Newsprism

A REPORT

ON

PRACTICAL TRAINING

(For the Partial Fulfillment of Btech in Computer Science & Engg.)

TAKEN AT

GRRAS Solutions Pvt. Ltd.

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Mr. GAURAV KUMAWAT
(H.O.D. CS DEPARTMENT)

Mr. SANJAY RATHORE (PROJECT INCHARGE)

Submitted by:

NARESH MALI (19ETCCS204) (TEAM LEADER)

ASHISH JAIN (19ETCCS200)

HARSHIT PANERI (18ETCCS041)

(IInd Year - B2 Batch)

Department of Computer Science & Engineering

Techno India NJR Institute of Technology, Udaipur (Raj.)

TECHNO INDIA NJR INSTITUTE OF TECHNOLOGY UDAIPUR (RAJ.)

Approved by A.I.C.T.E., New Delhi & Affiliated by Rajasthan Technical University

Kota, Rajasthan

Estd. 2003



Certificate

This is to certify that the report entitled "Newsprism" has been undertaken and written under my supervision and it describe the original project work carried out by Mr. Naresh Mali, Mr. Ashish Jain, Mr. Harshit Paneri in Department of Computer Science Engineering from TEHNO INDIA NJR INSTITUTE OF TECHNOLOGY, UDAIPUR.

TECHNOLOGY, UDAIPUR.	
	Mr. Sanjay Rathore
	(Project Incharge) Date:
Forwarded by:	
Mr. Gaurav Kumawat	Dr. RS Vyas
(H.O.D. CS Dept.)	(Director Sir)
Date:	Date:

PREFACE

The main objective of any computer science student is to get as much of practical knowledge as possible. Being an able to have a practical knowledge by developing a project is a life time experience. As practical knowledge is as important as theoretical knowledge we are thankful of having a project. Through the development of the project we had a great experience of various strategies that can be applied in development of project. This project is the stepping stone for our carrier.

We are pleased to present this project. Proper care has been taken while organizing the project so that it is to comprehend also various software engineering concepts as been implemented. We learn to tackle different real-world problems that strike while developing any real-world computer application.

In this project report we have included various concept, effects, and implication regarding to our project.

This report consists of six chapters, 1st chapter gives you an introduction about project, titled as "Newsprism" where in this we describe about project which a base of our project. The 2nd chapter of this report mention about the tools and methodology that we have use for developing the project. The 3rd chapter brings information about all the design model of our project. In 4th chapter provide an idea about how the website works. And the last chapter we mention the conclusion, Future scope, etc.

During this project session we come to know how to work in a group and what discussion are made about real world objects and problems arise during development phase and also, we get an idea how to develop a real-world project in different modules and then combined them the main application. We also work on a new platform, we had acquired sound experience of team work and practical knowledge. Also learn that how to use web application. This platform is very different for using in our project session. When we work on this, we faced many difficulties but we find solutions of these difficulties.

ACKNOWLEDGEMENT

"Life is a journey of excellence. Every mile that one reaches during the external journey is marked by guidance & support of the near & dear ones & this end beaver of mine is no inception".

We would like to express our sincere thanks to **Dr. RS Vyas** (**Director Sir**) for giving us this opportunity to undertake this project. We also wish to express our gratitude to **Mr. Gaurav Kumawat** (**HOD Computer Science**) for his kind-hearted support.

We specially wish overwhelming gratitude and immense respect to **Mr. Sanjay Rathore** (**Project In-charge**) for his valuable guidance, content encouragement and contractive cynicism in bringing this manuscript in the present shape.

We also wish to express our indebtedness to our parents as well as our family member whose blessings and support always helped us to face the challenges ahead. At the end we would like to express our sincere thanks to all our friends and others who helped us directly or indirectly during this project work.

Last but not the least Thank you God.

COMPANY PROFILE

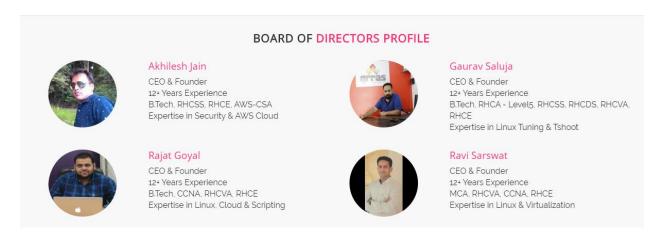


Grras Solutions Pvt. Ltd.

GRRAS Solutions specializes in the domain of Red Hat Linux training, AWS Cloud Computing, Digital Marketing, Python, Website Design & Development, Bigdata haddop for In-house training, Industrial/Internship training, Online Learning and Corporate Training. Being an authorized and renowned partner of Red Hat since 2008, from last 12 years we hold special badge of honor for providing excellent business and learning facility across India. We also have our own Pearson VUE examination center, Redhat Authorized Centre & Kryterion Authorised Testing Center.

Our Story:

We are branched out in Jaipur, Ahmedabad, Indore, Pune, Nagpur, HimmatNagar, Nasik ,Gurgaon, Delhi, Raipur. We have a registered office in Reston VA, USA also, for our online training programs. In coming years, our motive is to open more centers in India in leading Cities of Chandigarh, Lucknow, Bhopal, Bangalore etc . GRRAS provides proven training content through a combination of delivery model and vivid customer experience. Spread across 12 cities across the nation, our company has assisted over Six thousand working professionals in kick starting their career.



Our Mission:

GRRAS Solutions Pvt. Ltd. seeks to create and promote implementation of practical learning approach focusing on industry driven content. Our aim is to help professionals across the globe obtain the technical skills they need to strike through excellence in today's digital market.

Our Vision:

We have been successful in embarking our presence across the nation and now covet to craft worldwide existence through our placement oriented training program. In the coming future we vision ourselves as an accredited university that provides thorough assured employability to the students.

Awards:

2012 - Best Amazing Partner of RedHat

2013 - Best North India Partner of RedHat

2016 - Best Placement Providers in Jaipur

2017 - Highest Global Certifications

2018 - Best Training Providers

Recognitions:

Our values define us and what we stand for as a company.

Bring worldwide change

Upgraded world: Better World

Our commitment

Unity is Strength

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INTRODUCTION

1.1. Introduction of Newsprism

- The project Online News Portal aims at establishing a complete portal for providing news. This portal can provide up-to-date news information on the Internet. The portal will reside of sections addressing different information needs. It informs, provides extensive resources and services online for the general public. It provides a vast range of new opportunities for feedback, customization of content instant publishing, linking, articles etc. It is concerned with the development of a system.
- This project admin post latest news. User can view latest news category wise like Bollywood, Movies, Business, National, International, Entertainment, Sports news etc. The online news portal system may serve a variety of purposes. This system provides many newspapers: headlines and links to important national and maybe local news, weather forecasts, the day's prime time television listing, stock market reports, and sports headlines. In this system we can provide a special feature such as COVID-19 tracker.
- This system can save times for users. It can also give the information about entertainment news, health news, dating and romance tips, a horoscope, trending topics, hyperlinks to related sites, a search engine, and sometimes free, web-based email. This Online News Portal System provides users read latest news online.
- The main aim of this project is to develop a newspaper where everyone of a society can read recent news, events, educational things, sports etc. This system is providing up-to-date news information of our city. Editor and journalist identity is scrutinized and then the news is uploaded.
- Without any payment or login he/she can also contact us to give suggestions and can also give us feedback related to our site.
- New news can be added or post by the admin and only admin have the authorized to update or delete any news.
- Admin have to right to give authority to other for insert, update and delete the news.

1.2. The Functionality given in the website are:

- Business News Page.
- Entertainment News Page.
- Sports News Page.
- Health News Page.
- Science News Page.
- Sports News Page.
- Contact Us Page.
- Admin Login Page.
- Contact Details Page.

1.3. Why we need to make this website?

- The main objective of this website is that to provide the all type of instant and important news related to Magazine, Business, Sports, Art, Politics, Travel, breaking news, etc.
- Manage the information of Magazine, Business, Sports, Art, Politics, Travel, Breaking news.
- Integration of all records of news.
- Those people who don't have time to read the newspaper and always linked with internet can get more informative.
- Publish news about local region, town and city, national and international. End user can upload news from anywhere at any time through web, mobile, tables, etc. with registered their login id and password.

1.4. Purpose

- This portal is open to public and end user or customer can come here and browse the desired news.
- You don't have to wait for newspaper in morning.
- Any time any news related to different fields will be available.

1.5. Merit and Demerits of the project:

Merits:

- Extremely fast news.
- Flexible to access.
- Completely free.
- No personal information required.
- Interactive news.
- Environmentally friendly.
- Quick and easy way to get the news.
- Provides details efficiently.
- User friendly interface.
- Availability of multiple categorized News at one place at same time.
- Any time any news related to different fields will be available.

Demerits:

- Not accessible in some part of the world.
- Difficult to navigate the internet.
- Only those person can use this website who know the basic computer knowledge.

TOOLS & METHODOLOGIES

Now we will be describing all the languages, platforms tools and technologies are used in order to complete this project.

2.1. Node.js

What is Node.js?

Node.js is a server-side platform built on Google Chrome's JavaScript Engine (V8 Engine). Node.js was developed by Ryan Dahl in 2009 and its latest version is v0.10.36 Node.js is an open source, cross-platform runtime environment for developing server-side and networking applications. Node.js applications are written in JavaScript, and can be run within the Node.js runtime on OS X, Microsoft Windows, and Linux. Node.js also provides a rich library of various JavaScript modules which simplifies the development of web applications using Node.js to a great extent.

Node.js = Runtime Environment + JavaScript Library 12

Features of Node.js:

Following are some of the important features that make Node.js the first choice of software architects.

- **1. Asynchronous and Event Driven-** All APIs of Node.js library are asynchronous, that is, non-blocking. It essentially means a Node.js based server never waits for an API to return data. The server moves to the next API after calling it and a notification mechanism of Events of Node.js helps the server to get a response from the previous API call.
- **2. Very Fast-** Being built on Google Chrome's V8 JavaScript Engine; Node.js library is very fast in code execution.
- **3. Single Threaded but Highly Scalable-** Node.js uses a single threaded model with event looping. Event mechanism helps the server to respond in a non- blocking way and makes the server highly scalable as opposed to traditional servers which create limited threads to handle requests. Node.js uses a single threaded program and the same program can provide service to a much larger number of requests than traditional servers like Apache HTTP Server.
- **4.** No Buffering Node.js applications never buffer any data. These applications simply output the data in chunks.
- **5. License** Node.js is released under the MIT license

Who uses Node.js?

Node.js is used by eBay, General Electric, Go Daddy, Microsoft, PayPal, Uber, Wiki pins, Yahoo!, and Yammer to name a few. Projects, Applications, and Companies Using Node.

Concepts:

The following diagram depicts some important parts of Node.js which we will discuss in detail in the subsequent.

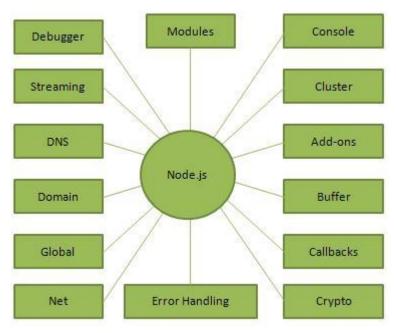


Fig 2.1 – Concepts of Node.js

Where do we use Node.js?

Following are the areas where Node.js is proving itself as a perfect technology partner.

- 1. I/O bound Applications.
- 2. Data Streaming Applications.
- 3. Data Intensive Real-time Applications (DIRT).
- 4. JSON APIs based Applications.
- 5. Single Page Applications.
- 6. It is not advisable to use Node.js for CPU intensive applications.

2.2. AngularJS

AngularJS is a very powerful JavaScript Framework. It is used in Single Page Application (SPA) projects. It extends HTML DOM with additional attributes and makes it more responsive to user actions. AngularJS is open source, completely free, and used by thousands of developers around the world. It is licensed under the Apache license version 2.0.

Installation command - \$ npm install -g @angular/cli

Why to Learn AngularJS?

• AngularJS is an open-source web application framework. It was originally developed in 2009 by Misko Hevery and Adam Abrons. It is now maintained by Google. Its latest version is 1.2.21.

- AngularJS is an efficient framework that can create Rich Internet Applications (RIA).
- AngularJS provides developers an options to write client side applications using JavaScript in a clean Model View Controller (MVC) way.
- Applications written in AngularJS are cross-browser compliant. AngularJS automatically handles JavaScript code suitable for each browser.
- AngularJS is open source, completely free, and used by thousands of developers around the world. It is licensed under the Apache license version 2.0.
- Overall, AngularJS is a framework to build large scale, high-performance, and easytomaintain web applications.

Applications of AngularJS:

The general features of AngularJS are as follows

- AngularJS is an efficient framework that can create Rich Internet Applications (RIA).
- AngularJS provides developers an options to write client side applications using JavaScript in a clean Model View Controller (MVC) way.
- Applications written in AngularJS are cross-browser compliant. AngularJS automatically handles JavaScript code suitable for each browser.
- AngularJS is open source, completely free, and used by thousands of developers around the world. It is licensed under the Apache license version 2.0.
- Overall, AngularJS is a framework to build large scale, high-performance, and easy to maintain web applications.

2.3. Express.js

Express is a minimal and flexible Node.js web application framework that provides a robust set of features to develop web and mobile applications. It facilitates the rapid development of Node based Web applications. Following are some of the core features of Express framework –

- Allows setting up middleware's to respond to HTTP Requests.
- Defines a routing table which is used to perform different actions based on HTTP Method and URL.
- Allows to dynamically rendering HTML Pages based on passing arguments to templates.

Installation command - \$ npm install express --save

The above command saves the installation locally in the node modules directory and creates a directory express inside node modules. You should install the following important modules along with express -

Body-parser – This is a Node.js middleware for handling JSON, Raw, Text and URL encoded form data.

Cookie-parser – Parse Cookie header and populate req.cookies with an object keyed by the cookie names.

Multer – This is a Node.js middleware for handling multipart/form-data.

2.4. MongoDB

MongoDB is an open-source document database and leading No SQL database. MongoDB is written in C++. This tutorial will give you great understanding on MongoDB concepts needed to create and deploy a highly scalable and performance-oriented database.

Audience:

This tutorial is designed for Software Professionals who are willing to learn MongoDB Database in simple and easy steps. It will throw light on MongoDB concepts and after completing this tutorial you will be at an intermediate level of expertise, from where you can take yourself at higher level of expertise.

Prerequisites:

Before proceeding with this tutorial, you should have a basic understanding of database, text editor and execution of programs, etc. Because we are going to develop high performance database, so it will be good if you have an understanding on the basic concepts of Database (RDBMS).

2.5. Software Requirements

At Developer End

• Front-end: HTML5, CSS, JavaScript

• Back-end: Node.js, AngularJS

• OS : Window 7 or above, Linux or any other.

• Database : Mongodb

• IDE : Visual Studio Code

At User End

• Any latest web enabled browser.

• Windows XP or above, Linux or any other mobile device.

2.6. Hardware Requirements

At Developer End

• Processor : Intel Core i3 (Similar or Above)

RAM : 4 GB or above.Storage : 240 GB or more.

At End User

• Processor : Intel Pentium (Similar or Above)

• RAM : 256 MB or more.

2.7. Full Stack Developer Responsibilities:

- Developing front end website architecture.
- Designing user interactions on web pages.
- Developing back end website applications.
- Creating servers and databases for functionality.
- Ensuring cross-platform optimization for mobile phones.
- Ensuring responsiveness of applications.
- Working alongside graphic designers for web design features.
- Seeing through a project from conception to finished product.
- Designing and developing APIs.
- Meeting both technical and consumer needs.
- Staying abreast of developments in web applications and programming languages.

2.8. Full Stack Developer Requirements:

- Degree in Computer Science.
- Strong organizational and project management skills.
- Proficiency with fundamental front end languages such as HTML, CSS and JavaScript.
- Familiarity with JavaScript frameworks such as Angular JS, React and Amber.
- Proficiency with server side languages such as Python, Ruby, Java, PHP and .Net.
- Familiarity with database technology such as MySQL, Oracle and MongoDB.
- Excellent verbal communication skills.
- Good problem solving skills.
- Attention to detail.

Project Design

3.1. Use Case Diagram

> Use Case Diagram for Admin

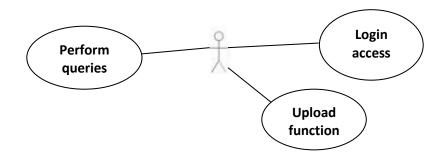


Fig 3.1 - For Admin Panel

Description:

- 1. The admin just need to have login access.
- 2. Upload functions (with textbox and button).
- 3. Upload news, along with an image. Update news, images, Delete news and images.
- 4. Upload photos for gallery by dates with a hyperlink to enlarge and Delete button.
- 5. Upload videos (with textbox and button) and if can download you see.
- 6. Delete members the news we will upload it, just give us the layout and functionalities.

Use Case Diagram for User

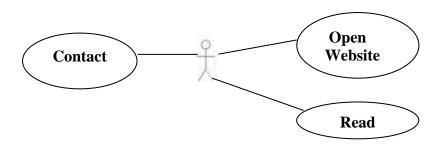


Fig 3.2 - For User Panel

Description:

1. Login as user and see the news.

3.2. Entity-Relationship Diagram

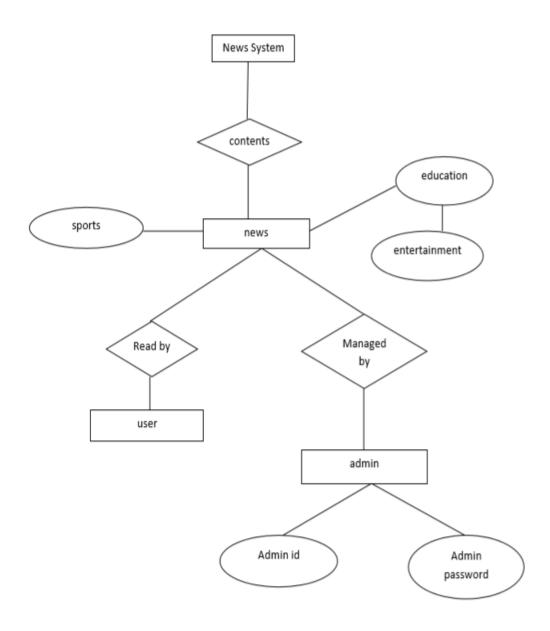


Fig 3.3 – E-R Diagram

3.3. Activity Flow Diagram

An activity diagram used to model a large activity's sequential work flow by focusing on action sequences and respective action conditions. An activity diagram is represented by shapes that are connected by arrows. Arrows run from activity start to complete and represent the sequential order of performance activity. In this rectangle represents performances action, and described by text inside each rectangle. In this circle represents an initial workflow state or an end state. In this diamond shape is used shape is used to represents a decision, which is key activity diagram concept.

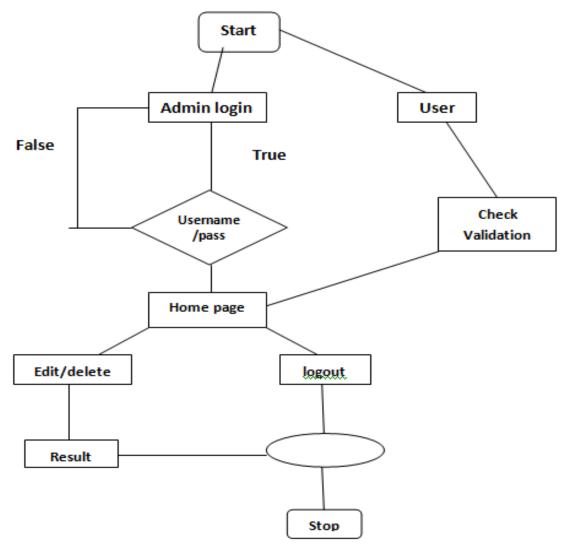


Fig 3.4 – Activity Diagram

3.4. DFD (Data Flow Diagram)

A DFD is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system without going into great detail, which can later be elaborated DFDs can also be used for the visualization of data processing (structured design).

A DFD shows what kind of information will be input to and output from the system, how the data will advance through the system, and where the data will be stored. It does not show information about the timing of process or information about whether processes will operate in sequence or in parallel unlike a flowchart which also shows this information.



Fig 3.5 – 0 Level Data Flow Diagram

This is a 0 Level Data Flow Diagram of the online news portal. In this DFD, user can see the news and website will send request to server and server gives respond of that request. In this diagram the portal accommodates three entities that are as follows:

- □ User
- ☐ News Website
- ☐ Server response

PROJECT PROFILE

4.1. Login Page

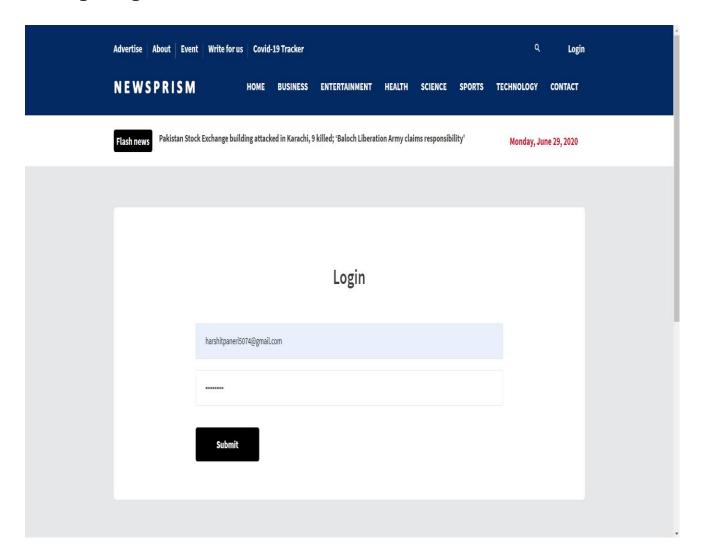


Fig 4.1 – Login Page

The login page allows a admin to gain access to an application by entering their username and password.

4.2. Index Page

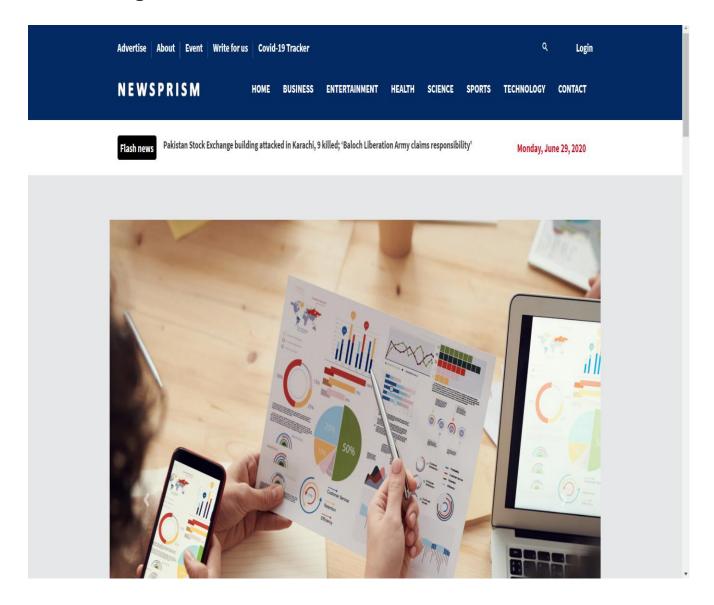


Fig 4.2 – Index Page

- The home page is the name of the main page of a website where visitors can find hyperlinks and functionality to find other pages.
- Visitor navigating to a website from a search engine will see.
- It may also serve as a landing page to attract visitors.

4.3. User Specification

Business News

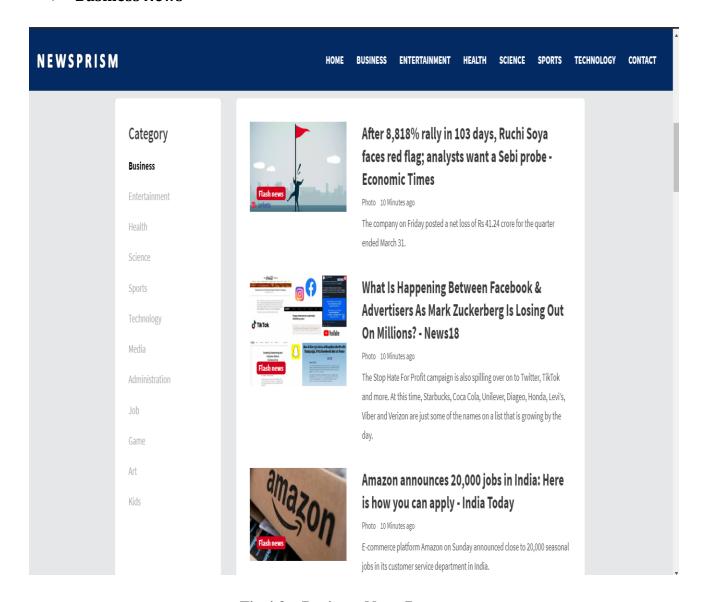


Fig 4.3 – Business News Page

Business journalism is the part of journalism that tracks, records, analyzes and interprets the **business**, economic and **financial** activities and changes that take place in societies. This area of journalism provides **news** and feature articles about people, places and issues related to the **business** sector.

Entertainment News

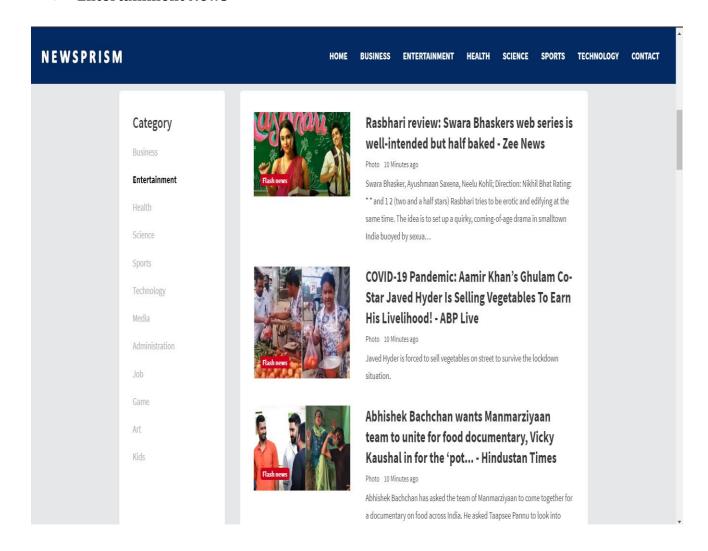


Fig 4.4 – Entertainment News Page

Entertainment News is a flagship television news Entertainment program formatting infortainment which contains interesting news from the world of entertainment at home and abroad based on facts and information that broadcasts on the Indonesian TV station NET. This program also discusses news from the world of music, film, fashion, art, biography and event organizers.

> Health News

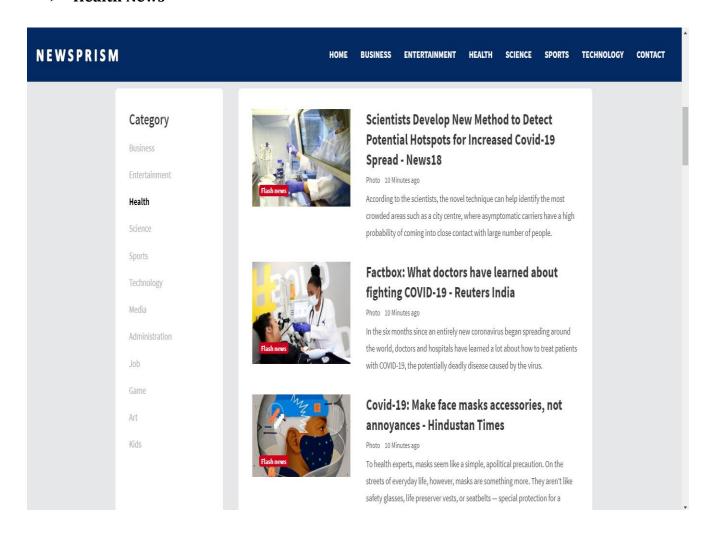


Fig 4.5 - Health News Page

The latest health and wellness news, including case studies, research breakthroughs, celebrity health updates, and internet trends. After all, staying in the know is part of a balanced lifestyle.

> Science News

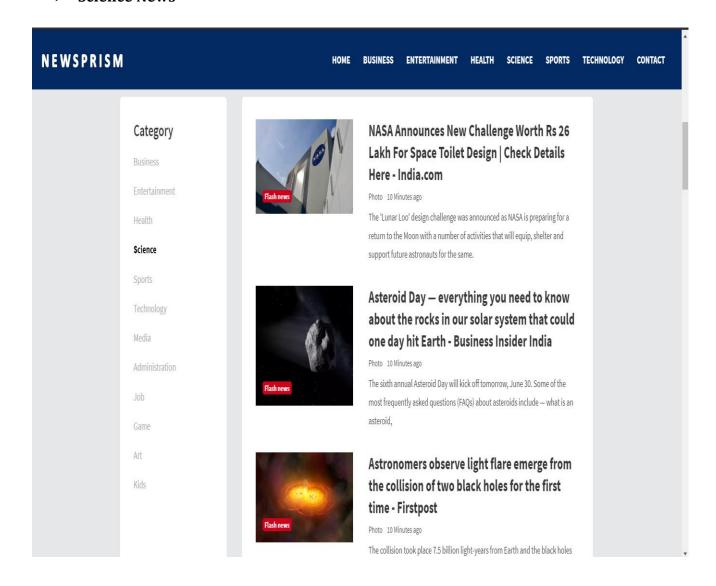


Fig 4.6 – Science News Page

Daily updates of the latest science news, new scientific research, technology breakthroughs, and how the science headlines affect you.

> Sports News

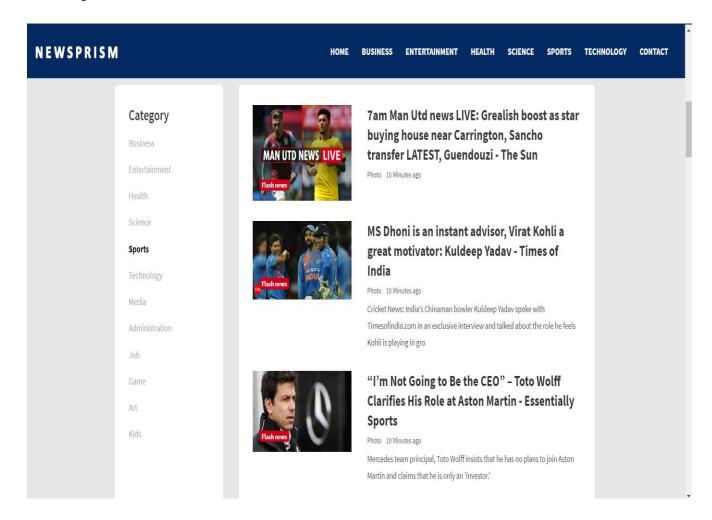


Fig 4.7 – Sports News Page

Sports journalism is a form of writing that reports on matters pertaining to sporting topics and competitions. Sports Journalism started in the early 1800s when it was targeted to the social elite and has transitioned into an integral part of the news business with newspapers having dedicated sports sections.

> Technology News

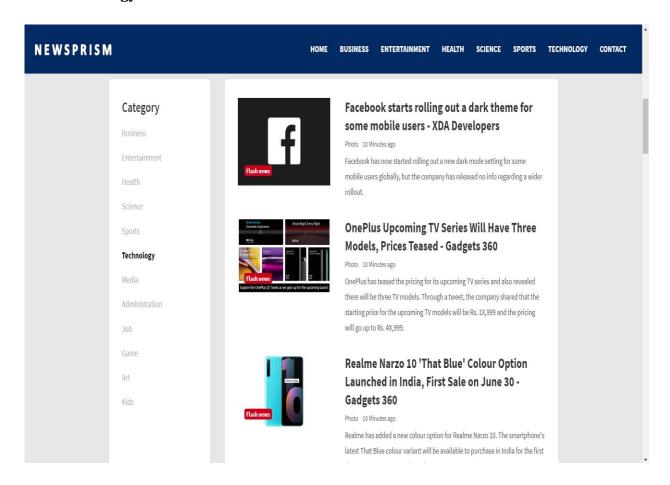


Fig 4.8 – Television News Page

The latest tech news about the world's best (and sometimes worst) hardware, apps, and much more. From top companies like Google and Apple to tiny startups vying for your attention, the latest in what matters in technology daily.

Contact Us

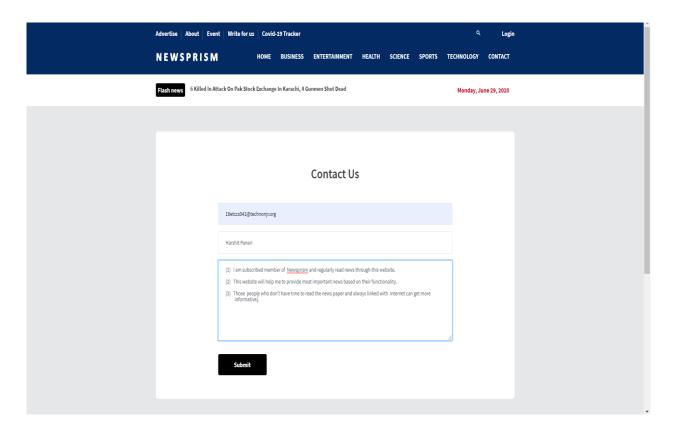


Fig 4.9 – Contact Us Page

It could be beneficial to let your visitor decide what's useful for them. It's also helping the visitor to contact the website owner.

Header



Fig 4.10 - Header

Header is the top section of the web page. Headers are often the first thing site visitors see so having the logo is important.

> Footer



Fig 4.11 - Footer

The footer appears at the bottom of site page. It usually contains small-print items like copyright Information and footer design is about choosing what to include, with the intention to helping Visitors and meeting business goals.

> About Us

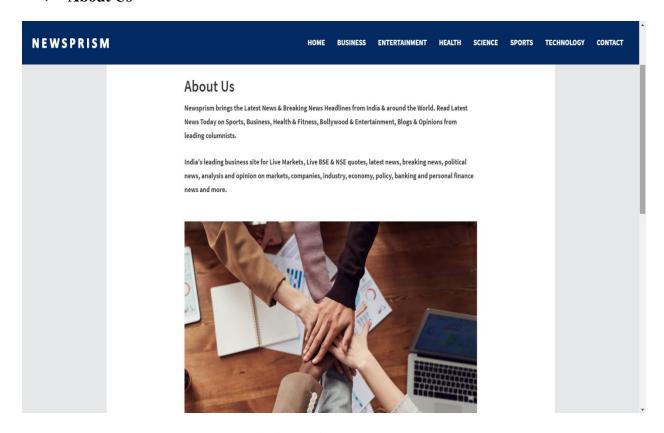


Fig 4.12 - About Us Page

CONCLUSION AND FUTURE SCOPE

5.1. Conclusion

- > To get information about current world ages anytime, anywhere, anyone can access by internet at low cost.
- ➤ Coverage of distribution and faster dissemination of information in a more timely manner.
- To provides a wonderful user interface that attracts more and more user.
- ➤ All new updated information that is more effective and useful for people.
- In our project work, an attempt has been made to develop a News or information-based website. We develop this project that helps the people and make them aware so that they can know any news. To establish this website, we use various methodologies. To develop this project, we have faced many problems but we hardly tried to develop this project. Our training faculty helps us by giving his valuable opinion, decision and time.

5.2. Future Scope

In this we can make many further advancements and improvements to make it better. The more we attractive the website the more it will become better. And we can also integrate any kind of news according to our need. We will like for support systems, news systems, software's, etc. In future we will do following work:

- We can add more security features in it.
- We can make any kind of user interface according to our need.
- We can add many kinds of APIs like Google, discovery APIs.
- ➤ We will develop this website for large volume.
- We update our database.
- ➤ We can make searching system more flexible.

REFERENCES

We are using various type of books and websites from which we get the Knowledge about MEAN Stack Which are following:-

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