
Final report - Web repository for development artifacts

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languages and their applications

28.06.2016

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1. My contribution

I was responsible for creating API for backend that offers necessary operations in order to handle versioned repository for supported types of artifacts and implementing related functionality using prepared BaseX database. Key functionality was covered by unit tests in order to explore bugs during very frequent changes. That required:

- Publish interface supporting operations over repository
- Extract metadata
 - **XSD** files - extract simple types, complex types and its elements and attributes
 - **WSDL** files - extract operations with its requests and responses
 - **WAR** files - extract web.xml and its informations about listeners and filters
- Parse metadata to XML and store them into database
- Implement querying the database and transforming results into Java objects
- Validate the functionality with using unit test

There were used several technologies during the development. DOM, SAXON for extracting the metadata, JAXB for (un)marshalling to/from XML and XQuery in order to query database.

The result is a product of many refactorings and hours of negotiations with the team leader, however it is tested and hopefully it meets requirements.