



SSE | Tutorial 9

Task 1

Answer the following questions:

- What is an architecture style?
- What are the REST constraints? Which properties do they induce?
- What is the “Hypermedia” constraint and which examples of its application do you know?

Task 2

Convert the following fictitious SOAP-based service into a REST/HTTP-based one:

- If a HTTP standard verb or header exists for the required purpose, use it
- Reflect relationships between entities in the structure of the URL, not in the message body

Fill in the missing information into the following table:

SOAP Operation	HTTP Verb	URL	Request Header	Response Header	Request Body
getAllBooks			Accept: application/xml or Accept: application/json		
getBookById(bookId: int; language: {en, de, fr, nl})		/books/{bookId}			
updateBook(bookId: int; book: (title, authors))				Content-Type: application/xml Content-Length: 127	<book> <title>...</title> <authors>...</authors> </book>
getAllCategories					
getBooksInCategory (categoryId: int)					
addBook(categoryId: int; book: (title, authors))					
getBookImage(bookId: int);					
searchForBooksByKeyword(keyword: string)	GET				

Task 3

In the template *Task3-Template.zip* you will find a REST/HTTP Web service operating on a single resource – *User* = (*int id*, *string name*). Extend the service towards management of user bookmarks, with *Bookmark* = (*int id*, *string url*). Following operations should be implemented:

- Read all bookmarks / Search bookmarks by keyword
- Create a bookmark assigned to a user
- Delete a bookmark
- Read bookmarks of a given user

Assignment 1

Extend the service and the client from the task 3 with the following functionality:

- Bookmarks should be able to be assigned to *Categories* = (*int id*, *string name*).
- All categories can be listed
- Bookmarks of a given category can be listed
- Categories can be searched by a keyword