Eugen: Welcome to this lesson out of Learn Spring where we're going to be focusing on a core feature of Spring boot, and that is actuators. Let's start with a high level definition. Simply put, actuators are monitoring tools that bring production-ready features into our application with a very, very low amount of effort. Now, more specifically, they provide various endpoints, mainly exposed via http, but also JMX, [00:00:30] and these basically helping monitoring and to some extent even managing our application. We're going to have a look at a few of them in this lesson.

So through actuators, Spring boot provides functionality like auditing, health checks for the application, exposing metrics information, and a wide range of other use cases. And the other interesting thing here is that we can actually also roll our own, so if something isn't actually provided by the framework, we can create [00:01:00] that using the actuator infrastructure. All right, let's switch to the ID, and let's get started.

All right, so with our project important here, let's open up the palm, and let's actually enable the actuator functionality. The simplest way to do that is to use the boot starter. As with many other boot functionality, we have a starter specifically focused just on actuators. [00:01:30] So they we have it. This is the spring boot starter actuator. We've added that in. The version is of course managed by the boot parent, and we are ready to go.

Now remember, boot provides a number of built in end points and actuators, and of course they're all well documented in the official reference, but let's have a look at the common ones. Let's get the application running, and let's have a look at the health [00:02:00] endpoint. Now before we do that, have a look at the log here. Notice this line where we're exposing two end points beneath the base path, which is slash actuator. And those two end points are slash health and slash info. Let's hit slash health, and let's have a look.

All right, so we're hitting local host 8080 here. Now remember the base path for actuators was [00:02:30] slash actuator, and under these base path we're hitting slash health. There we go. Naturally the health end point shows very little information at this point about the health of the application. It simply shows that the status is up. This bare minimum response here can and should be adjusted and enhanced based on your own application and your own internal tracking of the state of that application. [00:03:00] Now let's switch to information, and let's have a look at that.

Again, this end point shows very little information about our application, but at this point, we haven't actually configured or defined any information about our application, so by default the end point will simply return [inaudible 00:00:03:19], but no actual information. However, populating the response of this end point is quite easy. Everything is configurable of course via properties, so let's [00:03:30] do exactly that. Let's add some information about the application. Let's for example, add a name in the description. The pattern for the properties here is simple, as well. We're going to start with info. Now we're agreeing to give our application a name and a quick description.

And there we [00:04:00] have it, some very simple meta information about our application. Now let's run again. Let's hit the info end point again, and let's see what we get. All right, let's refresh here, and here we are. We're getting this information right into the info end point. Now of course this is a simple bit of meta information, but there's actually quite a bit of support to allow [00:04:30] you to expose information that's not just simple text. I'll make sure to include some resources in the lesson notes to explore some of that more rich information outside of just text.

All right, let's do some simple configuration of the actuator the framework here. So one thing you'll notice is that our base path for all actuators is slash actuator. Now if you need to change that, it can easily be configured via properties. So let's open up application dot properties, [00:05:00] and let's change these base path to slash monitoring for example.

Okay, let's get this deployed. And now first of all, let's try to hit the original path. Of course now this is resulting in a 404 not found. Now let's change the path, [00:05:30] and there we are. Remember this will apply to all actuator end points, so this is not just about info, it's about all of the end points available over http. But what if we actually do want to change the URL of slash info? So let's say for example we want to change these to monitoring slash information, not just info. Of course, that's also going to be easily done via property.

There [00:06:00] we are. Let's redeploy, and again, let's hit our original path 404, and of course we can access the end point at the new path. Now this only scratches the surface of what the actuator framework can actually do. There are more actuators, and even [00:06:30] these two actuators, slash health and slash information, can do a lot more. So the goal here is to just get started with actuators. We'll definitely explore these further in the course, and I'll definitely link out to some more advanced functionality that you can actually achieve with the actuators. All right, hope you're excited. See you in the next lesson.