SOCKET COMMUNICATION

The communication with the Database Server is accomplished by TCP sockets connection. Services application and Database Server exchange messages in form of JSON strings containing Request or Response.

Request message has two attributes, operation and arguments. Operation describes the type of the request and arguments supplies necessary information for processing the request by database.

Response message has two attributes, status and content. Status describes if the requested operation has ended with success or an error occurred. The content of the response contains the result of the request. If the request operation is not recognized by the Database Server, it returns a response with Error status and content "Wrong operation".

Those are the types of request Operation with associated arguments and corresponding responses:

Who	Type	Request	Response
BookService	Search	{"operation":"Search","args":{"searchTerm":"java"}}	List<Book> for desired searchTerm json
BookService	AdvancedSearch	{"operation":"AdvancedSearch","args":{"year":0,"author":"author","isbn":"isbn","title":"java","category":"Science"}}	List<Book> for desired searchTerm json
BookService	BookDetails	{"operation":"BookDetails","args":{"isbn":"978-83-246-7758-0"}}	String json
BookService	MakeLibraryOrder	{"operation":"MakeLibraryOrder","args":{"isbn":"978-83-246-7758-0","libraryId":"ce78ef57-77ec-4bb7-82a2-1a78d3789aef","customerId":"0227f11c-8f66-4835-8283-021f0df8b558"}}	{"status":"OK","content":"Added"}
BookService	BuyBook	{"operation":"MakeBookStoreOrder","args":{"isbn":"978-83-246-7758-0","customerId":"0227f11c-8f66-4835-8283-021f0df8b558","bookstoreId":"eb3777c8-77fe-4acd-962d-6853da2e05e0"}}	{"status":"OK","content":"Added"}
BookService	AddCustomer	Add password	
BookService	Authenticate	{"email":"testemail@test.test", "password": "test"}	{"url":"empty","sessionKey":"68e2ff2c-31fc-4c41-a6d2-

			bf33d33ad364","userType":"Customer","name":"Johny"}
BookStore	BookStoreSearch	{"operation":"BookStoreSearch","args":{"searchTerm":"java","bookstoreid":"eb3777c8-77fe-4acd-962d-6853da2e05e0"}}	[json](#)
BookStore	BookStoreAdvancedSearch	{"operation":"BookStoreAdvancedSearch","args":{"year":0,"author":"author","isbn":"isbn","title":"java","category":"Science","bookstoreid":"eb3777c8-77fe-4acd-962d-6853da2e05e0"}}	[json](#)
BookStore	AddBook	{"operation":"AddBook","args":{"library":false,"book":{"isbn":"newIsbn","title":"newTitle","author":"newAuthor","year":0,"category":"Children"},"id":"eb3777c8-77fe-4acd-962d-6853da2e05e0"}}	{"status":"OK","content":"Added"}
BookStore	DeleteBook	{"operation":"DeleteBook","args":{"library":false,"isbn":"newIsbn","id":"eb3777c8-77fe-4acd-962d-6853da2e05e0"}}	{"status":"OK","content":"Deleted"}
BookStore	BookStoreOrders	{"operation":"BookStoreOrders","args":{"bookstoreid":"id"}}	List<BookStoreOrder> for given bookstore [json](#)
BookStore	ConfirmBookStoreOrder	{"operation":"ConfirmBookStoreOrder","args":{"orderId":"id"}}	{"status":"OK","content":"Confirmation was successful"}
Library	LIbrarySearch	{"operation":"LibrarySearch","args":{"searchTerm":"Tolkien","libraryid":"ce78ef57-77ec-4bb7-82a2-1a78d3789aef"}}	[json](#)
Library	LibraryAdvancedSearch	{"operation":"LibraryAdvancedSearch","args":{"title":"Lord","author":"author","year":0,"isbn":"","category":"Children","libraryid":"ce78ef57-77ec-4bb7-82a2-1a78d3789aef"}}	{"status":"OK","content":[{"isbn":"978-83-8116-1","title":"Lord of the Rings: Fellowship of the Ring","author":"J.R.R Tolkien","year":1954,"category":"Fantasy"}]}
Library	AddBook	{"operation":"AddBook","args":{"library":true,"id":"ce78ef57-77ec-4bb7-82a2-1a78d3789aef","book":{"title":"newTitle","author":"newAuthor","year":2017,"isbn":"newIsbn","category	{"status":"OK","content":"Added"}

		":"Science"}}}	
Library	DeleteBook	{"operation":"DeleteBook","args":{"library":true,"id":"ce78ef57-77ec-4bb7-82a2-1a78d3789aef","bookid":"fe993ec5-6d7b-4244-aa7d-0665b64e0e37"}}	{"status":"OK","content":"Deleted"}
Library	LibraryBookDetails	{"operation":"LibraryBookDetails","args":{"libraryid":"ce78ef57-77ec-4bb7-82a2-1a78d3789aef","isbn":"978-83-246-7758-0"}}	json
Library	LibraryOrders	{"operation":"LibraryOrders","args":{"libraryid":"id"}}	List<LibraryOrder> for given library json
Library	ReturnBook	{"operation":"ReturnBook","args":{"orderId":"id"}}	{"status":"OK","content":"Book was returned successfully"}