

Node.js Certification Training

Certification Project

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

Background:

“Update 24x7” is a company which delivers news via Newspaper. 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 the 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 through JWT. Admin can add, edit and delete news from the database. Create an 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:

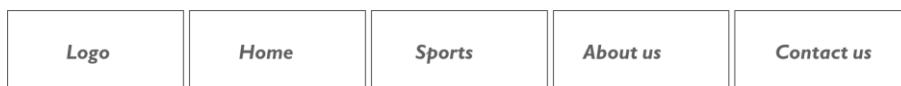


Fig: Header of Web Application

- 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.

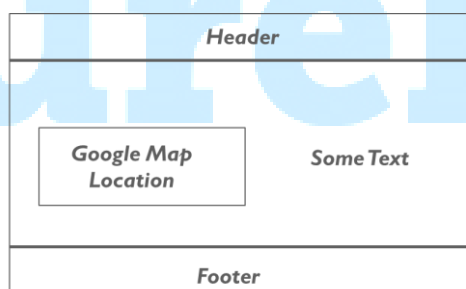


Fig: About Us Page

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
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Fig: Weather Section

8) **Image Slider:**

It should display the images related to News.



Fig: News Images

9) **Chat Box:**

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

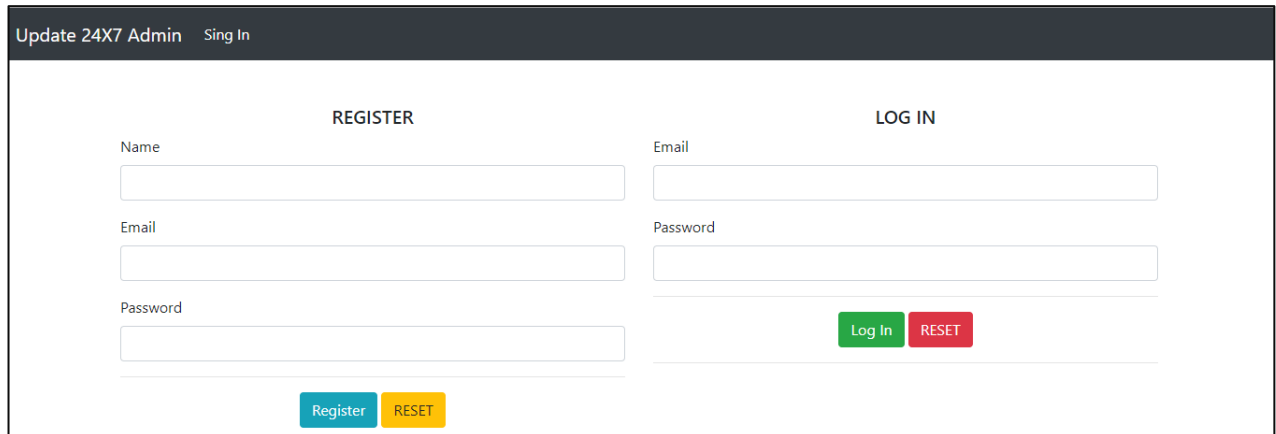
Admin Application:

It should include following sections -

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

1) Register and Login pages:

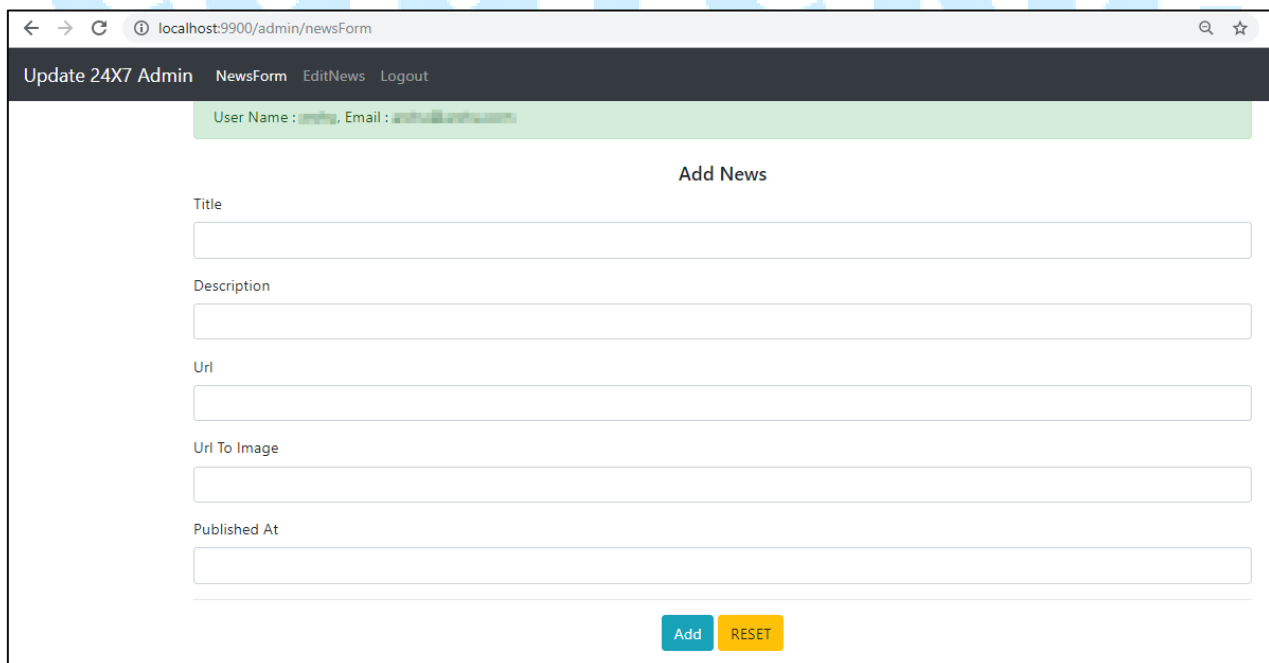
Design the Register and login pages as shown below. Admin-User should be authenticated using JWT.



The image shows a web interface for a system named 'Update 24X7 Admin'. It features two main sections: 'REGISTER' and 'LOG IN'. The 'REGISTER' section has three input fields: 'Name', 'Email', and 'Password', followed by 'Register' and 'RESET' buttons. The 'LOG IN' section has two input fields: 'Email' and 'Password', followed by 'Log In' and 'RESET' buttons. The interface is clean with a dark header and a light background for the forms.

2) Add New News:

Once the user **Logs in** into the page. Design this section as shown below.



The image shows a web browser window displaying the 'Add New News' page. The browser's address bar shows 'localhost:9900/admin/newsForm'. The page has a dark header with 'Update 24X7 Admin', 'NewsForm', 'EditNews', and 'Logout' links. Below the header, a green bar displays the user's name and email. The main content area is titled 'Add News' and contains five input fields: 'Title', 'Description', 'Url', 'Url To Image', and 'Published At'. At the bottom, there are 'Add' and 'RESET' buttons.

Fig: Add New News

3) Data View List

Design this section as shown below.

Update 24X7 Admin NewsForm EditNews Logout			
User Name : ██████, Email : ██████			
News List			
Show 10 entries	Search: <input type="text"/>		
Title	Description	Published At	Edit/Delete
Air Force chief Dhanoa warns Pakistan, says IAF always alert along Indo-Pak border	After Army Chief's 'bloodier nose' warning to Pakistan, Chief of Air Staff of the Indian Air Force BS Dhanoa sent a stern message to the neighbouring country on Tuesday saying the Indian Air Force is always alert in a state of alert along the Indio-Pak border to prevent any misadventure by Pakistan.	20th Aug 2019	Edit Delete
Chandrayaan 2 successfully enters lunar orbit, Isro boss says entry at 9:30 am was perfect	Isro has said the significant milestone was achieved after Chandrayaan 2's liquid engine was ignited for around 1738 seconds. Isro has said in a statement, "The health of the spacecraft is being continuously monitored from the Mission Operations Complex (MOX) at ISRO Telemetry, Tracking and Command Network (ISTRAC) in Bengaluru with support from Indian Deep Space Network (IDSN) antennas at Bylalu, near Bengaluru. All the systems of Chandrayaan 2 are healthy." Isro also said that the next lunar-bound orbit manoeuvres is scheduled for Wednesday, August 21, between 12:30 pm and 1:30 pm	20th Aug 2019	Edit Delete
India to offer 30-day e-tourist visa for \$25 during peak season	ourism minister Prahlaad Patel has announced e-tourist visas for peak and lean seasons in the India. India will now offer a 30-day e-tourist visa for a fee of \$25 during the peak tourism season between July to March	20th Aug 2019	Edit Delete

Deployment:

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

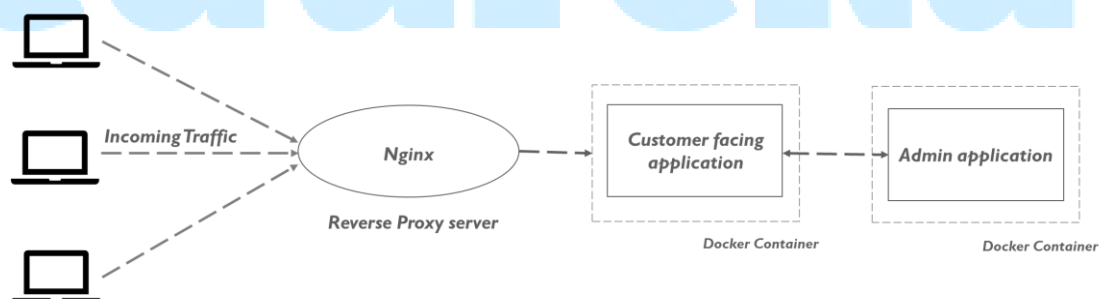


Fig: Application Deployment using Nginx and Docker

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.