Online Retail System

Be a Part of Future

Built Using a Cutting Edge Technologies & Services

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Table of Contents

Purpose

Why Online Retail System?

We designed it to bring everyone into this era of E-Commerce, to obtain financial stability. As we Know That Covid-19 has a negative impact on individuals' businesses from its first case of discovery till now having duration From November 2019 till June 2021 is 1.7 years which Impacting the Businesses, employment of people. In these tough conditions, we have to provide a way a light to these people so that they can start earning by selling online. To gain the financial stability and let the worries off.

"Ecommerce isn't the cherry on the cake, it's the new cake"

Jean Paul

If we are not realizing its importance till now, so we will be left behind just like other technologies from western world.

"The e-commerce industry is a force that no investor can afford to ignore.",

Suisse CUSHLA SHERLOCK

Data Base (Mongo Db)

We used a fastest growing Database which will compete the others. Mongo DB due to its multi features & has an ability to handle unstructured data.

From Market / Investors Point of View

Gave the profit of 1020% in last five years, 1 share value is 342$, while Oracle based MySQL gave profit of only 105% in last five years, 1 share value at 81.64$.

Why Mongo DB?

The reasons to choose Mongo DB as a database for Online Retail System are:

GridFS:

GridFS is a framework to store and access large set of data. It divides the data into chunks and store them into different documents, gives you all this functionality for free.
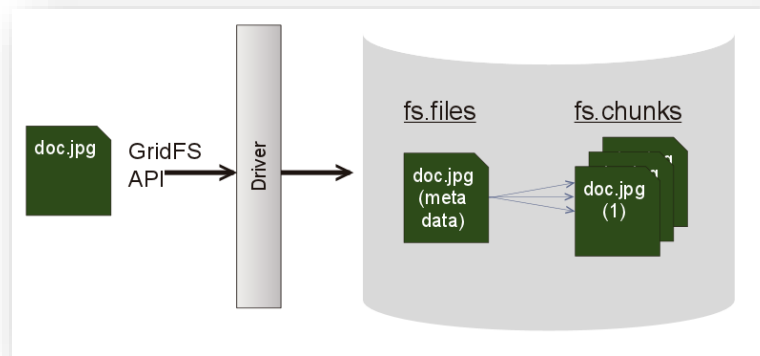
Figure 1 GridFS Process

Ad Hoc Queries Support:

Ad-Hoc Queries are those type of queries which are not known while structuring the database. MongoDB supports these types of queries. These queries can also be updated in real time.
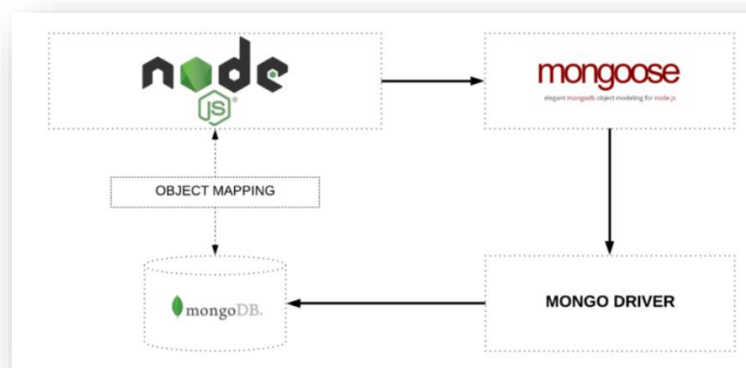
Schema-less Database:

In Mongo DB, different documents can have different fields. The size, content, type may vary for different fields. So, there is a flexibility in dealing with data. In MySQL, these are static and we need to define the Data Type.

Document Oriented:

MongoDB is Document Oriented Database. There are different documents to store different types of data. Each document has unique system generated key. We have tables and rows-columns structure for SQL, we have fields in key values pair, with MongoDB.

How we used MongoDB in Project?

We used Mongo DB in our project using Mongoose. Mongoose is an Object Data Modeling (ODM) library for MongoDB and Node.js. It manages relationships between data, provides schema validation, and is used to translate between objects in code and the representation of those objects in MongoDB.

As users come to site & continue to Login / Signup, the data they provided is saved on MongoDB Database.

The Data From the user and server end is secured using Bit Crypt, to be just on save side if the database is hacked the hacker will not be able to get passwords, the other techniques we used to make it secure is using IAM Role not Root Access to Database & the site is also end to end secured using Cloudflare.

As user data is securely saved as well user buy record with date, product Id. User is able to access its dashboard to see previous orders or shipping date.

The other thing we used is that products' data is saved on Database and we get it from there, which provide smooth & fast access, using the Filtration Query for products. We get the data using API.

The language we used:
React:
We choose it because react also allows us to create reusable UI components. Allows developers to create large web applications that can change data, without reloading the page. The main purpose of React is to be fast, scalable, and simple. It's used for handling the view layer for web and mobile apps.

Also using a bunch of JavaScript, HTML, CSS and React Bootstrap to Be more meaningful and useful using an eye-catching theme and color.

Pages
- **Homepage**
  Where the user will be able to see all the products and navigation bars to other pages.
- **Login / Signup Page**
  It provides an easy-to-use Signup / Login page, Login page ask for email & password only. Signup page ask for First Name, Last Name, Email or Mobile Number, Address & a Password, please note that all data are secured.
- **User Profile Dashboard Page**
  It provides user a dashboard with User ID, Previous Order History with date, time & cost.

- **Product Page**
  It provides a deep detail of product with cost, description & images from different angles & the ability to product directly to cart.
- **Cart Page**
  User will be able to see the products in cart, delete, increase, decrease functionality available and redirect button to checkout page.
- **Checkout Page**
  User can confirm the order from here. This page asks the user name, number, address and payment method, code, debit, credit & PayPal available.
- **Contact us / Complain / Feedback Page**
  Provide easy way to contact the team for information, feedback or for any error occurred.
- **About us Page**
  About the store.

Other Technologies & Services:

To be more productive we use a bunch of other services like:

Cloud Flare:

Used it for enhanced security. Cloudflare is an American web infrastructure and website security company that provides content delivery network services, DDOS mitigation, internet security etc.

NodeJS:

Node as a communication between the services. Node allows developers to write JavaScript code that runs directly in a computer process itself instead of in a browser. Node can, therefore, be used to write server-side applications with access to the operating system, file system, and everything else required to build fully-functional applications.

PayPal API (Debit / Credit Card):

We used it to provide easiness to order from the site using the PayPal account, user also will be able to pay using a debit / credit card, it should be using a Visa or Mastercard services, otherwise COD (Cash on delivery is available).

Node Mailer:

To get in touch with customer, we used a Node Mailer. Node Mailer is a module for Node.js applications to allow easy as cake email sending.

Name Cheap:

We used Name Cheap for Domain & Hosting; it can handle easily 7–12 k daily traffic efficiently.

Canva Pro:

For Images, Presentation, Designing of Products, we used a Canva Pro. Canva is a graphic design platform, used to create social media graphics, presentations, posters, documents and other visual content. The app includes templates for users to use.

Thankyou.

"Chase the vision, not the money; the money will end up following you."

Tony Hsieh, CEO of Zappos

Code

The Complete Code of The Project Available at GitHub (Version Control System). Here commit shows the credibility of hard work

https://github.com/AZHARTHEGEEK/ecommercesite

or at Google Drive

http://bit.ly/projectdatadbms

Presentation File Available at http://bit.ly/projectdatadbms

Reference & Sources

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