Rami Mazloum

11 February 2020

2.0

Data processing

Building API and visual the data from it

Contents

[Introduction 2](#_Toc32313790)

[Why using Node JS to create API? 2](#_Toc32313791)

[The Pros of Node.js 2](#_Toc32313792)

[The Drawbacks of Node.js 2](#_Toc32313793)

[The Conclusion 2](#_Toc32313794)

[Why using JavaScript for visualization? 3](#_Toc32313795)

[Why using Chart JS Library ? 3](#_Toc32313796)

[How to start the project? 4](#_Toc32313797)

[requirement 4](#_Toc32313798)

[Instruction 4](#_Toc32313799)

# Introduction

For this project, we will build an **application programming interface** (API ) using Node JS to get information from our movie database that we had to create and later we will visuals the results from the API as a graph using JavaScript and Chart Js library .

# Why using Node JS to create API?

the simplest definition of Node.js is that it is a JavaScript run-time environment that helps in the execution of JavaScript code server-side. It is an open–source cross-platform JavaScript that helps in the development of real-time network application.

It offers the developers event-driven I/O APIs and asynchronous. It can also interpret JavaScript code via Google’s V8 JavaScript engine.

Moreover, it operates on a single threaded event based loop to make all executions non-blocking. However, you cannot consider Node.js as not a framework and it has nothing to do with the PHP, .NET or JAVA.

Let’s get down to the major benefits and drawbacks of using the Node.js as server-side programming.

## The Pros of Node.js

Let’s get down to the major advantages of using Node.js as server-side programming:



## The Drawbacks of Node.js

* Does not have a Strong Library Support System

## The Conclusion

The Node.js is more advantageous to the developers in comparison to its disadvantages. What’s more important is the fact that it has extended the area of JavaScript application and can be evidently used for both frontend as well as backend servers.

# Why using JavaScript for visualization?

I had previous knowledge and it’s has a lot of libraries that I can use.

# Why using Chart JS Library ?

An extremely popular (40k stars) library of open source HTML 5 charts for responsive web applications using the canvas element. V.2 provides mixed chart-types, new chart axis types, and beautiful animations. Designs are simple and elegant with 8 basic chart types, and you can combine the library with [moment.js](https://blog.bitsrc.io/11-javascript-utility-libraries-you-should-know-in-2018-3646fb31ade) for time axis.

A picture containing sky

Description automatically generated

I had chosen to use Bubble Chart because it’s easy for the customers to understand the data I want to visuals (Y: the budget of the movie, X: the average vote for the movie ) and the bubble is the movie.

# How to start the project?

## requirement

1. NodeJS
2. Xampp
3. Visual studio code

## Instruction

Open XAMPP and run Apache and MySQL

1. Open Myphpmyadmin
   1. Create new database and name it " movie ".
   2. Import the dataset using ( movie.sql ).
2. Open visual studio code
   1. Open the folder node\_module
   2. Open the terminal and type (npm install express --save) => Enter
   3. Type (npm start) => Enter

now the server is working

1. Copy the file (visualize) to xampp/htdocs
2. Open your browser and type (http://127.0.0.1/visualize/index.php )