**Anjuman-I-Islam’s**

**M. H. Saboo Siddik Polytechnic**

8, M. H. Saboo Siddik Polytechnic Road, Mumbai 400008



FINAL YEAR DIPLOMA IN COMPUTER ENGINEERING

(2021-2022)

PROJECT REPORT ON

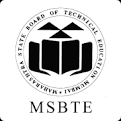
**MHSSP Events Hub Website**

BY

**19416 Ayesha Loladia**

UNDER THE GUIDANCE OF

**MS. ZAIBUNNISA MALIK**



Maharashtra State Board of Technical Education (MS-BTE)

Mumbai (Autonomous) (ISO 9001:2008) (ISO/IEC 27001:2005

Anjuman-I-Islam’s

**M.H.Saboo Siddik Polytechnic**

8, M.H.Saboo Siddik Polytechnic Road, Mumbai 400008

**Certificate**

This is to certify that Ms. **Ayesha Loladia**

from Computer Engineering Department of M. H. Saboo Siddik Polytechnic, Mumbai having Enrollment No. **1900020252** has completed Final Project Report having Title **MHSSP Events Hub** during the academic year 2021 – 2022 in a group consisting of 3 persons under the guidance of Faculty Guide Ms.Zaibunnisa Malik & Co Guide Ms.Munira Ansari.

**Place: Mumbai Sign of Guide: \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_ Sign of HOD: \_\_\_\_\_\_\_\_\_\_\_\_\_**

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**Project**

**Report**

**Acknowledgement**

It is our esteemed pleasure to present the project report on **“MHSSP Events Hub”**

We would firstly like to thank our Principal (I/c), Head of the Department & Guide Ms. Zaibunnisa Malik for encouraging and motivating us with her guidance and total support for our work. We shall also like to thank Ms. Munira Ansari for working as our sub guide and making our path to integrity much simpler.

We also thank all the teachers who constantly motivated us and provided us their precious knowledge about the procedures carried out for making a project along with technical knowledge they have availed.

We would also like to thank our principal Mr. A.K Qureshi for providing us this

Opportunity of integrating our own project and constantly supporting us throughout the process.

It would also be pleasure thanking all the staff, be it teaching or non-teaching

who always understood by us and never made any problem tread our way.

**Abstract**

The existing system uses WordPress Technology to showcase events and notices for M. H. Saboo Siddik Polytechnic, the process followed currently is indeed tedious and time-consuming, the administrator has to redesign the website every time a change is required. There is a major chance of the design getting ruined while applying the changes. Other than that, File Management is difficult and can worsen if not handled properly. Every WordPress Website has issues with response time, the user has to wait to perform actions. Lastly, performing analytical calculations, dashboard, and customize approach is not possible with WordPress. The Website cannot be scaled to a higher version using such technologies and lack the ability to handle huge traffic and can crash at peak time. So, to avoid such troublesome situations the current project is proposed.

The Event Management System has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some case, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the institute to carry out operations in a smooth and effective manner. The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly.

The current events website of MHSSP is static and uses WordPress which makes it difficult to create, manage and update digital content. Every time a new event is organized, we need to manually add the event on the website, which is a hectic and tedious task to perform. WordPress websites on the other hand are very slow in response time and cannot handle large audience. File management on such systems becomes very difficult. Additional, designing website on WordPress is also not easy as you need to maintain responsiveness every time you add or delete something.

Due to the above stated problems, it became very essential to re-develop this webpage using the latest technologies in the market and make the whole process easier and flexible so that anyone can easily interact with the system and can get the job done. Content Management System (CMS) are in great demand because they make creation and modification of digital content very easy. One can easily perform CRUD operations using CMS without touching the code behind it.

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**Chapter 1: Introduction and Background**

**Content:**

* 1. Introduction

1.2. Background

* 1. Motivation
  2. Problem Statement
  3. Objective and Scope
  4. Advantages
  5. Disadvantages
  6. Limitations
  7. Conclusion
  8. **Introduction**

The Event Management System has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some case, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the institute to carry out operations in a smooth and effective manner. The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly.

Event Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus, it will help organization in better utilization of resources. Every organization whether big or small, has challenges to overcome and managing the information of Activity, Event, Attendees, Payment, Conductors. Every Event Management System has different Event needs; therefore, we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your future goals.

Also, for those busy executive who are always on the go, our system come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

* 1. **Background**

The existing system uses WordPress Technology to showcase events and notices for M. H. Saboo Siddik Polytechnic, the process followed currently is indeed tedious and time-consuming, the administrator has to redesign the website every time a change is required. There is a major chance of the design getting ruined while applying the changes. Other than that, File Management is difficult and can worsen if not handled properly. Every WordPress Website has issues with response time, the user has to wait to perform actions. Lastly, performing analytical calculations, dashboard, and customize approach is not possible with WordPress. The Website cannot be scaled to a higher version using such technologies and lack the ability to handle huge traffic and can crash at peak time. So, to avoid such troublesome situations the current project is proposed

* 1. **Motivation**

We saw many other websites of other colleges dedicated to events. Those websites seemed to be much better than the website created by the students of our college. Being a computer department student, we decided we should re-develop this website for our college. Hence our group came up with an idea that we should develop a website as a replacement for the existing events website. We thought of considering the newest technology and came up with CMS (content management system). CMS is a trending technology. Learning and using this technology in our project will hugely benefit us.

* 1. **Problem Statement**

The current events website of MHSSP is static and uses WordPress which makes it difficult to create, manage and update digital content. Every time a new event is organized, we need to manually add the event on the website, which is a hectic and tedious task to perform. WordPress websites on the other hand are very slow in response time and cannot handle large audience. File management on such systems becomes very difficult. Additional, designing website on WordPress is also not easy as you need to maintain responsiveness every time you add or delete something.

Due to the above stated problems, it became very essential to re-develop this webpage using the latest technologies in the market and make the whole process easier and flexible so that anyone can easily interact with the system and can get the job done. Content Management System (CMS) are in great demand because they make creation and modification of digital content very easy. One can easily perform CRUD operations using CMS without touching the code behind it.

* 1. **Objective & Scope**
* **Objective**
* To study current events management system and learn from their flaws and bugs.
* To make the website responsive and dynamic using bootstrap, so that the website is accessible from any device with stable internet connection
* To allow content management by providing an admin panel, which allows the administrator to manage the website according to their needs.
* To classify events into categories (Upcoming, Ongoing and Archived) for better management of events
* To allow students to access events for their choice and participate in it.
* To provide an environment to promote events.
* To allow departments to showcase their events and get participants from different streams, departments and institutes.
* Administrator can easily perform CRUD operations without touching the code behind.
* The website makes it easier to categorize the events based on their type, organizing departments, date of the events etc.
* **Scope**

This website will be very useful for our college to inform students about various events such as expert lectures, workshops, competitions, webinars, vaccine and plantation drives that are held in our college. It will keep all the students updated about all the events and they won’t miss any events. We will build a content management system hence it will be easy for the admin to manage it as well. Only the admin will have access rights to the system to edit posts therefore it will be safe and secure to use. The future scope of our website would include expanding the website further and include more features in the website. We will host this website on the existing domain name of our college. The future students of MHSSP can improve our website in the future.

* 1. **Advantages**
* **User friendly features**: CMS is user-friendly because it enables any approved team member to upload text and images or edit files online - regardless of development experience. It is very user friendly, even people with little or no technical skills can easily create, update or modify content on the website or page. CMS also makes it easy to distribute content, download updates, deletions and alterations of web content, as well as make content searchable, retrievable, and reusable.
* **Accessible from anywhere**: A CMS allows website content to be accessible virtually from anywhere, using any computer device that’s connected to the Internet. This is a very convenient feature as the ability to work remotely and on-the-go is increasingly important nowadays.
* Administrator can easily perform CRUD operations without touching the code behind.
* The website makes it easier to categorize the events based on their type, organizing departments, date of the events etc.
* Students can easily find and participate in the events.
* The website has a responsive design so it is compatible with any size of device.
  1. **Disadvantages**
* The system needs to be monitored by a technical person to avoid troubling scenarios
* CMS based websites are slower in the process and requires good internet connections to interact with the database.
* CMS based systems require a highly configured hosting facility.
* The system gets heavier and heavier as the number of uploaded files increases.
* Optimization is difficult and tedious
* CMS sites cost a lot more to design than static sites because a designer has to install and configure the database, design the template, then customize it to include all the extensions
  1. **Limitations**
* CMS based websites are slower in the process and requires good internet connections to interact with the database.
* CMS sites cost a lot more to design than static sites because a designer has to install and configure the database, design the template, then customize it to include all the extensions
* The system gets heavier and heavier as the number of uploaded files increases.
  1. **Conclusion**

Therefore, we conclude that we have done a successful Introduction and Background which included different fields like motivation, problem statement, background, advantages, disadvantages, limitations, etc.

**Chapter 2: Literature Survey**

**Content:**

2.1. Introduction

2.2. Research Papers

2.3. References

2.4. Conclusion

**2.1. Introduction**

Several CMS based websites are being used by officials around the world to arrange various data in an easy way. Modern companies, institutions, organizations, individuals, etc. have websites in order to extend their reach to audience or customers. However, it is not sufficient anymore just to have an appearance on web and to be recognized through various web search engines. People are increasingly using smartphones and tablets for accessing the Internet, not just desktop personal computers and notebooks, therefore websites need to be optimized for all these devices in order to provide the best user experience. Responsive web design provides a website with a flexibility to adapt to any of these devices, i.e., their resolutions.

The paper presents statistics and predictions of market trends regarding the devices and user experiences in web browsing and m-commerce. Responsive web design is researched, along with its benefits and potential problems. A website designed with Responsive Web Development adapts the layout to the user by using fluid, proportion-based grids, flexible images, and CSS3 media queries an extension of the media rule. The layout changes based on the size and capabilities of the device. Responsive web design (RWD) is a web design approach basically aimed at crafting sites to provide an optimal viewing experience such as easy reading and navigation with a minimum of resizing, panning, and scrolling— across a wide range of devices from mobile phones to desktop computer monitors. It can be said it’s worth putting a little extra consideration into the people who are using different devices. In this paper we will also discuss about twitter bootstrap which is an important toolkit for responsive web development.

**2.2. Research Papers**

**Paper Title 1 :**

The Design and Research of Responsive Web Supporting Mobile Learning Devices

**Author :**

Wenhui Peng, Yaling Zhou

**Published in:**

International Symposium on Educational Technology (ISET)

**Abstract :** The popularity of smart phones and tablet devices, means that more and more users can surf the Internet through mobile devices. In this situation, it will become an important problem of how to make website compatible with various types of equipment as well as to ensure a good user experience.

**Paper Title 2 :**

Implementing responsive web design for enhanced web presence

**Author :**

S. Mohorovičić

**Published in:**

36th International Convention on Information and Communication

**Abstract :**

Modern companies, institutions, organizations, individuals, etc. have websites in order to extend their reach to audience or customers. Responsive web design provides a website with a flexibility to adapt to any of these devices, i.e., their resolutions. Responsive web design is researched, along with its benefits and potential problems.

**Paper Title 3 :**

Responsive Web Development

**Author :**

Girish Mehta, Kirti Sharma, Himanshu Saini

**Published in:**

IEEE

**Abstract :**

This paper is based on Responsive web development which is aimed to provide optimal viewing experience. A website designed with Responsive Web Development adapts the layout to the user by using fluid, proportion-based grids, flexible images, and CSS3 media queries an extension of the media rule. Responsive web design (RWD) is a web design approach basically aimed at crafting sites to provide an optimal viewing experience such as easy reading and navigation with a minimum of resizing, panning, and scrolling— across a wide range of devices from mobile phones to desktop computer monitors.

**Paper Title 4 :**

Developing dynamic web applications: “Exam scheduler”

**Author :**

S. Maržić, I. Jugo, M. Radovan

**Published in:**

Proceedings of the 34th International Convention MIPRO

**Abstract :**

The paper presents and analyzes the methodology of the development of dynamic web applications, illustrated by the example of the web application for exam scheduling and managing, which has been developed for the use at the University of Rijeka, Department of Informatics. The new application for the thorough evidence of exam terms has been created by using the script languages PHP and JavaScript, together with the relational database system MySQL and the language HTML, as the basic means for defining the structure of web pages.

**Paper Title 5 :**

Specification and implementation of dynamic Web site benchmarks

**Author :**

Amza, Chanda, Cox, Elnikety, Gil, Rajamani, Zwaenepoel, Cecchet, Marguerite

**Published in:**

IEEE International Workshop on Workload Characterization

**Abstract :**

The absence of benchmarks for Web sites with dynamic content has been a major impediment to research in this area. We describe three benchmarks for evaluating the performance of Web sites with dynamic content. The benchmarks model three common types of dynamic content Web sites with widely varying application characteristics: an online bookstore, an auction site, and a bulletin board. For the online bookstore, we use the TPCW specification. For the auction site and the bulletin board, we provide our own specification, modeled after ebay.com and slahdot.org, respectively. For each benchmark we describe the design of the database and the interactions provided by the Web server. We have implemented these three benchmarks with a variety of methods for building dynamic-content applications, including PHP, Java servlets and EJB (Enterprise Java Beans).

**Paper Title 6 :**

Responsive web design mode and application

**Author :**

Wei Jiang, Meng Zhang, Bin Zhou, Yujian Jiang, Yingwei Zhang

**Published in:**

IEEE Workshop on Advanced Research and Technology in Industry Applications (WARTIA)

**Abstract :**

Responsive web design has received a popular attention in recent years because of they can meet a variety of internet terminals resolution. This paper will discuss how to use Media Queries, Bootstrap responsive navigation, and layout of streaming technology to achieve responsive web design. And make a rational analysis about responsive web development at the present stage.

**Paper Title 7 :**

Website development strategy for e-Commerce success

**Author :**

Minwoo Lee, Hye Young Lee, Moon-Gil Yoon

**Published in:**

The 40th International Conference on Computers & Industrial Engineering

**Abstract :**

Nowadays a website for e-Commerce has given the traditional companies much more opportunities in contacting customers more easily, implementing business to the new market, e-Commerce, increasing the profit, and gaining competitiveness. This paper proposes a website development strategy for e-Commerce success by not only investigating Website quality factors, their relative importance in choosing preferred Website, but also finding which quality factors should be modified and enhanced for e-Commerce Success.

**Paper Title 8 :**

Wood and masonry on the Web: a civil engineering design course goes virtual

**Author :**

D. Larson

**Published in:**

28th Annual Frontiers in Education Conference

**Abstract :**

Summary form only given. This presentation documents the on-going effort to develop and deliver a Web-based, practiced-orientated, civil engineering design course. The course, titled "EGR 437-Wood and Masonry Design", focuses on the structural design and construction of low-rise buildings and uses a system-based approach to motivate learning and to emphasize component integration. This course is being offered for the first time, (Fall,1998), via the Web to residential Northern Aizona University (NAU) students

**Paper Title 9 :**

Web design — Past, present and future

**Author :**

Haidi Božiković, Maja Štula

**Published in:**

41st International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO)

**Abstract :**

Nowadays there is a wide prevalence of various devices that can be connected online for different kind of activities, and among others, for browsing web pages. Web design is constantly changing and adjusting due to the appearance of different sizes and types of devices. Web design from the 1990s is greatly different from current web pages.

**Paper Title 10 :**

Type-based Static and Dynamic Website Verification

**Author :**

Jorge Coelho, Mario Florido

**Published in:**

Second International Conference on Internet and Web Applications and Services

**Abstract :**

Maintaining large Web sites and verifying their semantic content is a difficult task. In this paper we propose a framework for syntactic validation, semantic verification and automatic correction of Web sites based on the logic programming language XCentric.

**Paper Title 11 :**

Design and Implementation of j2EE-Based Web Website Content Management System

**Author :**

Li Zhao,Si-Feng Du

**Published in:**

International Conference on E-Product E-Service and E-Entertainment

**Abstract :**

The website content management system mentioned in this paper is a foundational website application platform for website design and information distribution and is an auxiliary tool system for Website development. It enables the user to quickly develop, maintain and manage the high-performance dynamic website.

**Paper Title 12 :**

New technologies for web development

**Author :**

Grega Jakus

**Published in:**

Research Gate

**Abstract :**

The paper gives an overview of the new features of web technologies. The general idea of the new version of HTML (Hyper Text Markup Language), i.e. HTML5, and other tools presented in this paper is the formal specification and the establishment of uniform solutions for technologies and functionalities which have already been in use through various hacks and plug-ins proposed by web developers. The new version of HTML enforces strict separation of the page content from its style. The styling can only be done using CSS (Cascading Style Sheets) language. The new CSS version, i.e. CSS3, has a modular structure, in which different modules define different styling features.

**Paper Title 13 :**

Research on HTML5 in Web Development

**Author :**

Ch Rajesh, K S V Krishna Srikanth

**Published in:**

IJCSIT

**Abstract :**

HTML5 is everywhere these days. HTML5 is the new and elegant standard for HTML that provides web users and developers enhanced functionality. The older versions of HTML, HTML 4.01, which came in 1999, and the web development have changed notably since then. HTML 4, XHTML, CSS and the

HTML DOM Level 2 are now replaced with HTML5. It was brought to deliver rich content without the need for additional plug-ins and proprietary technologies. The new power of HTML5 supplies the user everything from animation to graphics, music to movies, and can also be used to build complicated web applications and also supports cross-platform.

**Paper Title 14 :**

Node.js Challenges in Implementation

**Author :**

Hezbullah Shah

**Published in:**

Research Gate

**Abstract :**

Node.js gave rise to the Full Stack Developers who are now able to manage server and client side by their own. Node.js is fast and reliable for heavy files and heavy network load applications due to its event driven, non-blocking, and asynchronous approaches, where developers can also maintain a complete projects in single pages (SPA) and can use for IOT.

**Paper Title 15:**

Assessing the security of Node.js platform

**Author :**

Andres Ojamaa; Karl Düüna

**Published in:**

IEEE

**Abstract :**

Node.js is a novel event-based network application platform which forces developers to use asynchronous programming interfaces for I/O operations. The native language for developing applications on this platform is JavaScript. Despite its young age the platform has attracted a significant community of developers and gained support from the industry. The Node.js community generally has a strong focus on the scalability of the platform.

**Paper Title 16 :**

Return of the JS: Towards a Node.js-Based Software Architecture for Combined CMS/CRM Applications

**Author :**

Fabian Kaimera, Philipp Brunea

**Published in:**

Science Direct

**Abstract :**

While the use of server-side JavaScript in combination with the Node.js framework for implementing web applications is getting more and more common in practice, its implications for the evolution of web application architectures have rarely been studied in the scientific literature. In particular, the combination of components and their interplay for building pure JavaScript business applications has only rarely been investigated so far.

**Paper Title 17 :**

Introduction to Node.js

**Author :**

Andrew Low, Joran Siu, Ivy Ho, Gary Liu

**Published in:**

Proceedings of 24th Annual International Conference on Computer Science and Software Engineering

**Abstract :**

Node.js is a server-side JavaScript platform that has seen explosive growth in recent years. In its 5 years of existence, Node.js has leaped to being the third most-starred repository on GitHub, and is now one of the most popular frameworks for developing cloud, mobile and Internet-of-Things applications.

**Paper Title 18 :**

Administration and academic staff performance management system using content management system (CMS) technologies

**Author :**

Moussa Mahamat Boukar; Isa Muslu

**Published in:**

IEEE

**Abstract :**

Content management systems (CMS) provide an optimal solution by organizing information and, mostly, creating and managing an enterprises knowledge. This paper aims to construct an interactive dynamic system based on CMS technologies, on which a range of problems concerning the administration and academic aspects of a university management system can be analyzed and certain policies for overcoming these problems can be tested and improved.

**Paper Title 19 :**

Successful measurement of Content Management System implementation

**Author :**

Yanti Tjong

**Published in:**

IEEE

**Abstract :**

It's a required for higher education institution to implement a system that supports learning and teaching processes. Using Content Management Systems (CMS) helped the institution to improve learning quality. aims to evaluate user satisfaction at Bina Nusantara University as case study. Bina Nusantara University, itself already implement CMS since 15 years ago which call with Binusmaya and along the year proved helps many Subject Matter Expert (SME) to create content material, on the other hand, A questionnaire created according to Delone & McLean Information System Impact Model and divided into 2 sections, which is closed question and open question.

**Paper Title 20 :**

Content management system for web portal

**Author :**

Maciej Nakwaski; Wojciech Zabierowski

**Published in:**

IEEE

**Abstract :**

One major advantage of a CMS is its collaborative nature. Multiple users can log on and contribute, schedule or manage content to be published. Because the interface is usually browser-based, a CMS can be accessed from anywhere by any number of users. When a company uses a CMS to publish its web pages, it reduces its reliance on front-end developers to make changes to the website, making it quicker and easier to publish new web pages.

**Paper Title 21 :**

Requirements and Approaches for a Content Management Service

**Author :**

Stephan Schneider

**Published in:**

IEEE

**Abstract :**

The contribution describes enhancements to a content management in order to enable it for ASP (application service provision) operation. The first section lists up the most important requirements that an ASP-based content management has to fulfill. The approaches described next are focused on the delivery and the storage of essences, because this is one of the most sensitive and important parts of a content management system.

**Paper Title 22 :**

Security analysis of unstructured data in NOSQL MongoDB database

**Author :**

Jitender Kumar; Varsha Garg

**Published in:**

IEEE

**Abstract :**

NoSQL databases systems are non-relational databases uniquely intended to give high accessibility, reliability, and scalability for enormous data. Additionally sharding is the main fundamental favorable circumstances of NoSQL database. Various companies are moving towards NoSQL databases. NoSQL databases can store unstructured data such as email, multimedia, documents, and social media with high performance. NoSQL document stored database, MongoDB has many security risks which can be overcome by a good secure cryptographic system.

**Paper Title 23 :**

MongoDB scheme analysis

**Author :**

Liberies Vokorokos; Matúš Uchnár; Anton Baláž

**Published in:**

IEEE

**Abstract :**

The aim of this work is to create a web administration interface for the MongoDB database to analyze the stored data. The application design was based on the needs of potential users and similar solutions that already exist.

**Paper Title 24 :**

The Query Translation from MySQL to MongoDB Taking into Account the Structure of the Database

**Author :**

Muon Ha; Yulia Shichkina

**Published in:**

IEEE

**Abstract :**

This article discusses an approach to translate queries from MySQL to MongoDB taking into account the structure of the database which consists of four phases. In the first phase, the process of parsing the incoming queries MySQL are using building syntax grammar. In the second phase, a dictionary of query parts is created from the result of the first phase based on the aggregation structure MongoDB.

**Paper Title 25 :**

Hybrid Database System of MySQL and MongoDB in Web Application Development

**Author :**

Gregorius Ongo; Gede Putra Kusuma

**Published in:**

IEEE

**Abstract :**

The increasing amount of data that need to be processed in a company are affecting the performances of the database system. Relational Database Management System (RDBMS) is a commonly used database system, but also known to having a decreased performance when handling high amount of data. N oSQL is an alternative storage option that is different than RDBMS and known for faster performance when handling high amount of data. In this contribution, we compare the performances between RDBMS MySQL and a hybrid model of MySQL and NoSQL MongoDB when being used on a web application.

**Paper Title 26 :**

An Empirical Comparison of MongoDB and Hive

**Author :**

Chaudhary, A. S., Singh, K., & Kaur, P

**Published in:**

4th International Conference on Computing Communication and Automation (ICCCA),

**Abstract :**

Most of the web and mobile applications today involve storage, processing and analysis of large datasets. The existing relational database systems are inadequate in handling the basic challenges introduced by these data-centric applications. This, consequently, has led to a new class of scalable and non-relational data management systems, referred to as NoSQL databases. NoSQL systems are characterized by their ability to scale horizontally and provide high availability. Apart from NoSQL, Hadoop framework and its constituent technologies are also synonymous with solutions for large data sets.

**Paper Title 27 :**

Using MongoDB for social networking website deciphering the pros and cons

**Author :**

Sumitkumar Kanoje; Varsha Powar; Debajyoti Mukhopadhyay

**Published in:**

IEEE

**Abstract :**

Social media is a biggest successful buzzword used in the recent time. Its success opened various opportunities for the developers. Developing any application requires storage of large data into databases. Many databases are available for the developers, Choosing the right one make development easier. MongoDB is a cross platform document oriented, schema-less database eschewed the traditional table based relational database structure in favor of JSON like documents. This article discusses various pros and cons encountered with the use of the MongoDB so that developers would be helped while choosing it wisely.

**Paper Title 28 :**

A generic tool to process mongodb or Cassandra dataset using Hadoop streaming

**Author :**

R. Chandangole Gopal; A. Tidke Bharat

**Published in:**

IEEE

**Abstract :**

Now a days Bulk of data generating on the system. This data is very important for user and today's user accessing, searching and sorting the data from database is very difficult. To overcome this problem, data is distributed in different node using Hadoop technology. A system is proposed in which the collected data is to be distributed using map reduce technique for sorting the data is very easily on Hadoop environment. To present the approaches solving Problem of NoSQL data to stores with MapReduce process to under in non-Java application.

**Paper Title 29 :**

Comparison of Relational Database with Document-Oriented Database (MongoDB) for Big Data Applications

**Author :**

Satyadhyan Chickerur; Anoop Goudar; Ankita Kinnerkar

**Published in:**

IEEE

**Abstract :**

Database can accommodate a very large number of users on an on-demand basis. The main limitations with conventional relational database management systems (RDBMS) are that they are hard to scale with Data warehousing, Grid, Web 2.0 and Cloud applications, have non-linear query execution time, have unstable query plans and have static schema. Even though RDBMS's have provided database users with the best mix of simplicity, robustness, flexibility, performance, scalability and compatibility but they are not able to satisfy the present day users and applications for the reasons mentioned above.

**Paper Title 30 :**

Assessment of MongoDB's spatial retrieval performance

**Author :**

Miaoran Duan; Gang Chen

**Published in:**

IEEE

**Abstract :**

Based on four sample point sets of 10 thousand (100\*100), 250 thousand (500\*500), 1 million (1000\*1000) and 4 million (2000\*2000), we test the space retrieval performance of MongoDB and ArcGIS in different sample quantity condition. The test results show that, after enabling spatial index, spatial retrieve performance of MongoDB is much better than ArcGIS, and the performance gap increases with the increase of sample point set; both of two products have shown strong regularity and stability in all sample point sets under test environment. Finally, experimental results explain the characteristic and application directions of two product.

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**2.4. Conclusion**

Therefore, we conclude that we have done a successful Literature Survey and Review which included different research papers of different types like IEEE, conference, and others. Through these these literature survey, the overall quality of a system can be easily modified or improved and occurrences of errors can ultimately be reduced.

**Chapter 3**: **Proposed Methodology**

**Content:**

3.1. System Design

3.1.1. Introduction

3.1.2. Block Diagram

3.1.3. System architecture diagram

3.1.4. Data Flow Diagram

3.1.5. Software Design Approach

3.2. Time Line Chart

3.3. Gantt Chart

3.4. Conclusion

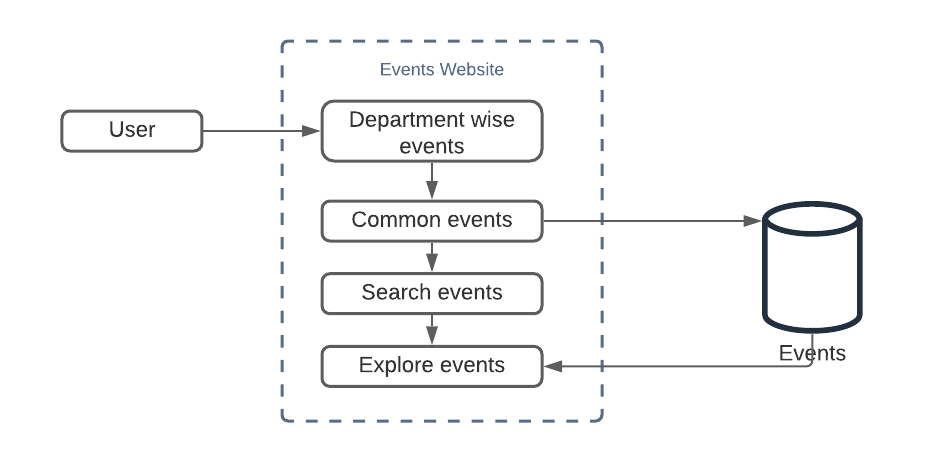
**3.1. System Design**

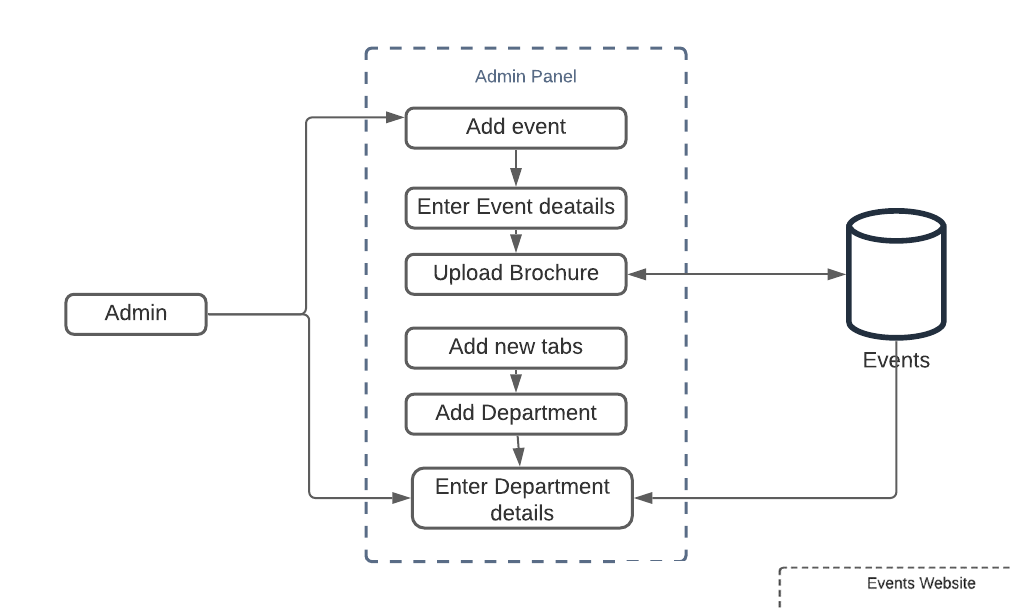
**3.1.1. Introduction**

Systems design is the process of defining elements of a system like modules, architecture, components and their interfaces and data for a system based on the specified requirements. It is the process of defining, developing and designing systems which satisfies the specific needs and requirements of a business or organization. Systems design is the process of defining the architecture, modules, interfaces, and data for a system to satisfy specified requirements. Systems design could be seen as the application of systems theory to product development. There is some overlap with the disciplines of systems analysis, systems architecture and systems engineering.

**3.1.2. Block Diagram**

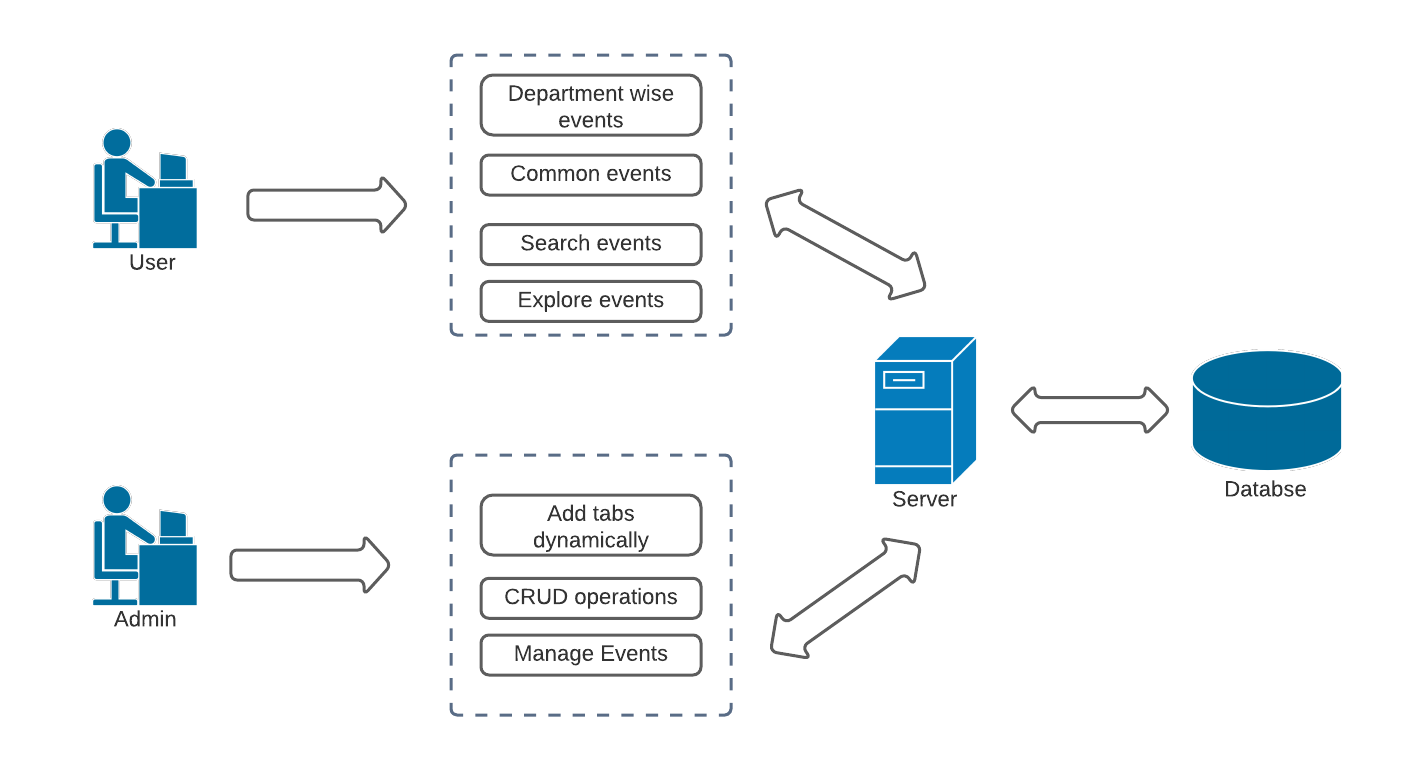
A block diagram is a specialized, high-level flowchart used in engineering. It is used to design new systems or to describe and improve existing ones. Its structure provides a high-level overview of major system components, key process participants, and important working relationships. A block diagram is a diagram of a system in which the principal parts or functions are represented by blocks connected by lines that show the relationships of the blocks. They are heavily used in engineering in hardware design, electronic design, software design, and process flow diagrams. Block diagrams are typically used for higher level, less detailed descriptions that are intended to clarify overall concepts without concern for the details of implementation. Contrast this with the schematic diagrams and layout diagrams used in electrical engineering, which show the implementation details of electrical components and physical construction.





**3.1.3. System architecture diagram**

A system architecture or systems architecture is the conceptual model that defines the structure, behavior, and more views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviors of the system. A system architecture can consist of system components and the sub-systems developed, that will work together to implement the overall system. There have been efforts to formalize languages to describe system architecture, collectively these are called architecture description languages (ADLs). The purpose of system architecture activities is to define a comprehensive solution based on principles, concepts, and properties logically related and consistent with each other. The solution architecture has features, properties, and characteristics satisfying, as far as possible, the problem or opportunity expressed by a set of system requirements (traceable to mission/business and stakeholder requirements) and life cycle concepts (e.g., operational, support) and are implementable through technologies (e.g., mechanics, electronics, hydraulics, software, services, procedures, human activity). System Architecture is abstract, conceptualization-oriented, global, and focused to achieve the mission and life cycle concepts of the system. It also focuses on high‐level structure in systems and system elements. It addresses the architectural principles, concepts, properties, and characteristics of the system-of-interest. It may also be applied to more than one system, in some cases forming the common structure, pattern, and set of requirements for classes or families of similar or related systems.

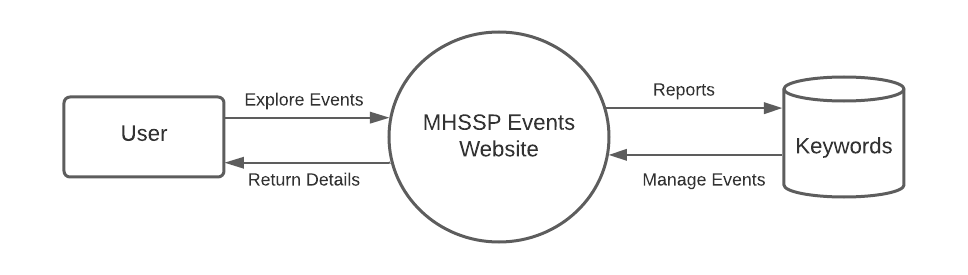
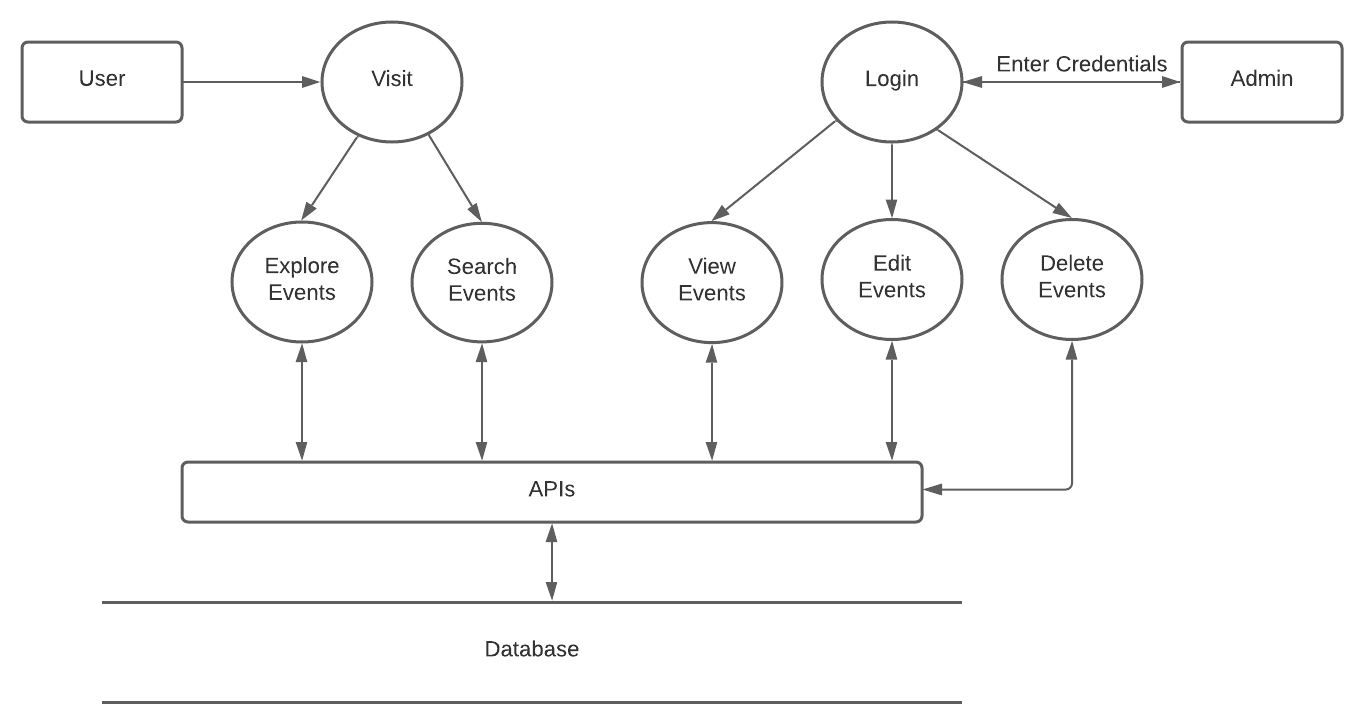


**3.1.4. Data Flow Diagram**

A data-flow diagram (DFD) is a way of representing a flow of a data of a process or a system (usually an information system). The DFD also provides information about the outputs and inputs of each entity and the process itself. A data-flow diagram has no control flow, there are no decision rules and no loops. Specific operations based on the data can be represented by a flowchart. There are several notations for displaying data-flow diagrams.

The notation presented above was described in 1979 by Tom DeMarco as part of Structured Analysis. For each data flow, at least one of the endpoints (source and / or destination) must exist in a process. The refined representation of a process can be done in another data-flow diagram, which subdivides this process into sub-processes. The data-flow diagram is part of the structured-analysis modelling tools. When using UML, the activity diagram typically takes over the role of the data-flow diagram.

A special form of data-flow plan is a site-oriented data-flow plan. A data flow diagram (DFD) maps out the flow of information for any process or system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination. Data flowcharts can range from simple, even hand-drawn process overviews, to in-depth, multi-level DFDs that dig progressively deeper into how the data is handled. They can be used to analyses an existing system or model a new one. Like all the best diagrams and charts, a DFD can often visually “say” things that would be hard to explain in words, and they work for both technical and nontechnical audiences, from developer to CEO. That’s why DFDs remain so popular after all these years. While they work well for data flow software and systems, they are less applicable nowadays to visualizing interactive, real-time or database-oriented software or systems.

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**3.1.5. Software Design Approach**

We have used RAD Model Approach as it is the suited model for our project. As the RAD (Rapid Application Development) model is based on prototyping and iterative development with no specific planning involved. The process of writing the software itself involves the planning required for developing the product. Rapid Application Development focuses on gathering customer requirements through workshops or focus groups, early testing of the prototypes by the customer using iterative concept, reuse of the existing prototypes (components), continuous integration and rapid delivery.

**What is RAD?**

Rapid application development is a software development methodology that uses minimal planning in favor of rapid prototyping. A prototype is a working model that is functionally equivalent to a component of the product.

In the RAD model, the functional modules are developed in parallel as prototypes and are integrated to make the complete product for faster product delivery. Since there is no detailed preplanning, it makes it easier to incorporate the changes within the development process. RAD projects follow iterative and incremental model and have small teams comprising of developers, domain experts, customer representatives and other IT resources working progressively on their component or prototype.

The most important aspect for this model to be successful is to make sure that the prototypes developed are reusable.

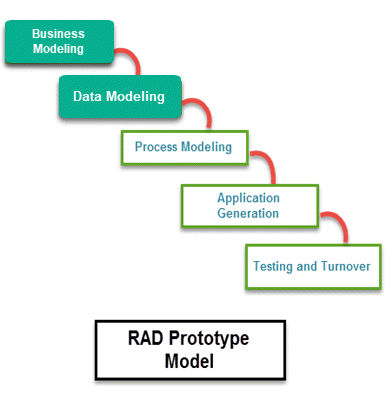


Fig. RAD Model

Different phases of RAD model include

**• Business Modeling:**

On basis of the flow of information and distribution between various business channels, the product is designed

**• Data Modeling:**

The information collected from business modeling is refined into a set of data objects that are significant for the business

**• Process Modeling:**

The data object that is declared in the data modeling phase is transformed to achieve the information flow necessary to implement a business function

**• Application Generation:**

Automated tools are used for the construction of the software, to convert process and data models into prototypes

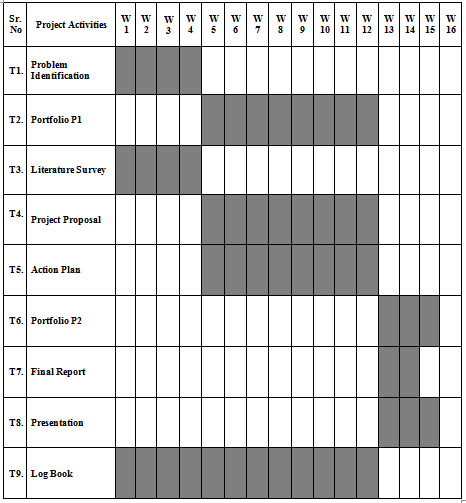
**• Testing and Turnover:**

As prototypes are individually tested during every iteration, the overall testing time is reduced in RAD.

**3.2. Time Line Chart**



**3.3. Gantt Chart**



**3.4. Conclusion**

Therefore, we conclude that we have done a successful System Design which included different diagrams such as Block Diagram, System Architecture Diagram, Data Flow Diagram, Table Structure (WBS), State Transition Diagram, E-R Diagram, etc. Through these various tasks, the overall quality of a system can be easily modified or improved and occurrences of errors can ultimately be reduced.

**Project**

**Proposal**

**MHSSP Events Hub**

**Rationale**

Our Website MHSSP Events Hub is a collection of Web Pages, images, videos and other digital assists that is hosted on one or several web servers, usually accessible via the internet, cell phone, or a LAN. The pages of website can usually be accessed from a common root URL called the home page and usually reside on the same physical server. The URLs of the pages organized them into a hierarchy, although the hyperlinks between them controls how the reader perceives the overall structure and how the traffic flows between the different parts of the site.

Our Website MHSSP Events Hub requires attractive design and proper arrangement of links and images which enables a browser to easily interpret and access the property of the site. Hence it provides the browser with adequate information and functionality about the organization community, network etc.

The Website is developed for M. H. Saboo Siddik Polytechnic is an effort to make it as attractive and dynamic as possible. This working of the project includes several links on first page and several information about the site like about us, staff, completed events, ongoing events, upcoming events, gallery, etc on home page.

The proposed website an effective replacement of the current website with improvement in overall site appearance. This will give a better outlook of the company to the site visitor. It contains all the information in the structured manner, by that the visitor can access the site easily.

There is also an admin login the website so that the admin can easily add the necessary data to the website without coding but by just using the interface and data that was added by the admin will be efficiently seen on the main website. This makes the work easier and it’s not necessary for the admin to have the web developing knowledge and also its saves time by just choosing the image from the computer or adding the text required.

**Introduction**

The main aim behind this web application is that this web application will provide us a detailed glance regarding the various events that would be held at Anjuman – I – Islam, M. H. Saboo Siddik Polytechnic.

It would be a responsive designed website. it is garaphical user interface design approach used to create content that adjust smoothly to various screen size.

It would also be a Content Management System(cms) based Web application in which the admin can easily create, edit and publish content. CMS offers some of the Flexibility, scalability and good Performance.

The Event Management System has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and, in some case, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the institute to carry out operations in a smooth and effective manner. The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly.

Event Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus, it will help organization in better utilization of resources. Every organization whether big or small, has challenges to overcome and managing the information of Activity, Event, Attendees, Payment, Conductors. Every Event Management System has different Event needs; therefore, we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your future goals.

Also, for those busy executive who are always on the go, our system come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

* **Purpose**

We saw many other websites of other colleges dedicated to events. Those websites seemed to be much better than the website of our college. We didn’t want our college to be lacking in terms of technology. Being a computer department student, we decided we should do something to improve the reputation of our college. Hence our group came up with an idea that we should develop a website as a replacement for the existing events website. We thought of considering the newest technology and came up with CMS (content management system). CMS is a very new and trending topic nowadays. Learning and using this technology in our project will hugely benefit us.

* **Scope**

This website will be very useful for our college to inform students about various events such as expert lectures, workshops, competitions, webinars, vaccine and plantation drives that are held in our college. It will keep all the students updated about all the events and they won’t miss any events. We will build a content management system hence it will be easy for the admin to manage it as well. Only the admin will have access rights to the system to edit posts therefore it will be safe and secure to use. The future scope of our website would include expanding the website further and include more features in the website. We will host this website on the existing domain name of our college. The future students of MHSSP can improve our website in the future.

**Literature Survey**

Modern companies, institutions, organizations, individuals, etc. have websites in order to extend their reach to audience or customers. However, it is not sufficient anymore just to have an appearance on web and to be recognized through various web search engines. People are increasingly using smartphones and tablets for accessing the Internet, not just desktop personal computers and notebooks, therefore websites need to be optimized for all these devices in order to provide the best user experience. Responsive web design provides a website with a flexibility to adapt to any of these devices, i.e., their resolutions. The paper presents statistics and predictions of market trends regarding the devices and user experiences in web browsing and m-commerce. Responsive web design is researched, along with its benefits and potential problems. A website designed with Responsive Web Development adapts the layout to the user by using fluid, proportion-based grids, flexible images, and CSS3 media queries an extension of the media rule. The layout changes based on the size and capabilities of the device. Responsive web design (RWD) is a web design approach basically aimed at crafting sites to provide an optimal viewing experience such as easy reading and navigation with a minimum of resizing, panning, and scrolling— across a wide range of devices from mobile phones to desktop computer monitors. It can be said it’s worth putting a little extra consideration into the people who are using different devices. In this paper we will also discuss about twitter bootstrap which is an important toolkit for responsive web development.

The project presents and analyzes the methodology of the development of dynamic web applications, illustrated by the example of the web application for exam scheduling and managing, which has been developed for the use at the University of Rijeka, Department of Informatics. The main drawback of the previous application regarded the need for "manual" search for free exam terms, because it did not contain the possibility of automatic insight into the taken (already inserted) exam terms. The new application for the thorough evidence of exam terms has been created by using the script languages PHP and JavaScript, together with the relational database system MySQL and the language HTML, as the basic means for defining the structure of web pages. In the first part of the project, we describe the methodology of the development of web applications, while in the rest of the paper we illustrate the use of this methodology on the example of the development of the dynamic web application “Exam scheduler”.

**Problem Definition**

The current events website of MHSSP is static and uses WordPress which makes it difficult to create, manage and update digital content. Every time a new event is organized, we need to manually add the event on the website, which is a hectic and tedious task to perform. WordPress websites on the other hand are very slow in response time and cannot handle large audience. File management on such systems becomes very difficult. Additional, designing website on WordPress is also not easy as you need to maintain responsiveness every time you add or delete something.

Due to the above stated problems, it became very essential to re-develop this webpage using the latest technologies in the market and make the whole process easier and flexible so that anyone can easily interact with the system and can get the job done. Content Management System (CMS) are in great demand because they make creation and modification of digital content very easy. One can easily perform CRUD operations using CMS without touching the code behind it.

**Proposed Methodology**

The proposed website an effective replacement of the current website with improvement in overall site appearance. This will give a better outlook of the college to the site visitor. It contains all the information in the structured manner, by that the visitor can access the site easily. There is also an admin login in the website so that the admin can easily add the necessary data to the website without coding but by just using the interface and data that was added by the admin will be efficiently seen on the main website.

This makes the work easier and it’s not necessary for the admin to have the web developing knowledge and also its saves time by just choosing the image from the computer or adding the text required. It was observed by the technical staff that there is a requirement of better website which should be dynamic in nature because if we want to put any updates in the website it was so time consuming as they first have to approach the developer and then he’ll process the data and then update the data. To upload the data, one should have the technical knowledge (like coding, scripting). As there was always a need of a person with technical knowledge and also this whole process is time consuming so to overcome this problem the company decided to get a dynamic website which can overcome the above drawbacks/problems. So, with this intention we found that the dynamic website is more efficient and easier to be used by any user (who has the access to do so). Developing this website can save the time of the company as they do not need to request the developer to update information.

* **Aim**

The main aim behind this web application is that this web application will provide us a detailed glance regarding the various events that would be held at Anjuman – I – Islam, M. H. Saboo Siddik Polytechnic. It would be a responsive designed website. it is graphical user interface design approach used to create content that adjust smoothly to various screen size. It would also be a Content Management System (CMS) based Web application in which the admin can easily create, edit and publish content. CMS offers some of the Flexibility, scalability and good Performance. It will use languages such as JavaScript, NodeJS, bootstrap, CSS, HTML. The database used will be MongoDB.

The website will contain 2 panels:

* The admin panel: the admin of the website would easily able to create edit and publish event on the website.
* User panel: In this panel the user would get an overview of the upcoming events. This panel would be used by both teachers and students.
* **Objective**
* To study current events management system and learn from their flaws and bugs.
* To make the website responsive and dynamic using bootstrap, so that the website is accessible from any device with stable internet connection
* To allow content management by providing an admin panel, which allows the administrator to manage the website according to their needs.
* To classify events into categories (Upcoming, Ongoing and Archived) for better management of events
* To allow students to access events for their choice and participate in it.
* To provide an environment to promote events.
* To allow departments to showcase their events and get participants from different streams, departments and institutes.
* Administrator can easily perform CRUD operations without touching the code behind.
* The website makes it easier to categorize the events based on their type, organizing departments, date of the events etc.

**Resources**

* **Hardware**
* Personal Computer with basic configuration
* **Software**
* Windows 10 OS
* Visual Studio Code
* NodeJS
* MongoDB Atlas
* Postman
* eJS

**Industrial Survey & Literature Review**

**MHSSP Events Hub**

**Abstract**

In essence, a literature review identifies, evaluates and synthesizes the relevant literature within a particular field of research. It illuminates how knowledge has evolved within the field, highlighting what has already been done, what is generally accepted, what is emerging and what is the current state of thinking on the topic. In addition, within research-based texts such as a Doctoral thesis, a literature review identifies a research gap (i.e., unexplored or under-researched areas) and articulates how a particular research project addresses this gap.

**Literature Review**

| **Sr. No.** | **Title** | **Author Name** | **Year** | **Published At** | **Findings** | **GAP** | **Future Direction** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | The Design and Research of Responsive Web Supporting Mobile Learning Devices | Wenhui Peng, Yaling Zhou | 2015 | International Symposium on Educational Technology (ISET) | The popularity of smart phones and tablet devices, means that more and more users can surf the Internet through mobile devices. In this situation, it will become an important problem of how to make website compatible with various types of equipment as well as to ensure a good user experience. | Due to the expansion of the mobile internet, the popularity of mobile intelligent terminals, and the rich of mobile learning resources, mobile learning becomes more and more popular among the users. | This article discusses the features and problems of traditional web learning resources, introduces key technologies in the process of responsive web design with supporting mobile learning resources, analyzes some relevant examples, and concludes with the idea that the responsive web design will play an important role in the future of web design. |
| 2 | Implementing responsive web design for enhanced web presence | S. Mohorovičić | 2013 | 36th International Convention on Information and Communication | Modern companies, institutions, organizations, individuals, etc. have websites in order to extend their reach to audience or customers. Responsive web design provides a website with a flexibility to adapt to any of these devices, i.e., their resolutions. Responsive web design is researched, along with its benefits and potential problems. | However, it is not sufficient anymore just to have an appearance on web and to be recognized through various web search engines. People are increasingly using smartphones and tablets for accessing the Internet. | The paper presents statistics and predictions of market trends regarding the devices and user experiences in web browsing and m-commerce. |
| 3 | Responsive Web Development | Girish Mehta, Kirti Sharma, Himanshu Saini | 2014 | IEEE | This paper is based on Responsive web development which is aimed to provide optimal viewing experience. A website designed with Responsive Web Development adapts the layout to the user by using fluid, proportion-based grids, flexible images, and CSS3 media queries an extension of the media rule. Responsive web design (RWD) is a web design approach basically aimed at crafting sites to provide an optimal viewing experience such as easy reading and navigation with a minimum of resizing, panning, and scrolling— across a wide range of devices from mobile phones to desktop computer monitors. | It can be said it’s worth putting a little extra consideration into the people who are using different devices. | In this paper we will also discuss about twitter bootstrap which is an important toolkit for responsive web development. Keywords- Responsive, Development, layout, extension, navigation, bootstrap. |
| 4 | Developing dynamic web applications: “Exam scheduler” | S. Maržić, I. Jugo, M. Radovan | 2011 | Proceedings of the 34th International Convention MIPRO | The paper presents and analyzes the methodology of the development of dynamic web applications, illustrated by the example of the web application for exam scheduling and managing, which has been developed for the use at the University of Rijeka, Department of Informatics. The new application for the thorough evidence of exam terms has been created by using the script languages PHP and JavaScript, together with the relational database system MySQL and the language HTML, as the basic means for defining the structure of web pages. | The main drawback of the previous application regarded the need for "manual" search for free exam terms, because it did not contain the possibility of automatic insight into the taken (already inserted) exam terms. | In the first part of the paper, we describe the methodology of the development of web applications, while in the rest of the paper we illustrate the use of this methodology on the example of the development of the dynamic web application “Exam scheduler”. |
| 5 | Specification and implementation of dynamic Web site benchmarks | Amza, Chanda, Cox, Elnikety, Gil, Rajamani, Zwaenepoel, Cecchet, Marguerite | 2002 | IEEE International Workshop on Workload Characterization | The absence of benchmarks for Web sites with dynamic content has been a major impediment to research in this area. We describe three benchmarks for evaluating the performance of Web sites with dynamic content. The benchmarks model three common types of dynamic content Web sites with widely varying application characteristics: an online bookstore, an auction site, and a bulletin board. For the online bookstore, we use the TPCW specification. For the auction site and the bulletin board, we provide our own specification, modeled after ebay.com and slahdot.org, respectively. For each benchmark we describe the design of the database and the interactions provided by the Web server. We have implemented these three benchmarks with a variety of methods for building dynamic-content applications, including PHP, Java servlets and EJB (Enterprise Java Beans). | Our implementations are available freely from our Web site for other researchers to use. These benchmarks can be used for research in dynamic Web and application server design. In this paper, we provide one example of such possible use, namely discovering the bottlenecks for applications in a particular server configuration. | Other possible uses include studies of clustering and caching for dynamic content, comparison of different application implementation methods, and studying the effect of different workload characteristics on the performance of servers. With these benchmarks we hope to provide a common reference point for studies in these areas. |
| 6 | Responsive web design mode and application | Wei Jiang, Meng Zhang, Bin Zhou, Yujian Jiang, Yingwei Zhang | 2014 | IEEE Workshop on Advanced Research and Technology in Industry Applications (WARTIA) | Responsive web design has received a popular attention in recent years because of they can meet a variety of internet terminals resolution. This paper will discuss how to use Media Queries, Bootstrap responsive navigation, and layout of streaming technology to achieve responsive web design. And make a rational analysis about responsive web development at the present stage. | Of course, we cannot agree that responsive web is the best solution to all the problems of design and content services. As same as web design in the past, a project’s specific circumstances (such as budget, target users, and site uses) determine its way of implementation. | So many code pages cause files increased which affect loading speed obviously. In order to fit different devices, responsive design requires a lot of specialized CSS and JavaScript codes, which affects the page loading speed |
| 7 | Website development strategy for e-Commerce success | Minwoo Lee, Hye Young Lee, Moon-Gil Yoon | 2014 | The 40th International Conference on Computers & Industrial Engineering | Nowadays a website for e-Commerce has given the traditional companies much more opportunities in contacting customers more easily, implementing business to the new market, e-Commerce, increasing the profit, and gaining competitiveness. This paper proposes a website development strategy for e-Commerce success by not only investigating Website quality factors, their relative importance in choosing preferred Website, but also finding which quality factors should be modified and enhanced for e-Commerce Success. | Even though lots of studies have given efforts to examine Website quality factors affecting e-Commerce success and measuring it, there is a lack of scarcity of models for suggesting Website development strategy for e-Commerce Success. | This study provides useful insights to contribute the decision making of e-Commerce companies to making strategic decision and allocating their limited resources in order to develop more preferred websites and improve their financial performance. Also, this paper presents a methodological contribution by demonstrating the use of data envelopment analysis (DEA), a linear programming methodology to measure the efficiency of multiple decision-making units, to IS research. |
| 8 | Wood and masonry on the Web: a civil engineering design course goes virtual | D. Larson | 1998 | 28th Annual Frontiers in Education Conference. | Summary form only given. This presentation documents the on-going effort to develop and deliver a Web-based, practiced-orientated, civil engineering design course. The course, titled "EGR 437-Wood and Masonry Design", focuses on the structural design and construction of low-rise buildings and uses a system-based approach to motivate learning and to emphasize component integration. This course is being offered for the first time, (Fall,1998), via the Web to residential Northern Aizona University (NAU) students | These students use the deep Web site as a course center that includes directions (e.g., homework, project, and reading assignments), daily lecture notes, pictures, links to on-line reference materials, and communications. | Future offerings of EGR 437 will include distance students taking the class, more or less, on the same schedule as the residential students. |
| 9 | Web design — Past, present and future | Haidi Božiković, Maja Štula | 2018 | 41st International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO) | Nowadays there is a wide prevalence of various devices that can be connected online for different kind of activities, and among others, for browsing web pages. Web design is constantly changing and adjusting due to the appearance of different sizes and types of devices. Web design from the 1990s is greatly different from current web pages. | The main goal of the design, is not the design itself, but to enable web content transfer on more readable and comprehensible way, no matter which device is used to present web content, desktop or hybrid computer, various mobile or wearable device. | This paper shows development of web design from its beginning to nowadays modern design, and what we can expect in future. |
| 10 | Type-based Static and Dynamic Website Verification | Jorge Coelho, Mario Florido | 2010 | Second International Conference on Internet and Web Applications and Services | Maintaining large Web sites and verifying their semantic content is a difficult task. In this paper we propose a framework for syntactic validation, semantic verification and automatic correction of Web sites based on the logic programming language XCentric. | Errors within the set of web constraints imposed by the system administrator are detected by type checking at compile time complemented with further type checking at run time and consistency analysis to detect constraints whose action may violate other constraint. | Here we purpose a new approach conciliating the highly declarative model of XCentric with compile and run time verification techniques, mainly based on type checking to automatically repair and audit Web sites. The result is an easy-to-follow model to improve and audit Website content. |
| 11 | Design and Implementation of j2EE-Based Web Website Content Management System | Li Zhao,Si-Feng Du | 2010 | International Conference on E-Product E-Service and E-Entertainment | The website content management system mentioned in this paper is a foundational website application platform for website design and information distribution and is an auxiliary tool system for Website development. It enables the user to quickly develop, maintain and manage the high-performance dynamic website. | The paper proposes the key method in which the system information distribution module is constructed in the webpage element and template manner to fully reduce the complexity of the system design. | The system guarantees the excellent cross-platform capability by using pure Java. The system can run on Windows and Linux and can migrate to the Unix large-scale machine. |
| 12 | New technologies for web development | Grega Jakus | 2010 | Research Gate | The paper gives an overview of the new features of web technologies. The general idea of the new version of HTML (Hyper Text Markup Language), i.e. HTML5, and other tools presented in this paper is the formal specification and the establishment of uniform solutions for technologies and functionalities which have already been in use through various hacks and plug-ins proposed by web developers. The new version of HTML enforces strict separation of the page content from its style. The styling can only be done using CSS (Cascading Style Sheets) language. The new CSS version, i.e. CSS3, has a modular structure, in which different modules define different styling features. | Many of these functionalities will now be implemented in browsers. The applications can access these functionalities through newly defined application programming interfaces. The latter include support for multimedia, dynamic graphic rendering, geolocation, multithreading, local data storage etc. HTML5 also introduces semantic markup, which can be used for marking the document structure as well as its elements and data. | The development cycles of the individual modules are independent as well as their support and implementation in various browsers. |
| 13 | Research on HTML5 in Web Development | Ch Rajesh, K S V Krishna Srikanth | 2014 | IJCSIT | HTML5 is everywhere these days. HTML5 is the new and elegant standard for HTML that provides web users and developers enhanced functionality. The older versions of HTML, HTML 4.01, which came in 1999, and the web development have changed notably since then. HTML 4, XHTML, CSS and the  HTML DOM Level 2 are now replaced with HTML5. It was brought to deliver rich content without the need for additional plug-ins and proprietary technologies. The new power of HTML5 supplies the user everything from animation to graphics, music to movies, and can also be used to build complicated web applications and also supports cross-platform. | HTML5 standard initiates the development of real-time collaborations in web browsers, which leads to less work for web developers. | The potential of HTML5 will soften the line between desktop and online applications. The problem HTML5 may suffer in the coming days is that an opportunity will be available for the malware writers which may make today's common hacks. |
| 14 | Node.js Challenges in Implementation | Hezbullah Shah | 2017 | Research Gate | Node.js gave rise to the Full Stack Developers who are now able to manage server and client side by their own. Node.js is fast and reliable for heavy files and heavy network load applications due to its event driven, non-blocking, and asynchronous approaches, where developers can also maintain a complete projects in single pages (SPA) and can use for IOT. |  | The result of study concludes from a survey and from literature review the implementation areas and challenges of the Node.js. Lastly will provide suggestion on how to improve to overcome the challenges. |
| 15 | Assessing the security of Node.js platform | Andres Ojamaa; Karl Düüna | 2012 | IEEE | Node.js is a novel event-based network application platform which forces developers to use asynchronous programming interfaces for I/O operations. The native language for developing applications on this platform is JavaScript. Despite its young age the platform has attracted a significant community of developers and gained support from the industry. The Node.js community generally has a strong focus on the scalability of the platform. | However, little research has been done on how the platform's design decisions affect the security of its applications. This paper outlines several possible security pitfalls to be aware of when using Node.js platform and server side JavaScript. | We also describe two discovered vulnerabilities and give recommendations for developing and configuring secure and resilient web applications on the Node.js platform. |
| 16 | Return of the JS: Towards a Node.js-Based Software Architecture for Combined CMS/CRM Applications | Fabian Kaimera, Philipp Brunea | 2018 | Science Direct | While the use of server-side JavaScript in combination with the Node.js framework for implementing web applications is getting more and more common in practice, its implications for the evolution of web application architectures have rarely been studied in the scientific literature. In particular, the combination of components and their interplay for building pure JavaScript business applications has only rarely been investigated so far. | Therefore, in this paper a software architecture for a real-world online service network application with a combined CMS/CRM functionality is presented. It is evaluated by a prototypical implementation of relevant core functionalities. Results indicate the feasibility and potential of the approach | Therefore, in this paper a software architecture for a real-world online service network application with a combined CMS/CRM functionality is presented. It is evaluated by a prototypical implementation of relevant core functionalities. Results indicate the feasibility and potential of the approach |
| 17 | Introduction to Node.js | Andrew Low, Joran Siu, Ivy Ho, Gary Liu | 2014 | Proceedings of 24th Annual International Conference on Computer Science and Software Engineering | Node.js is a server-side JavaScript platform that has seen explosive growth in recent years. In its 5 years of existence, Node.js has leaped to being the third most-starred repository on GitHub, and is now one of the most popular frameworks for developing cloud, mobile and Internet-of-Things applications. | The impact of a sluggish and unresponsive application can bring a business down to bits and pieces. Node.js, however, has been a knight in shining armor, saving web and mobile apps with its powerful and flexible personality. | Future appears to be brilliant for Node JS in the front-end world as it seems like no front-end improvement is possible without Node. js at least for the time being. Different Areas: Node JS web development is not utilized in different territories like embedded, Artificial Intelligence (AI) and Machine Learning (ML) |
| 18 | Administration and academic staff performance management system using content management system (CMS) technologies | Moussa Mahamat Boukar; Isa Muslu | 2013 | IEEE | Content management systems (CMS) provide an optimal solution by organizing information and, mostly, creating and managing an enterprises knowledge. This paper aims to construct an interactive dynamic system based on CMS technologies, on which a range of problems concerning the administration and academic aspects of a university management system can be analyzed and certain policies for overcoming these problems can be tested and improved. | The need to adopt a CMS is, firstly, to find an answer to the challenge of managing, modifying and updating a big volume of information. The need to use the same content on different media with different characteristics requires suitable systems of collection and management. | This pilot was developed to explore the versatility of content management system (CMS) and to use the technology of CMS as precursor to handle content of a full-blown automation of administration and academic performance management system. |
| 19 | Successful measurement of Content Management System implementation | Yanti Tjong | 2016 | IEEE | It's a required for higher education institution to implement a system that supports learning and teaching processes. Using Content Management Systems (CMS) helped the institution to improve learning quality. aims to evaluate user satisfaction at Bina Nusantara University as case study. Bina Nusantara University, itself already implement CMS since 15 years ago which call with Binusmaya and along the year proved helps many Subject Matter Expert (SME) to create content material, on the other hand, A questionnaire created according to Delone & McLean Information System Impact Model and divided into 2 sections, which is closed question and open question. | The course number are increase and complexity of content making difficult to monitor and some important feature is not available. This study focuses on critical success factor from user perception. | Questionnaires answered by respondents who are 80% have experience using Binusmaya system more than 1 year and as a result, only 47% user satisfied using Binusmaya system and some recommendation about what feature need to be added. |
| 20 | Content management system for web portal | Maciej Nakwaski; Wojciech Zabierowski | 2010 | IEEE | One major advantage of a CMS is its collaborative nature. Multiple users can log on and contribute, schedule or manage content to be published. Because the interface is usually browser-based, a CMS can be accessed from anywhere by any number of users. When a company uses a CMS to publish its web pages, it reduces its reliance on front-end developers to make changes to the website, making it quicker and easier to publish new web pages. | If you have infinite resources to spend, there are some very complex content management systems with features designed to make content creators’ and editors’ lives easier. With a limited budget, however, your choices will be more limited. | Before choosing a content management system, it is a good idea to start with thinking about how your website and content will be consumed. You will need to begin by making a list of the business problems you are trying to solve as well as any specific requirements you may have. This will help you choose the right content management system – the one that supports your business requirements – rather than the most popular or well-liked. |
| 21 | Requirements and Approaches for a Content Management Service | Stephan Schneider | 2008 | IEEE | The contribution describes enhancements to a content management in order to enable it for ASP (application service provision) operation. The first section lists up the most important requirements that an ASP-based content management has to fulfill. The approaches described next are focused on the delivery and the storage of essences, because this is one of the most sensitive and important parts of a content management system. | File replication has proven to work so far. However problems arise to keep database entries synchronized to the file replication if the systems run for a long time. Here periodical auditing processes are needed to cope with these problems. | The essence delivery functionality of the system has been enhanced in respect to high availability, automatic fail-over, load balancing and localized delivery. For each of these terms a solution has been developed and tested. |
| 22 | Security analysis of unstructured data in NOSQL MongoDB database | Jitender Kumar; Varsha Garg | 2017 | IEEE | NoSQL databases systems are non-relational databases uniquely intended to give high accessibility, reliability, and scalability for enormous data. Additionally sharding is the main fundamental favorable circumstances of NoSQL database. Various companies are moving towards NoSQL databases. NoSQL databases can store unstructured data such as email, multimedia, documents, and social media with high performance. NoSQL document stored database, MongoDB has many security risks which can be overcome by a good secure cryptographic system. | There arises a problem that the storage size taken by the encrypted data in MongoDB database is more as compared to the original data. To solve this problem, we used a zlib compression technique to reduce the storage size taken by the encrypted data and provide comparative results. | In this paper, we will use symmetric cryptographic techniques for providing the security (confidentiality) of unstructured data in NoSQL document stored MongoDB. |
| 23 | MongoDB scheme analysis | Liberies Vokorokos; Matúš Uchnár; Anton Baláž | 2017 | IEEE | The aim of this work is to create a web administration interface for the MongoDB database to analyze the stored data. The application design was based on the needs of potential users and similar solutions that already exist. | The created tool consists of a console application that performs the necessary analysis and a web application that visualizes the results. | Console application can also be used separately and can be integrated into other tools. The created application is faster than existing solutions, has more features and has been tested by automated testing and by real users. |
| 24 | The Query Translation from MySQL to MongoDB Taking into Account the Structure of the Database | Muon Ha; Yulia Shichkina | 2021 | IEEE | This article discusses an approach to translate queries from MySQL to MongoDB taking into account the structure of the database which consists of four phases. In the first phase, the process of parsing the incoming queries MySQL are using building syntax grammar. In the second phase, a dictionary of query parts is created from the result of the first phase based on the aggregation structure MongoDB. | In the next step, the structure of the database MongoDB is defined by converting collection data to structure tree and dictionary of query parts is updated for matching the structure of target database. | In the last phase, the query of the database MongoDB is synthesized from building dictionary. In the end, this article shows the result of testing of the proposed approach with the different queries. |
| 25 | Hybrid Database System of MySQL and MongoDB in Web Application Development | Gregorius Ongo; Gede Putra Kusuma | 2018 | IEEE | The increasing amount of data that need to be processed in a company are affecting the performances of the database system. Relational Database Management System (RDBMS) is a commonly used database system, but also known to having a decreased performance when handling high amount of data. N oSQL is an alternative storage option that is different than RDBMS and known for faster performance when handling high amount of data. In this contribution, we compare the performances between RDBMS MySQL and a hybrid model of MySQL and NoSQL MongoDB when being used on a web application. | The hybrid model database MySQL and MongoDB uses less disk space than MySQL alone, but uses more RAM. We also observed that there is not much difference in CPU usage for both database models. | Based on our evaluations, the hybrid database of MySQL and MongoDB achieves higher read and write performances than the MySQL alone. Meanwhile MySQL can handle more sensitive data and maintaining data consistency. |
| 26 | An Empirical Comparison of MongoDB and Hive |  |  |  | Most of the web and mobile applications today involve storage, processing and analysis of large datasets. The existing relational database systems are inadequate in handling the basic challenges introduced by these data-centric applications. This, consequently, has led to a new class of scalable and non-relational data management systems, referred to as NoSQL databases. NoSQL systems are characterized by their ability to scale horizontally and provide high availability. Apart from NoSQL, Hadoop framework and its constituent technologies are also synonymous with solutions for large data sets. | This paper investigates the querying performance of a widely used NoSQL document store, MongoDB and compares its performance with respect to the Hadoop analytical language, Hive over a single node. | The experimental results show that MongoDB yields a better performance than Hive for the considered dataset over a single node. |
| 27 | Using MongoDB for social networking website deciphering the pros and cons | Sumitkumar Kanoje; Varsha Powar; Debajyoti Mukhopadhyay | 2015 | IEEE | Social media is a biggest successful buzzword used in the recent time. Its success opened various opportunities for the developers. Developing any application requires storage of large data into databases. Many databases are available for the developers, Choosing the right one make development easier. MongoDB is a cross platform document oriented, schema-less database eschewed the traditional table based relational database structure in favor of JSON like documents. This article discusses various pros and cons encountered with the use of the MongoDB so that developers would be helped while choosing it wisely. | Although we considered MongoDB as suitable for social networking website, there is another side of the coin that should be considered while selecting MongoDB for any social networking project. Many developers have realized this and shifted from using MongoDB to other databases within one year of their project startup. So going to the final decision regarding database selection without considering these cons would lead to risks. | It has been experienced by many  developers that every nonstandard technology choice reduces ability to iterate quickly. Looking at the application point of view Facebook is used by a billion peoples over the world and even Facebook doesn’t use one technology, so right now MongoDB might not be having that potential to compete with relational databases but has a great future ahead. |
| 28 | A generic tool to process mongodb or Cassandra dataset using Hadoop streaming | R. Chandangole Gopal; A. Tidke Bharat | 2016 | IEEE | Now a days Bulk of data generating on the system. This data is very important for user and today's user accessing, searching and sorting the data from database is very difficult. To overcome this problem, data is distributed in different node using Hadoop technology. A system is proposed in which the collected data is to be distributed using map reduce technique for sorting the data is very easily on Hadoop environment. To present the approaches solving Problem of NoSQL data to stores with MapReduce process to under in non-Java application. | In this case used Cassandra and mongodb tools to storing large amount of data on Hadoop Framework. NoSQL data is stores in unstructured data format which is a key focus area for “Big Data” research. The quantity and quality of unstructured data growing high. The Hadoop Framework used to large amount of data on a different nodes in a cluster data. NoSQL databases using different structure and unstructured data of high scalability for getting high performance of system. | A Cassandra is to provide the platform for the fast and efficient data queries. In this paper presents the tools of the Cassandra and the mongodb using NoSQL database for connecting different node with the Hadoop MapReduce engine. |
| 29 | Comparison of Relational Database with Document-Oriented Database (MongoDB) for Big Data Applications | Satyadhyan Chickerur; Anoop Goudar; Ankita Kinnerkar | 2015 | IEEE | Database can accommodate a very large number of users on an on-demand basis. The main limitations with conventional relational database management systems (RDBMS) are that they are hard to scale with Data warehousing, Grid, Web 2.0 and Cloud applications, have non-linear query execution time, have unstable query plans and have static schema. Even though RDBMS's have provided database users with the best mix of simplicity, robustness, flexibility, performance, scalability and compatibility but they are not able to satisfy the present day users and applications for the reasons mentioned above. | The aim of this paper is to illustrate how a problem being solved using MySQL will perform when MongoDB is used on a Big data dataset. The results are encouraging and clearly showcase the comparisons made. Queries are executed on a big data airlines database using both MongoDB and MySQL. Select, update, delete and insert queries are executed and performance is evaluated. | The next generation NonSQL (NoSQL) databases are mostly non-relational, distributed and horizontally scalable and are able to satisfy most of the needs of the present day applications. The main characteristics of these databases are schema-free, no join, non-relational, easy replication support, simple API and eventually consistent. |
| 30 | Assessment of MongoDB's spatial retrieval performance | Miaoran Duan; Gang Chen | 2015 | IEEE | Based on four sample point sets of 10 thousand (100\*100), 250 thousand (500\*500), 1 million (1000\*1000) and 4 million (2000\*2000), we test the space retrieval performance of MongoDB and ArcGIS in different sample quantity condition. The test results show that, after enabling spatial index, spatial retrieve performance of MongoDB is much better than ArcGIS, and the performance gap increases with the increase of sample point set; both of two products have shown strong regularity and stability in all sample point sets under test environment. Finally, experimental results explain the characteristic and application directions of two products. | Based on a quantitative experiment, this paper makes a  comparison with the retrieval performance of ArcGIS, the  product ofESRI and MongoDB which natively supports spatial  location index, to explain the performance characteristics of both in different orders of magnitude of data, and analyze their causes  as well as application directions. | What's selected for the test in this paper is the retrieval of  simple point features, which is the intersection of the functions  of both. ArcGIS is inferior to MongoDB in performance, but it  still has a very stable performance and a powerful function. The  tool set offered by ArcObjects can integrate many functions  together, to provide a perfect service chain. The performance  comparison between both products is also a microcosm of  relational database and NoSQL. The relational database  represented by ArcGIS is perfectly functional and powerful,  while the NoSQL database represented by MongoDB shows a  significant performance superiority |

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**Problem**

**Identification**

**Events Hub.**

**Problem Statement**

The current events website of MHSSP is static and uses WordPress which makes it difficult to create, manage and update digital content. Every time a new event is organized, we need to manually add the event on the website, which is a hectic and tedious task to perform. WordPress websites on the other hand are very slow in response time and cannot handle large audience. File management on such systems becomes very difficult. Additional, designing website on WordPress is also not easy as you need to maintain responsiveness every time you add or delete something.

Due to the above stated problems, it became very essential to re-develop this webpage using the latest technologies in the market and make the whole process easier and flexible so that anyone can easily interact with the system and can get the job done. Content Management System (CMS) are in great demand because they make creation and modification of digital content very easy. One can easily perform CRUD operations using CMS without touching the code behind it.

**Purpose**

We saw many other websites of other colleges dedicated to events. Those websites seemed to be much better than the website created by the students of our college. Being a computer department student, we decided we should re-develop this website for our college. Hence our group came up with an idea that we should develop a website as a replacement for the existing events website. We thought of considering the newest technology and came up with CMS (content management system). CMS is a trending technology. Learning and using this technology in our project will hugely benefit us.

**Scope**

This website will be very useful for our college to inform students about various events such as expert lectures, workshops, competitions, webinars, vaccine and plantation drives that are held in our college. It will keep all the students updated about all the events and they won’t miss any events. We will build a content management system hence it will be easy for the admin to manage it as well. Only the admin will have access rights to the system to edit posts therefore it will be safe and secure to use. The future scope of our website would include expanding the website further and include more features in the website. We will host this website on the existing domain name of our college. The future students of MHSSP can improve our website in the future.

**Features**

The main aim behind this web application is that this web application will provide us a detailed glance regarding the various events that would be held at Anjuman – I – Islam, M. H. Saboo Siddik Polytechnic.

It would be a responsive designed website. it is garaphical user interface design approach used to create content that adjust smoothly to various screen size.

It would also be a Content Management System(cms) based Web application in which the admin can easily create, edit and publish content. CMS offers some of the Flexibility, scalability and good Performance.

It will use languages such as javascript, nodeJS, bootstrap, CSS, HTML. The database used will be MongoDB.

The website will contain 2 panels:

* The admin panel : the admin of the website would easily able to create edit and publish event on the website.
* User panel : In this panel the user would get an overview of the upcoming events. This panel would be used by both teachers and students.

**Advantages**

* **User friendly features**: CMS is user-friendly because it enables any approved team member to upload text and images or edit files online - regardless of development experience. It is very user friendly, even people with little or no technical skills can easily create, update or modify content on the website or page. CMS also makes it easy to distribute content, download updates, deletions and alterations of web content, as well as make content searchable, retrievable, and reusable.
* **Accessible from anywhere**: A CMS allows website content to be accessible virtually from anywhere, using any computer device that’s connected to the Internet. This is a very convenient feature as the ability to work remotely and on-the-go is increasingly important nowadays.
* Administrator can easily perform CRUD operations without touching the code behind.
* The website makes it easier to categorize the events based on their type, organizing departments, date of the events etc.
* Students can easily find and participate in the events.
* The website has a responsive design so it is compatible with any size of device.

**Disadvantages**

* CMS based websites are slower in the process and requires good internet connections to interact with the database.
* CMS based systems require a highly configured hosting facility.
* The system gets heavier and heavier as the number of uploaded files increases.
* Optimization is difficult and tedious
* CMS sites cost a lot more to design than static sites because a designer has to install and configure the database, design the template, then customize it to include all the extensions

**Project**

**Portfolio**

**Portfolio for Self Directed Learning for Major Project Work**

**Name of Student: Ayesha Loladia**

**Semester: 5th**

**Programme/Branch: Computer Engineering**

**Roll No: 19416**

**Title of the Project: MHSSP Events Hub**

**Name and Designation of Project Guide: Ms. Zaibunnisa Malik.**

**Name of Institute: M.H Saboo Siddik Polytechnic**

**(Answer to the following questions to be included in ‘Portfolio’ as reflection related to formation of group and finalization of project topic).**

1. How many alternatives we thought before finalizing the project topic?

Ans: Before finalizing the project topic, following are the alternatives we thought:

* The real time face mask detection.
* Traffic prediction for intelligent transport system.
* Anemia estimation for patients using machine learning
* Android smart city traveler
* Android blood bank.
* Machine Learning based Rainfall Prediction
* Dental carries detection system

1. Did we consider all the technical fields related to branch of our diploma programme?

Ans: While finalizing our topic we searched project on different domains covering all technical fields. We covered Internet of Things, Artificial Intelligence, Machine Learning, Data Science, Data Mining, Cloud Computing and many more.

1. Why we found present project topic as most appropriate?

Ans: Our present topic contributes to our college. It helps our college to arrange events. Hence we thought this topic would be the most appropriate.

1. Whether all the group members agreed on the present project topic? If not? What were the reasons of their disagreement?

Ans: At first there were some disagreements because all of us don’t have same fields of interest. Some of use liked AI while other liked IOT. But after we had a conversation this issue was resolved and we all agreed on our current topic i.e CMS based website for event management.

1. Whether the procedure followed in assessing alternatives and finalizing the project topic was correct? If not then discuss the reasons.

Ans: The procedure followed was correct as we considered everyone’s opinion and then decided on the project topic. Also, we were guided by our teachers.

1. What were the limitations in other alternatives of project topic?

Ans: There were various limitations in other project topics for example some of the topics were already done by our seniors and we wanted to do something new. Some of the topics were very common.

1. How we formed our team?

Ans: Group Members :

1. Ayesha Loladia
2. Aditya Choudhary
3. Arisha Rakhangi

All three of us were good at studying and were intelligent. All three of us had made group projects earlier also and were good at coordinating which each other. So we thought that we should team up and work on this project as a group.

1. Whether we faced any problem in forming the team? If yes, then what was the problem and how was it resolved?

Ans: We didn’t face any problems while forming the team as all of us were good friends before too we easily formed the team just by discussing it among ourselves.

1. Am I the leader of our project team? If yes, then why was I chosen? If not, why I could not become the project team leader?

Ans: Yes, I am the leader of the project team. I got elected, because I can understand the concept much better and find the right way to do it. I can manage the entire process of development and make my team members to give their best. Team spirit is the key point behind a successful project and I will give my best to keep my team members motivated.

1. Do I feel that present team leader is the best choice available in the group? If yes, then why? If not then why?

Ans: We contested an election where each group member voted. While electing the leader each one of us, explained why we are electing the candidate. The result made me as the group leader so I feel that present team leader is the best choice available in the project group.

1. According to me who should be the leader of the team and why?

Ans: According to me the current team leader is the best choice. Under the leadership of our leader all our deadlines have been completed before time also our team is working very smoothly.

1. Can we achieve the targets set in the project work within the time and cost limits?

Ans: I think we can achieve the targets set in the project work as all my team members are good at completing deadlines. We will try our best.

1. What are my good/bad sharable experiences while working with my team which provoked me to think? What I learned from these experiences?

Ans: Sometimes we have disagreements among out team which I think leads to few problems. But we learned from these experiences and try to communicate calmly to avoid arguments.

1. Any other reflection which I would like to write about formation of team and finalization of project title, if any?

Ans: As mentioned earlier, we all are satisfied with team formation and project topic finalization. We just need to give our best and make this project live as soon as possible. We didn’t get to face difficulties in the above activities.

**After Finalization of Project Proposal**

**(Answer to the following questions to be included in ‘Portfolio’ as reflection on planning)**

1. Which activities are having maximum risk and uncertainty in our project plan?

Ans: As we are the first group implementing this project. The activity having higher risk is to find the correct way in implementing the project. Once we find the correct way for implementing the project our task will become much easier.

1. What are most important activities in our project plan?

Ans: The current events website of MHSSP is static and uses WordPress which makes it difficult to create, manage and update digital content. Hence our most important activity was to make sure that the website is fully dynamic.

1. Is work distribution is equal project group members? If not? What are the reasons? How we can improve work distribution?

Ans: We first classified the activities; we need to complete for project development. After classifying the activities, we distributed it among us. While distributing the activities, we assigned the activity to the group member who is good in it. I think work distribution is equal among each group member.

1. Is it possible to complete the project in given time? If not then what are the reasons for it? How can we ensure that project is completed within time?

Ans: After classifying the activities, we assigned them the minimum time required for their completion. After summing up, the time required by all the activities we can conclude that we can complete the project in the given time.

1. What extra care and precaution should be taken in executing the activities of high risk and uncertainty? If possible, how such risks and uncertainties can be reduced?

Ans: While executing activities with higher risk, we should put up more efforts and all the group members should contribute to make the activity less effective. Activities with higher risk should be started earlier in case it requires more time.

1. Can we reduce the total cost associated with the project? If yes, then describe the ways.

Ans: Developing a software requires use of many technical tools. They may be paid software’s and working with them might be difficult and costlier. So, we need to find the best alternative which can provide us the same features and reduce the cost associated with the project.

1. For which activities of our project plan, arrangement of resources is not easy and convenient?

Ans: For implementing our project, we require software like Visual Studio which only runs on high end computer systems. But we will find ways to overcome this problem.

1. Did we make enough provisions of extra time/expenditure etc. to carry out such activities?

Ans: As we have assigned the minimum time required by an activity, so we can make a prediction on how much time our project needs to get completed. Activities which require more time can be started earlier and finished without any delay in the completion of the project.

1. Did we make enough provisions for time delays in our project activity? In which activities there are more chances of delay?

Ans: As earlier mentioned, we require more time in project implementation as we are the first people implementing the project. So, we are well prepared that we start the implementation part earlier so that it doesn’t delays our project completion.

1. In our project schedule, which are the days of more expenditure? What provisions we have made for availability and management of cash?

Ans:

1. Any other reflection which I would like to write about project planning?

Ans: In project planning, we distributed the project work and searched for the best possible way to complete our project. Some activities which require more time and effort should be started earlier with proper planning.

**Portfolio for Self Directed Learning for Major Project Work**

**Name of Student: Aditya Choudhary**

**Semester: 5th**

**Programme/Branch: Computer Engineering**

**Roll No: 19406**

**Title of the Project: MHSSP Events Hub**

**Name and Designation of Project Guide: Ms. Zaibunnisa Malik.**

**Name of Institute: M.H Saboo Siddik Polytechnic**

**(Answer to the following questions to be included in ‘Portfolio’ as reflection related to formation of group and finalization of project topic).**

1. How many alternatives we thought before finalizing the project topic?

Ans: Before finalizing the project topic, following are the alternatives we thought:

* The real time face mask detection.
* Traffic prediction for intelligent transport system.
* Anemia estimation for patients using machine learning
* Android smart city traveler
* Android blood bank.
* Machine Learning based Rainfall Prediction
* Dental carries detection system

1. Did we consider all the technical fields related to branch of our diploma programme?

Ans: While finalizing our topic we searched project on different domains covering all technical fields. We covered Internet of Things, Artificial Intelligence, Machine Learning, Data Science, Data Mining, Cloud Computing and many more.

1. Why we found present project topic as most appropriate?

Ans: Our present topic contributes to our college. It helps our college to arrange events. Hence we thought this topic would be the most appropriate.

1. Whether all the group members agreed on the present project topic? If not? What were the reasons of their disagreement?

Ans: At first there were some disagreements because all of us don’t have same fields of interest. Some of use liked AI while other liked IOT. But after we had a conversation this issue was resolved and we all agreed on our current topic i.e CMS based website for event management.

1. Whether the procedure followed in assessing alternatives and finalizing the project topic was correct? If not then discuss the reasons.

Ans: The procedure followed was correct as we considered everyone’s opinion and then decided on the project topic. Also, we were guided by our teachers.

1. What were the limitations in other alternatives of project topic?

Ans: There were various limitations in other project topics for example some of the topics were already done by our seniors and we wanted to do something new. Some of the topics were very common.

1. How we formed our team?

Ans: Group Members :

1. Ayesha Loladia
2. Aditya Choudhary
3. Arisha Rakhangi

All three of us were good at studying and were intelligent. All three of us had made group projects earlier also and were good at coordinating which each other. So we thought that we should team up and work on this project as a group.

1. Whether we faced any problem in forming the team? If yes, then what was the problem and how was it resolved?

Ans: We didn’t face any problems while forming the team as all of us were good friends before too we easily formed the team just by discussing it among ourselves.

1. Am I the leader of our project team? If yes, then why was I chosen? If not, why I could not become the project team leader?

Ans: No, I am not the leader of our team. I can manage the entire process of development and make my team members to give their best but I have little lack of confidence. Therefore I wasn’t elected as our leader. Team spirit is the key point behind a successful project and I will give my best to keep my team members motivated.

1. Do I feel that present team leader is the best choice available in the group? If yes, then why? If not then why?

Ans: We contested an election where each group member voted. While electing the leader each one of us, explained why we are electing the candidate. The result made Ayesha as the group leader so I feel that present team leader is the best choice available in the project group.

1. According to me who should be the leader of the team and why?

Ans: According to me the current team leader is the best choice. Under the leadership of our leader all our deadlines have been completed before time also our team is working very smoothly.

1. Can we achieve the targets set in the project work within the time and cost limits?

Ans: I think we can achieve the targets set in the project work as all my team members are good at completing deadlines. We will try our best.

1. What are my good/bad sharable experiences while working with my team which provoked me to think? What I learned from these experiences?

Ans: Sometimes we have disagreements among out team which I think leads to few problems. But we learned from these experiences and try to communicate calmly to avoid arguments.

1. Any other reflection which I would like to write about formation of team and finalization of project title, if any?

Ans: As mentioned earlier, we all are satisfied with team formation and project topic finalization. We just need to give our best and make this project live as soon as possible. We didn’t get to face difficulties in the above activities.

**After Finalization of Project Proposal**

**(Answer to the following questions to be included in ‘Portfolio’ as reflection on planning)**

1. Which activities are having maximum risk and uncertainty in our project plan?

Ans: As we are the first group implementing this project. The activity having higher risk is to find the correct way in implementing the project. Once we find the correct way for implementing the project our task will become much easier.

1. What are most important activities in our project plan?

Ans: The current events website of MHSSP is static and uses WordPress which makes it difficult to create, manage and update digital content. Hence our most important activity was to make sure that the website is fully dynamic.

1. Is work distribution is equal project group members? If not? What are the reasons? How we can improve work distribution?

Ans: We first classified the activities; we need to complete for project development. After classifying the activities, we distributed it among us. While distributing the activities, we assigned the activity to the group member who is good in it. I think work distribution is equal among each group member.

1. Is it possible to complete the project in given time? If not then what are the reasons for it? How can we ensure that project is completed within time?

Ans: After classifying the activities, we assigned them the minimum time required for their completion. After summing up, the time required by all the activities we can conclude that we can complete the project in the given time.

1. What extra care and precaution should be taken in executing the activities of high risk and uncertainty? If possible, how such risks and uncertainties can be reduced?

Ans: While executing activities with higher risk, we should put up more efforts and all the group members should contribute to make the activity less effective. Activities with higher risk should be started earlier in case it requires more time.

1. Can we reduce the total cost associated with the project? If yes, then describe the ways.

Ans: Developing a software requires use of many technical tools. They may be paid software’s and working with them might be difficult and costlier. So, we need to find the best alternative which can provide us the same features and reduce the cost associated with the project.

1. For which activities of our project plan, arrangement of resources is not easy and convenient?

Ans: For implementing our project, we require software like Visual Studio which only runs on high end computer systems. But we will find ways to overcome this problem.

1. Did we make enough provisions of extra time/expenditure etc. to carry out such activities?

Ans: As we have assigned the minimum time required by an activity, so we can make a prediction on how much time our project needs to get completed. Activities which require more time can be started earlier and finished without any delay in the completion of the project.

1. Did we make enough provisions for time delays in our project activity? In which activities there are more chances of delay?

Ans: As earlier mentioned, we require more time in project implementation as we are the first people implementing the project. So, we are well prepared that we start the implementation part earlier so that it doesn’t delays our project completion.

1. In our project schedule, which are the days of more expenditure? What provisions we have made for availability and management of cash?

Ans:

1. Any other reflection which I would like to write about project planning?

Ans: In project planning, we distributed the project work and searched for the best possible way to complete our project. Some activities which require more time and effort should be started earlier with proper planning.

**Portfolio for Self Directed Learning for Major Project Work**

**Name of Student: Arisha Rakhangi**

**Semester: 5th**

**Programme/Branch: Computer Engineering**

**Roll No: 19420**

**Title of the Project: MHSSP Events Hub**

**Name and Designation of Project Guide: Ms. Zaibunnisa Malik.**

**Name of Institute: M.H Saboo Siddik Polytechnic**

**(Answer to the following questions to be included in ‘Portfolio’ as reflection related to formation of group and finalization of project topic).**

1. How many alternatives we thought before finalizing the project topic?

Ans: Before finalizing the project topic, following are the alternatives we thought:

* The real time face mask detection.
* Traffic prediction for intelligent transport system.
* Anemia estimation for patients using machine learning
* Android smart city traveler
* Android blood bank.
* Machine Learning based Rainfall Prediction
* Dental carries detection system

1. Did we consider all the technical fields related to branch of our diploma programme?

Ans: While finalizing our topic we searched project on different domains covering all technical fields. We covered Internet of Things, Artificial Intelligence, Machine Learning, Data Science, Data Mining, Cloud Computing and many more.

1. Why we found present project topic as most appropriate?

Ans: Our present topic contributes to our college. It helps our college to arrange events. Hence we thought this topic would be the most appropriate.

1. Whether all the group members agreed on the present project topic? If not? What were the reasons of their disagreement?

Ans: At first there were some disagreements because all of us don’t have same fields of interest. Some of use liked AI while other liked IOT. But after we had a conversation this issue was resolved and we all agreed on our current topic i.e CMS based website for event management.

1. Whether the procedure followed in assessing alternatives and finalizing the project topic was correct? If not then discuss the reasons.

Ans: The procedure followed was correct as we considered everyone’s opinion and then decided on the project topic. Also, we were guided by our teachers.

1. What were the limitations in other alternatives of project topic?

Ans: There were various limitations in other project topics for example some of the topics were already done by our seniors and we wanted to do something new. Some of the topics were very common.

1. How we formed our team?

Ans: Group Members :

1. Ayesha Loladia
2. Aditya Choudhary
3. Arisha Rakhangi

All three of us were good at studying and were intelligent. All three of us had made group projects earlier also and were good at coordinating which each other. So we thought that we should team up and work on this project as a group.

1. Whether we faced any problem in forming the team? If yes, then what was the problem and how was it resolved?

Ans: We didn’t face any problems while forming the team as all of us were good friends before too we easily formed the team just by discussing it among ourselves.

1. Am I the leader of our project team? If yes, then why was I chosen? If not, why I could not become the project team leader?

Ans: No, I am not the leader of our team. I can manage the entire process of development and make my team members to give their best but I have little lack of confidence. Therefore I wasn’t elected as our leader. Team spirit is the key point behind a successful project and I will give my best to keep my team members motivated.

1. Do I feel that present team leader is the best choice available in the group? If yes, then why? If not then why?

Ans: We contested an election where each group member voted. While electing the leader each one of us, explained why we are electing the candidate. The result made Ayesha as the group leader so I feel that present team leader is the best choice available in the project group.

1. According to me who should be the leader of the team and why?

Ans: According to me the current team leader is the best choice. Under the leadership of our leader all our deadlines have been completed before time also our team is working very smoothly.

1. Can we achieve the targets set in the project work within the time and cost limits?

Ans: I think we can achieve the targets set in the project work as all my team members are good at completing deadlines. We will try our best.

1. What are my good/bad sharable experiences while working with my team which provoked me to think? What I learned from these experiences?

Ans: Sometimes we have disagreements among out team which I think leads to few problems. But we learned from these experiences and try to communicate calmly to avoid arguments.

1. Any other reflection which I would like to write about formation of team and finalization of project title, if any?

Ans: As mentioned earlier, we all are satisfied with team formation and project topic finalization. We just need to give our best and make this project live as soon as possible. We didn’t get to face difficulties in the above activities.

**After Finalization of Project Proposal**

**(Answer to the following questions to be included in ‘Portfolio’ as reflection on planning)**

1. Which activities are having maximum risk and uncertainty in our project plan?

Ans: As we are the first group implementing this project. The activity having higher risk is to find the correct way in implementing the project. Once we find the correct way for implementing the project our task will become much easier.

1. What are most important activities in our project plan?

Ans: The current events website of MHSSP is static and uses WordPress which makes it difficult to create, manage and update digital content. Hence our most important activity was to make sure that the website is fully dynamic.

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Ans: After classifying the activities, we assigned them the minimum time required for their completion. After summing up, the time required by all the activities we can conclude that we can complete the project in the given time.

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Ans: While executing activities with higher risk, we should put up more efforts and all the group members should contribute to make the activity less effective. Activities with higher risk should be started earlier in case it requires more time.

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Ans: For implementing our project, we require software like Visual Studio which only runs on high end computer systems. But we will find ways to overcome this problem.

1. Did we make enough provisions of extra time/expenditure etc. to carry out such activities?

Ans: As we have assigned the minimum time required by an activity, so we can make a prediction on how much time our project needs to get completed. Activities which require more time can be started earlier and finished without any delay in the completion of the project.

1. Did we make enough provisions for time delays in our project activity? In which activities there are more chances of delay?

Ans: As earlier mentioned, we require more time in project implementation as we are the first people implementing the project. So, we are well prepared that we start the implementation part earlier so that it doesn’t delays our project completion.

1. In our project schedule, which are the days of more expenditure? What provisions we have made for availability and management of cash?

Ans:

1. Any other reflection which I would like to write about project planning?

Ans: In project planning, we distributed the project work and searched for the best possible way to complete our project. Some activities which require more time and effort should be started earlier with proper planning.

**Project**

**Logbook**

|  |
| --- |
| **Week No: 01** |
| **Activities Planned:**   1. In the first week we Finalized a group of 3 students and verified it with ma’am. 2. After creation of the groups ma’am ordered us to do research about different topics in different fields. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started searching about the areas like in how many areas we can do research. |
| **Remark and Signature of the Guide:** |
| **Week No: 02** |
| **Activities Planned:**   1. Ma’am told us to make synopsis of 10 topics so we started searching different topics in different areas like Web based, Artificial Intelligence, Machine Learning, Android Application, Data Science, Data Mining, Augmented Reality, etc. 2. We distributed the mentioned areas in three parts and each member started searching about their respective topics in depth. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started searching for different topics from various sources like IEEE papers, Journals and Technical Articles. 2. We also collected few IEEE Papers, Journals and Articles for Literature Survey. 3. We started preparing our synopsis for the same. |
| **Remark and Signature of the Guide:** |
| **Week No: 03** |
| **Activities Planned:** In this week, we submitted the synopsis and ma’am suggested us to make a web based project. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:** We started searching web based topics. |
| **Remark and Signature of the Guide:** |
| **Week No: 04** |
| **Activities Planned:** In this week we decided to make a CMS based website and we saw that our college website was static and other college websites were CMS based so we decided to make a CMS based website of our college. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We decided to make a CMS based website of our college 2. Ma’am also approved our topic. |
| **Remark and Signature of the Guide:** |
| **Week No: 05** |
| **Activities Planned:**   1. We finalized the topic and started creating the Problem Identification. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started creating the documentation of problem identification. 2. We also had to give a name of our website so we gave a name **“MHSSP Events Hub”**. |
| **Remark and Signature of the Guide:** |
| **Week No: 06** |
| **Activities Planned:** In this week we submitted the documentation of problem identification and started creating documentation of Industrial Survey & Literature Review. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started searching different research papers like IEEE papers, Conference papers, White Papers, IJRT Papers, etc. 2. We started preparing our Literature review for the same. |
| **Remark and Signature of the Guide:** |
| **Week No: 07** |
| **Activities Planned:**   1. We identified the resources and searched for more IEEE papers, Conference papers IJRT papers, White Papers related to our Project. 2. We searched for 30 papers IEEE papers, Conference papers IJRT papers, White Papers related to our Project. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We searched for 30 papers IEEE papers, Conference papers IJRT papers, White Papers related to our Project. |
| **Remark and Signature of the Guide:** |
| **Week No: 08** |
| **Activities Planned:**   1. We submitted documentation of Industrial Survey & Literature Review and started preparing for Project Proposal. 2. We defined our Problem Statement with Proposed Methodology, Aim, Objective and Resources. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started gathering information for our Project Proposal. 2. We defined our Problem Statement with Proposed Methodology, Aim, Objective and Resources. |
| **Remark and Signature of the Guide:** |
| **Week No: 09** |
| **Activities Planned:**   1. We submitted documentation of Project Proposal and started creating our final report. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We decided to divide the final report chapters among us. |
| **Remark and Signature of the Guide:** |
| **Week No: 10** |
| **Activities Planned:**   1. We completed the Final report but when ma’am checking the document at that time ma’am told us to make some changes so we started making the changes in the document. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started making the changes in the document that ma’am told us. |
| **Remark and Signature of the Guide:** |
| **Week No:11** |
| **Activities Planned:**   1. We merged all the chapters and created our Final Report then we submitted the documentation of project. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We merged all the chapters and created our Final Report then we submitted the documentation of project. |
| **Remark and Signature of the Guide:** |
| **Week No: 12** |
| **Activities Planned:**   1. We started creating the Project portfolio and also we started making the Log book. 2. We distributed the work among us |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started creating the Project portfolio and also we started making the Log book. |
| **Remark and Signature of the Guide:** |
| **Week No: 13** |
| **Activities Planned:**   1. We completed the Portfolio but when ma’am checking the document at that time ma’am told us to make some changes so we started making the changes in the document. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started making the changes in the document that ma’am told us. |
| **Remark and Signature of the Guide:** |
| **Week No: 14** |
| **Activities Planned:**   1. We submitted the Project Portfolio. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We submitted the project portfolio. |
| **Remark and Signature of the Guide:** |
| **Week No: 15** |
| **Activities Planned:**   1. In this week ma’am informed us that we have to give the presentation of our project so we decided to make the ppt and ma’am gave us some ideas about how to make the ppt and what we should include in the ppt and what we have to skip. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We started making the PPT. |
| **Remark and Signature of the Guide:** |
| **Week No: 16** |
| **Activities Planned:** In this week we had to give the presentation of our project so we firstly completed the ppt and then by creating zoom meetings we practised about the presentation like how we will present the content and who will explain what part. |
| **Reason for Delay if any:** There is no delay in this week |
| **Action Taken on Planned Activities/Corrective measures adopted:**   1. We completed the PPT and practised about the presentation like how we will present the content and who will explain what part |
| **Remark and Signature of the Guide:** |