

Node.js Certification Training

Certification Project

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To Build A Media App Using Node.js, MongoDB, EJS Template, REST APIs and JWT

Background:

“Update 24x7” is a Newspaper company that delivers the latest news regarding weather, sports, business, entertainment, and current events happening worldwide. In order to increase the customer reach, they have decided to go online. So, they are planning to build a dynamic web application. They also want a separate admin page to manage the news data. You are hired as a Node.js Developer, your job is to develop a web application as per the company's requirement.

Goal:

The goal of this project is to develop two web applications:

Customer facing

The Customer facing web application is categorized into Latest News, Weather Update, Live Group Chat and Sports Section. News data related to all the categories should be stored and fetched via MongoDB.

Admin

At Admin page, admin should login to website using their credentials, which are authenticated via JWT. Admin can add, edit and delete news from the database and create API which can be consumed in Customer facing web application.

Finally, the both web applications will be deployed in separate docker containers and incoming traffic will be managed by a reverse proxy server Nginx.

Web Application Requirements:

- **Frontend:** JavaScript, HTML and CSS
- **Backend:** Node.js, Express Framework and make use of WebApi for fetching weather data (<https://openweathermap.org/api>)
- **Database:** MongoDB
- **Deployment Tools:** Docker and Nginx

Project Implementation: -

Web Application Pages:

- Home
- Sports
- About Us
- Contact Us

- 3 Latest News
- Chat Box



Fig: Overview Of Web Application

1) Home page should include following sections:

- Header
 - Weather Report
 - 3 Latest News
 - Image Gallery
 - Chat Box for open discussion
 - Footer
- News data should be stored and fetched through MongoDB using admin dashboard (managed by Admin).
 - In the latest news section make sure news will be displayed on the basis of current date and it should pick date from user system.

2) Header:

- Header is the top section of your web application which consists the tabs shown below:

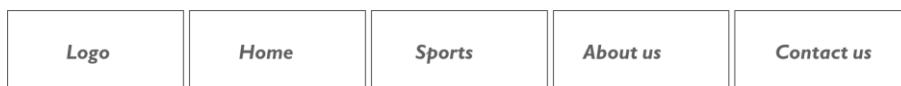


Fig: Header of Web Application

- This header section should appear on every page of your web application.

3) Footer:

This should be added to bottom of each page. Here you can add page number, copyrights and contact number.

4) About Us:

Here you have to provide information of your company as well as its location using google map.

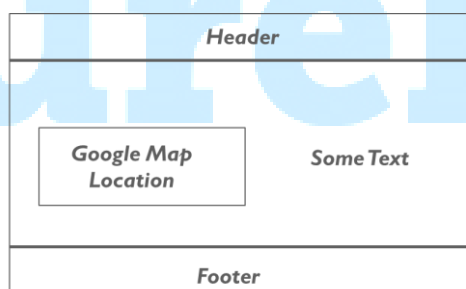


Fig: About Us Page

5) Contact Us:

Create a HTML form through which user can send query and all emails should be received on generic id.

| | |
|---------------------------------------|----------------------|
| Header | |
| Email | Query |
| <input type="text"/> | <input type="text"/> |
| <input type="submit" value="Submit"/> | |
| Footer | |

Fig: Contact Us Page

6) Sports Section should display latest sports news (design it as per your creativity).

7) Weather:

Use <https://openweathermap.org/api> to fetch latest weather report and display on the screen by getting user location from browser.

| | | | |
|---------|--------------|-------------|-----------|
| Weather | Weather Icon | Temperature | City Name |
|---------|--------------|-------------|-----------|

Fig: Weather Section

8) Image Slider:

It should display the images related to News.



Fig: News Images

9) News details:

When you click on any of the latest news section it should navigate you to News Details page. This page should display all the required information/story of the selected news category. Design the layout of this page as shown below-

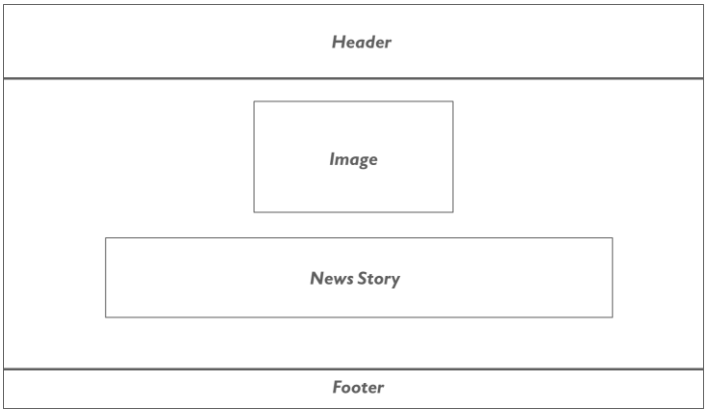


Fig: News Details Page

10) Chat Box:

In this section people can have group discussion on any particular topic.

Admin Application:

It should include following sections -

- Register
- Login
- Add New News
- Data View List

| | | | |
|-------|--------------|-------|----------------|
| Home | Add New News | Login | Register |
| Sr.no | Date | News | Operation |
| | | | Edit |
| | | | Edit Delete |

Fig: Admin Application

1) Register and Login pages:

Design the Register and login pages as shown below. Admin-User should be authenticated using JWT.

Register page form with three input fields: Name, User Name, and Password.

Fig: Register page

Login page form with two input fields: User Name and Password.

Fig: Login

2) Add New News:

Design this section as shown below.

Add New News form. The top navigation bar contains links for Home, Add New News, and Logout. The main form area contains a Date input field, a News input field, and an Add button.

Fig: Add New News

Deployment:

This both web applications should be deployed in docker containers and incoming traffic should be managed by a reverse proxy server Nginx.

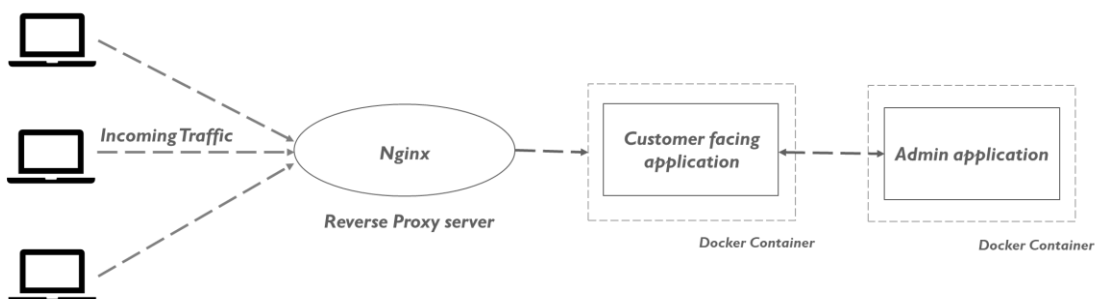


Fig: Application Deployment using Nginx and Docker

How To Submit The Project?

Submit the web applications by creating a docker image and upload it over Docker Hub. As well as same code should be available for review through GitHub.

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