

Below is the technical documentation for DataExplained. It should serve as an overview of the architecture as well as a guideline for setting up the necessary infrastructure.

Architecture

DataExplained is a web-based application which is built on the MEAN stack. MEAN is a JavaScript software stack used for building dynamic web applications. It builds on the components of MongoDB, Express.js, Angular and Node.js. The application is run on an Amazon EC2 instance with RStudio Server (<https://www.rstudio.com/products/rstudio/download-server/>) installed.

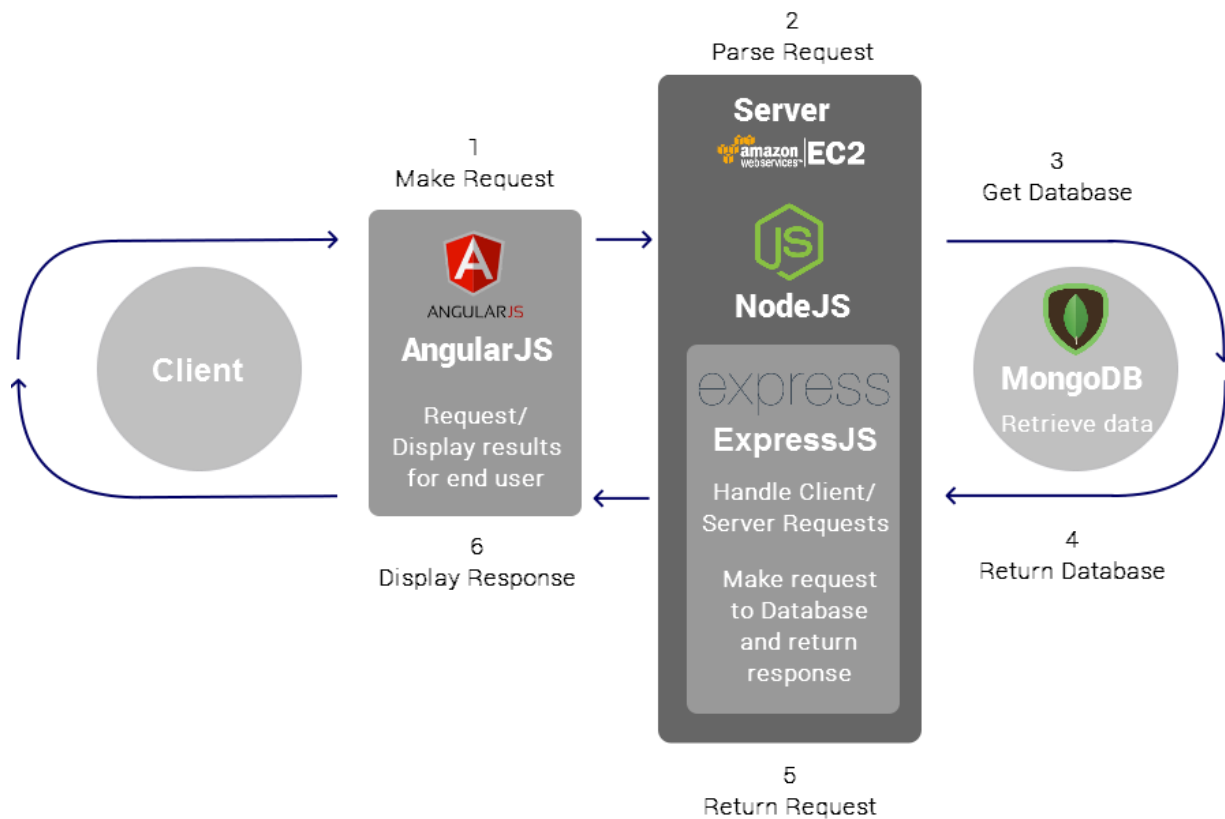


Figure S9-7. Architecture of DataExplained; figure based on Team In India (2017)

A major advantage of the MEAN stack is that both the client and the server are written in JavaScript (also known as full-stack JavaScript application). JavaScript objects can easily be transformed to JSON objects, which can easily be persisted in MongoDB.

DataExplained makes use of Grunt (build tool), Bower (package manager for web dependencies), and NPM (package manager for Node.js dependencies).