    }
    // 09. Actualizar con parámetros
    #[Route(
        '/actualizar/{id}/{altura}/{peso}',
        name: 'actualizarparams'
    public function actualizarParams(
        ManagerRegistry $doctrine,
        int $id,
        int $altura,
        float $peso
    ): Response {
        $gestorEntidades = $doctrine->getManager();
```

```
// Sacamos el pokemon que vamos a actualizar
    $repoPokemons = $gestorEntidades->getRepository(Pokemons::class);
    $pokemon = $repoPokemons->find($id);
    if (!$pokemon) {
        throw $this->createNotFoundException("Pokemon NO encontrado");
    $pokemon->setAltura($altura);
    $pokemon->setPeso($peso);
    $gestorEntidades->flush();
    // Vamos a hacer una redirección
    return $this->redirectToRoute("app_pokemons_verpokemons");
}
// 10. Eliminación con parámetro (id)
#[Route('/eliminar/{id}', name: 'eliminar')]
public function eliminar(
    EntityManagerInterface $gestorEntidades,
    int $id
): Response {
    // Sacamos el pokemon que vamos a eliminar
    $repoPokemons = $qestorEntidades->getRepository(Pokemons::class);
    $pokemon = $repoPokemons->find($id);
    // Borro y actualizo
    $gestorEntidades->remove($pokemon);
    $gestorEntidades->flush();
    return new Response("Pokemon eliminado con ID: " . $id);
}
// 11. Formulario
// 2 inyecciones: la solicitud (request) y el doctrine
#[Route('/formulario', name: 'formulario')]
public function formulario(Request $request,
ManagerRegistry $doctrine): Response
{
    // a. Creamos el objeto a guardar vacío
    $pokemon = new Pokemons();
    // b. Creamos el objeto formulario
    $formulario = $this->createFormBuilder($pokemon)
        ->add("nombre", TextType::class,
        ["attr" => ["class" => "form-control"] ])
        ->add("altura", IntegerType::class,
        ["attr" => ["class" => "form-control"] ])
        ->add("peso", NumberType::class,
        ['attr' => [ 'class' => 'form-control',
            'step' => '0.01' ],
            'html5' => true ])
        ->add("sexo", ChoiceType::class,
            "choices" => [
                "Hembra" => true,
                "Macho" => false, ],
            "attr" => ["class" => "form-control"]
        1)
        // Añadimos el campo del FK
```

}

}

```
->add("idCategoria", EntityType::class,
        "class" => Categorias::class, // Entidad
        // Choice label -> nombre tabla FK en minusculas
        "choice_label" => "categoria",
        "placeholder" => "Seleciona categoria",
        "attr" => ["class" => "form-select"]
    ])
    ->add("guardar", SubmitType::class,
        ["attr" => ["class" => "btn btn-danger"],
            "label" => "Insertar Pokémon"])
    ->getForm();
// c. Tratar el formulario
// Recoger datos del formulario e insertar en la BBDD
$formulario->handleRequest($request);
if ($formulario->isSubmitted() && $formulario->isValid()) {
    // Guardamos el pokemon
    $gestorEntidades = $doctrine->getManager();
    $gestorEntidades->persist($pokemon);
    $gestorEntidades->flush();
    // Redireccionamos
    return $this->redirectToRoute("app_pokemons_verpokemons");
}
// d. Pintar el formulario
return $this->render('pokemons/formulario.html.twig', [
    'controller_name' => 'PokemonsController',
    "formulario" => $formulario,
]);
```