

@ModelAttribute

The `@ModelAttribute` annotation in Spring MVC is used to bind request parameters or form fields to model attributes. It can be applied to method parameters or method-level attributes within a controller.

Here's how it works:

1. Binding Request Parameters: When applied to a method parameter, `@ModelAttribute` binds request parameters with matching names to the corresponding model attribute. For example:

```
```java
@GetMapping("/user")
public String getUser(@ModelAttribute("userId") String userId) {
 // userId parameter is bound to the "userId" model attribute
 return "user";
}
```
```

In this example, if there's a request parameter with the name "userId", its value will be bound to the `userId` parameter.

2. Initializing Model Attributes: When applied to a method, `@ModelAttribute` can be used to add model attributes to the model before handling a request. For example:

```
```java
@Controller
public class UserController {

 @ModelAttribute("user")
 public User getDefaultUser() {
 return new User(); // Initialize a default User object
 }

 @GetMapping("/user")
 public String getUser() {
 // The "user" model attribute is added to the model before rendering the
 view
 return "user";
 }
}
```
```

In this example, the `getDefaultUser()` method adds a "user" attribute to the

model with a default `User` object. This model attribute is available in the view for rendering.

Overall, `@ModelAttribute` is a versatile annotation that helps with data binding and pre-populating model attributes in Spring MVC applications.