

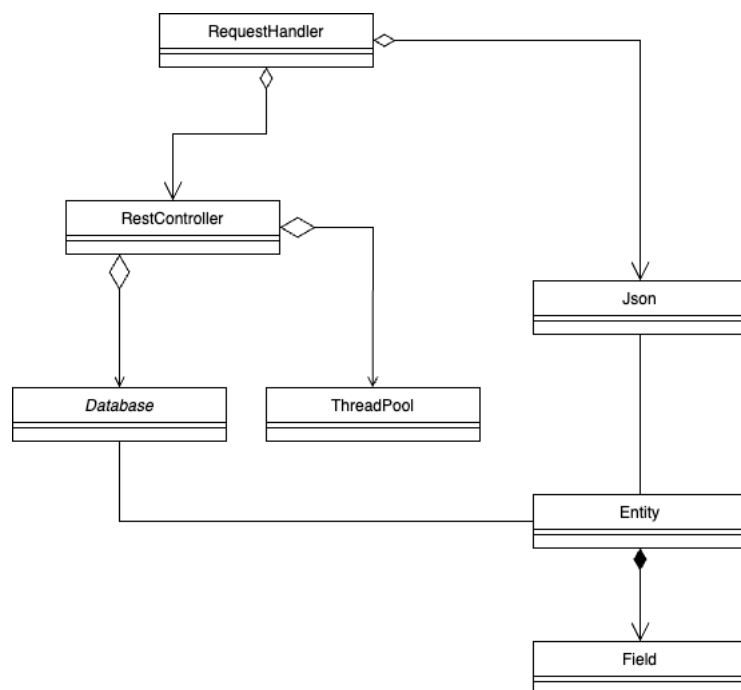
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1 REST API

The **REST API** for this project is built in C++ using a custom-made HTTP server based on UNIX sockets. The server make heavy use of variadic templates and can be extended with minimal effort. Multithreading is employed to increase performance using a listener thread and a thread pool with a configurable number of threads. The listener, after accepting a new client forwards its socket to the thread pool by creating a task to be scheduled. The server uses the **X DevApi** of the MySQL connector for C++, built from sources and linked statically to the final executable. To manipulate JSON objects the application uses the lightweight RapidJSON header-only library. It recognizes the following endpoints:

- `books/create` - insert a new book in the database
- `stock/create` - insert a new stock in the database
- `books/update` - update a book
- `stock/update` - update a stock
- `books/fetchAll` - list all books
- `stock/fetchAll` - list all stocks
- `books/delete` - delete a book
- `stock/delete` - delete a stock
- `book/fetchById` - fetch a book by its UUID
- `stock/fetchById` - fetch a stock by its UUID



UML diagram