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Review of REST Ful Service Using MEAN Stack for Real Time Big Data Architecture

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ABSTRACT: Restful web services are used to use the native operations of http Get, Post, Put, Delete to map database operations create, read, update, delete. MEAN is an open source platform to develop RESTful web Services. Representational State Transfer (REST) is an architectural style that specifies constraints, such as the uniform interface, that if applied to a web service induces desirable properties, such as performance, scalability, and modifiability that enable services to work best on the Web.

KEYWORDS: MEAN Stack, API, Angular2, Mongoddb, REST

I. INTRODUCTION

The Representational State Transfer also knows as REST or RESTful. The RESTful model is used for RESTful web services. Now a day the internal management of hotel is very extended process, so that we are overcome that by using MEAN stack and RESTful API. The MEAN stack is a web development tool and the combination of all these four: MongoDB, Express.js, Angular.js, Node.js used as back-end services.

A. REPRESENTATIONAL STATE TRANSFER

The Representational State Transfer i.e. RESTful model consists of four vital operations of HTTP like GET, POST, PUT and DELETE. These four operations are same to the general database operations like READ, CREATE, UPDATE and DELETE. When the services use REST architecture, they are called as RESTful API's. (Application Programming Interface) or REST API's. REST allows easy evolution of an API design and that's the only key with REST we are creating the API. The concept of RESTful API is very another reason is that is a standard that everyone can implement and use.

REST should we used if it is very important for us to minimize the coupling between client and server components in distributed application. This going to be used by many different clients that we do not have control over or it may also be the case if you want to be able to update the server regularly without needing to update the client software.

II. THE MEAN STACK

Developing a web driven application that can be mobile based or browser based. Typically requires the supplying of some server side infrastructure as well as the development of some code to run on it such Code has some API's. For many years back, the go to infrastructure in such situation's it refer to as the LAMP Stack that can involve Linux, Apache, MySQL and PHP, Perl or Python. But now days the MEAN stack is comes into picture. A big thanks to Java Scripts applicability to both client and server side scripting. Now there is another stack widely used and alternative to LAMP is the MEAN Stack.

The MEAN Stack is more modernistic stack that's challenging the WAMP, LAMP, MAMP,XAMPP Stack. It is completely JavaScript powered so that it makes both time and money saver. MEAN Stack includes.

- A. MongoDB: Database.
- B. Angular2: Frontend Framework.
- C. Express.js: A web framework for Node.js.
- D. Node.js: A web server environment or backend platform.

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A. MONGODB:

MongoDB is the very much popular NoSQL database. It was the document oriented database as well as it provides flexibility.

Now a days most of the web services wants some sorting of the storage, but the SQL-based database like MySQL, SQL server etc does not fulfil this requirement. So that, it overcome by NoSQL i.e. no any SQL database like MongoDB.

mongoDB is the database which does not know what data and which data and how much data is to be stored in the database. Mongoose is Node.js library which afford the MongoDB object mapping as similar as ORM(Object Relation Mapping)

B. EXPRESS.JS

Express.js is the web server frame work used for Node.js. It afford the feature to the Developer to create the web server in easiest way as well as it provides to handle the routing HTTP operations like GET and POST.

C. ANGULAR2

Angular2 is the framework for single page application development and it is the front end JavaScript framework. It provides the client side framework. Angular2 is very much popular and useful to developer to develop their web-server.

D. NODE.JS

Node is the more important tool of the stack. It can be used to develop a lightweight and high performance webserver environment and ideal to developing web service API's. Node.js is used by much number of companies such as PayPal and Wal-Mart.

III. ARCHITECTURE DIAGRAM

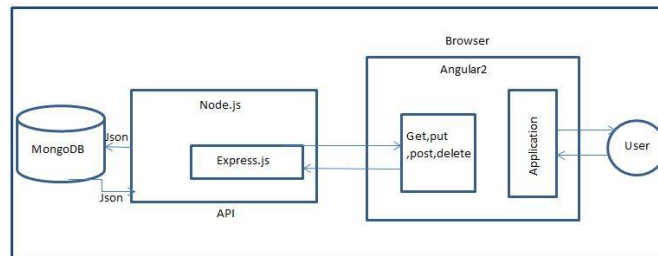


Fig: System Architecture

The user is interfacing with this angular2. In these angular2 includes various services & the different controllers. We are using angular2 in these paper in a mean stack. Actually angular1 is mostly used in normal mean stack. The get, put, post, delete these methods are used. The commonly full page loaded in the HTML webpage but in this paper we are using the API. The API is calling then the component is loaded. The input and output are in JSON format.

The Node.js & Express.js is present in the API. The various models and controllers are involved in the API. The two way data binding possible between the browser and Angular2. We are using Mongoose in the MongoDB. We are using object relation mapper in MongoDB for whatever data we can enter anything in the database they can be restricted for the data.

We are creating application also in offline or online. we are giving any data into that application that time assign ID to the data. These data we want to find or delete the methods are used i.e. findbyID and deleteID.

The user is connected to the angular 2 and that time application which is present in that angular2 calls to the API loads then entered data present into the mongoDB these data will show on the page & the data is not present in the mongoDB only component is loaded.



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IV. CONCLUSION

In this paper we are developing a RESTful web service using MEAN stack. This system is convenient and effective. It will also provide quality of service. Overall conclusion is that this is an efficient, scalable and reliable system.

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