In this tutorial we will show how to inject web application elements (form parameters, query parameters and more) into a RESTful Web service.

You can use the following annotations to bind HTTP requests to a RESTful web service:

@FormParam

@PathParam

@QueryParam

@HeaderParam

@CookieParam

@MatrixParam

Let's explore all the possible interactions.

@FormParam

The annotation **@FormParam** can be used to inject the parameters of a Web form into a RESTful Web service.

Here's an example

Here we are submitting a POST request containing two parameters email and password which are translated into the parameters "e" and "p" of the login method.

Here's the full example:

```
<form method="POST" action="login">


Email Address: <input type="text" name="email">
<br>
Password: <input type="text" name="password">
<input type="submit">


</form>

In Java :

@Path("/")
public class LoginService
{
  @Path("login")
  @POST
  public String login(@FormParam("email") String e, @FormParam("password")
String p) {
   return "Logged with " + e + " " + p;
  }
```

@PathParam

The @PathParam annotation binds the value of a path segment to a resource method parameter. For example, the following method would intercept an HTTP GET like **http://server:port/login/12345** and convert the PathParam "12345" into the String "id"

```
@Path("/")
public class LoginService
{


  @GET
  @Path("login/{zip}")
  public String login(@PathParam("zip") String id) {
   return "Id is " +id;
  }

}
```

@QueryParam

The @QueryParam annotation binds the value of a path segment to a resource method parameter. For example, the following method would intercept an HTTP GET like http://server:port/login?zip=12345 and inject the query parameter "zip" into the method parameter "zip"

```
@Path("/")
public class LoginService
{

 @GET
 @Path("login/{zip}")
  public String login(@QueryParam("zip") String zip) {
   return "Id is " +id;
  }

}
```

@HeaderParam

The @HeaderParam annotation extracts information from the HTTP header and binds it to a method parameter. Example:

```
@GET
public String callService(@HeaderParam("User-Agent") String whichBrowser) {
...
}
```

@CookieParam

The @CookieParam annotation reads an information stored as a cookie and binds it to a method parameter. Example:

```
@GET

public String callService(@CookieParam("sessionid") String sessionid) {

...
 }
```

@MatrixParam

The @MatrixParam annotation can be used to bind an expression containing several property=value to a method parameter. For example, supposing you were to invoke an URL likehttp://server:port/login;name=francesco;surname=marchioni

```
@GET

public String callService(@MatrixParam("name") String name,

                                @MatrixParam("surname") String surname) {

...
 }
```