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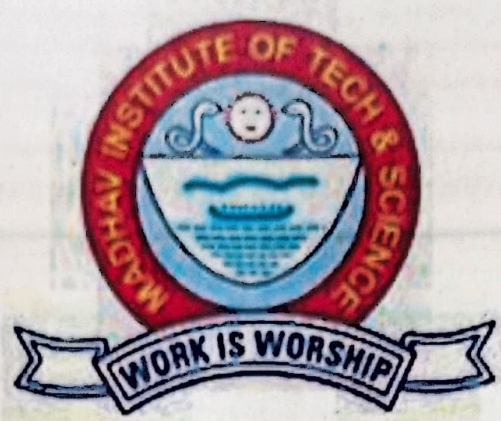

Project Report

on

Know Your College

Submitted By:

Layak pratap singh

0901CS203D03

Faculty Mentor:

Khushboo Agarwal

Assistant Professor, Computer Science & Engineering

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
GWALIOR - 474005 (MP) est. 1957

MAY-JUNE 2022

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Know Your College

A project report submitted in partial fulfilment of the requirement for the degree of

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

Submitted by:

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Faculty Mentor:

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CERTIFICATE

This is certified that **Layak pratap singh(0901CS203D03)** has submitted the project report titled **KYN-Know Your College** under the mentorship of **Mrs. Khushboo Agarwal,** in partial fulfilment of the requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering from Madhav Institute of Technology and Science, Gwalior.

Khushboo Agarwal
Faculty Mentor
Assistant Professor
Computer Science and Engineering

10/05/2021

Dr. Manish Dixit
Professor and Head
Computer Science and Engineering

Dr. Manish Dixit
Professor & HOD
Department of CSE
M.I.T.S. Gwalior

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE, GWALIOR

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DECLARATION

I hereby declare that the work being presented in this project report, for the partial fulfilmentof requirement for the award of the degree of Bachelor of Technology in Computer Science and Engineering at Madhav Institute of Technology & Science, Gwalior is an authenticated and original record of my work under the mentorship of **Mrs. Khushboo Agarwal**, **Assistant Professor**, Computer Science and Engineering.

We declare that we have not submitted the matter embodied in this report for the award of any degree or diploma anywhere else.

Layak Pratap Singh
0901CS203D03
3rd Year
CSE

MADHAV INSTITUTE OF TECHNOLOGY AND SCIENCE, GWALIOR

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I am sincerely thankful to my faculty mentors. I am grateful to the guidance of **Mrs. Khushboo Agarwal**, **Assistant Professor**, Computer Science and Engineering for their continued support and guidance throughout the project. I am also very thankful to the faculty and staff of the department.

Layak Pratap Singh
0901CS203D03
3rd Year
CSE

Abstract

Every year 10 lakh students give JEE mains only, Imagine the number of students who give exams for college entry every year. These students think and search for colleges the whole year, this is our target traffic we seek to capture for our website. know your college helps you find the best college for your future. Students can find the college details and various factors like faculty ratings and student ratings for various colleges over the country. Faculty members can log in to provide college ranking and students can provide student ratings. In future we intend to inculcate student to student video chat for live experience of campus for students who seek admission in college. Students spend a lot of money on college search, for visiting campuses and to know more about environment of college.
Our website will help them cut that cost significantly.

Keywords: target, capture, ratings, rankings, experience, inculcate, significantly

TABLE OF CONTENTS

CHAPTER 1: PROJECT OVERVIEW

1.1 Introduction

Every year 10 lakh students give JEE itself the total number of students that give exams of various field is very high which will provide traffic for this website. The whole year people search for the dream coll -ege and prepare accordingly. Indian market for education is very large and we intend to fullfill the need s of
this market in our own manner helping students achieve bright future.
It also provides latest news of the college which every year provides ranking, safety and branch wise a nd career wise prospect of various colleges in our country.
Since it's a website its current activity requires a web browser to run.
It will run on personal computers and laptops for now and will have various functionalities in future. It provides daily news videos about the college universe and everything related to it.

1.2 Objective and Scope

KYN-know your college helps you find the best college for your future. Students can find the college details and various factors like faculty ratings and student ratings for various colleges over the country. Faculty members can log in to provide college ranking and students can provide student ratings. In future we intend to inculcate student to student video chat for live experience of campus for students who seek admission in college. Students spend a lot of money on college search, for visiting campuses and to know more about environment of college.

Our website will help them cut that cost significantly.

1.3 Project Features

Our project is based on Ext.js framework which is highly scalable and currently runs on tomcat server 8.5. We manage our database using mysql servers.Eclipse is an integrated development environment used in computer programming. It contains a base workspace and an extensible plug-in system for customizing the environment. It is the second-most-popular IDE for Java development, and, until 2016, was the most popular..

1.4 Feasibility

1.4.1 Operational Feasibility

It also provides latest news of the college which every year provides ranking, safety and branch wise and career wise prospect of various colleges in our country.Since it's a website its current activity requires a web browser to run.It will run on personal computers and laptops for now and will have various functionalities in future. It provides daily news videos about the college universe and everything related to it.The project is feasible in terms of operations as it can be implemented anywhere with internet connectivity and system to process.

1.4.2 Economic Feasibility

In the Economic Feasibility study, the cost and benefit of the project are analyzed. This means under this feasibility study a detailed analysis is carried out of what will be the cost of the project for develop-ment which includes all required costs for final development like hardware and software resources required, design and development cost and operational cost and so on. After that, it is analyzed whether the project will be beneficial in terms of finance for the organization or not.The project has an economical constraint as the API with more number of request and good internetconnectivity require more budget.

1.4.3 Legal Feasibility

In Legal Feasibility study project is analyzed from a legal point of view. This includes analyzing barriers of legal implementation of project, data protection acts or social media laws, project certificate, license, copyright etc. Overall it can be said that Legal Feasibility Study is a study to know if proposed project conform to legal and ethical requirements. The project is feasible legally.

1.5 System Requirements

Windows Based Requirements:

Computers running Microsoft Windows must meet the following minimum hardware and software requirements.
Microsoft Windows: 7/8/10/11

4 GB RAM minimum, 8 GB RAM recommended
1GB of available disk space minimum
1280 * 800 minimum screen resolution
Software Requirement: Python 3.10.4
Hardware Requirement: Laptop/Computer
Internet Connectivity

CHAPTER 2: LITERATURE REVIEW

2.1 Quantitative Analysis

While in the past site selection may have been based on intuition, a wide spectrum of techniques is used for site selection and potential and current market study. This may include data analysis, sales forecasti -ng, general area analysis of economic conditions, potential competition andgrowth, or simply checklists

Quantitative research can be defined as any research that uses of numbers as the basis for generating inferences about the phenomenon under study. The statistical approaches to sampling, measurement, and data analysis, are a hallmark of quantitative research; statistics are genuinely relevant to quantitative approaches because it involves statistical modeling of the interrelationships between variables. Among the variety of methodologies and data analysis strategies that are employed in quantitative research, there is the relational or correlational research strategy [1]. Furthermore, correlational research is in charge of investigating the nature of the relationship between the variables (or factors) and getting and testing the theoretical model that might explain the resultant correlation.

When there are two quantitative variables (of interval on ration scale of measurement), it is possible to validate their relationship through mathematics and geometry statistical tests. If the mathematical qualities of a line are used to calculate the systematic change in the scores of a dependent variable (y) from an independent variable (x), its correlation is being calculated.

The procedure to overcome the best estimates of a variable y, taking into account its relationship with a variable x, is known as simple or bivariate linear correlation and regression analysis. This procedure consists of applying the formulas to a straight line to get y-intercept.

2.2 Competitor Analysis

Competitor websites will help us gather more data at faster way but at the same time they pose a threat of stealing key features of our website. To quickly match up with current competition we need to rush to advertisement as much as possible. With high support from students of which no such website as ours in competition which attracts students directly we can push much faster than current competition.

2.3 Neighborhood Analysis

Neighborhoods are not a constraint for our website as it is an online website search for college.

CHAPTER 3: PRELIMINARY DESIGN

3.1 Software Development Life Cycle Model

3.1.1 Rapid Application Development

Reason since the software size was not much large and there was a time crunch and the project was made in modules therefore in this project I used Rapid Application Development. A software project can be implemented using this model if the project can be broken down into small modules wherein each module can be assigned independently to separate teams. These modules can finally be combined to form the final product

Data Flow Diagram

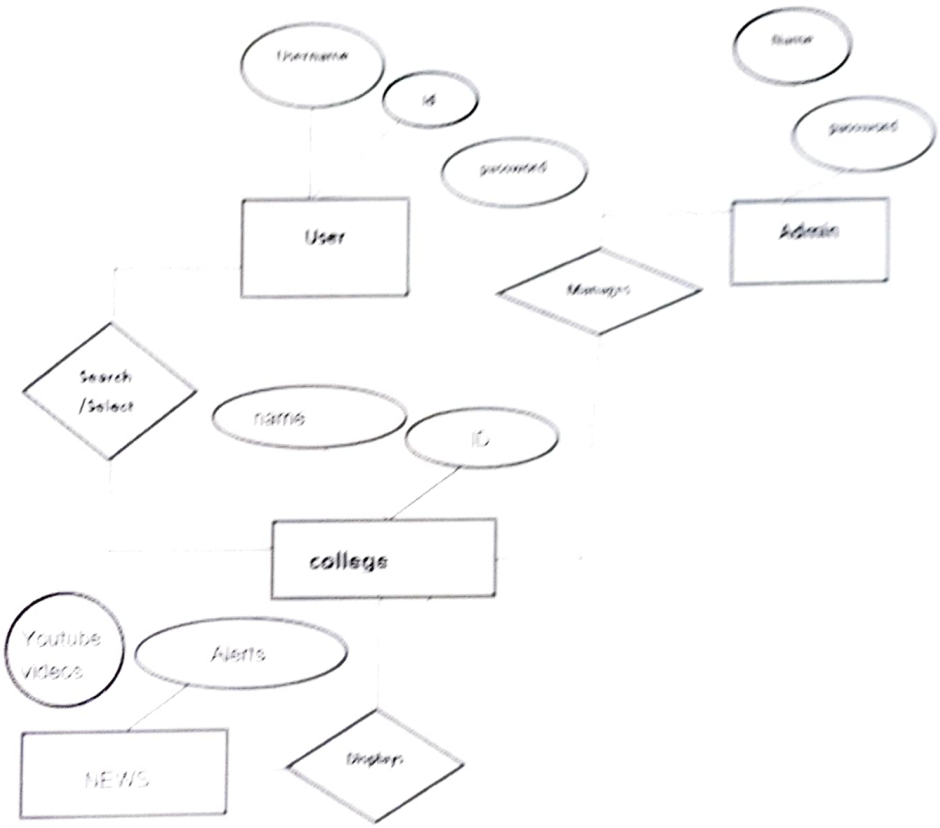

Fig 3.1 Data flow diagram

3.3 Tools & Technologies

3.3.1 Javascript

Python Javascript is used by programmers across the world to create dynamic and interactive web content like applications and browsers. JavaScript is so popular that it's the most used programming language in

the world, used as a client-side programming language by 97.0% of all websites.

3.3.2 MySql server

MySQL is a relational database management system (RDBMS) developed by Oracle that is based onstructured query language (SQL). A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or a place to hold the vast amounts of information in a corporate network.

3.3.3 Tomcat server

It is mainly used to provide the foundation for hosting Java servlets. The Apache Tomcat works in th enter while Java Server Pages and Servlet produce the dynamic pages. It is one of the server-side programming languages that facilitate the developer to run and perform independent dynamic content creation.

3.3.4 Eclipse IDE

Eclipse is an integrated development environment used in computer programming. It contains a base workspace and an extensible plug-in system for customizing the environment. It is the second-most-popular IDE for Java development, and, until 2016, was the most popular..

3.3.5 Atom

Atom is a free and open-source text and source code editor for macOS, Linux, and Microsoft Window s with support for plug-ins written in JavaScript, and embedded Git Control. Developed by GitHub, Atom is a desktop application built using web technologies.

3.3.6 Frameworks and Java applications used

3.3.6.1 Spring

The Spring Framework is an open-source framework for building enterprise Java applications. Spring aims to simplify the complex and cumbersome enterprise Java application development process by offering a framework that includes technologies such as: Aspect-oriented programming (AOP) Dependency injection (DI)

3.3.6.2 Struts

Struts is an open source framework that extends the Java Servlet API and employs a Model, View, Controller (MVC) architecture. It enables you to create maintainable, extensible, and flexible web applications based on standard technologies, such as JSP pages, JavaBeans, resource bundles, and XML..

3.3.6.3 Hibernate

Hibernate is an open source Object-Relational Persistence and Query service for any Java Application. Hibernate maps Java classes to database tables and from Java data types to SQL data types and relieves the developer from most common data persistence related programming tasks..

3.3.6.4 jdbc mysql connecter

MySQL provides connectivity for client applications developed in the Java programming language with MySQL Connector/J, a driver that implements the Java Database Connectivity (JDBC) API. MySQL Connector/J is a JDBC Type 4 driver. Different versions are available that are compatible with the JDBC 3.0 and JDBC 4.

3.3.7 Dynamic Web Projects and Ext JS

Eclipse for Java EE developers comes with http://www.eclipse.org/webtools/%5BWeb Tools Platform] that simplifies development of Web applications by allowing you to create so-called Dynamic Web Project, which will be specifically created for deployment under a particular Java server – Apache Tomcat in our case.

To create such a project select Eclipse menu File | New | Other | Web | Dynamic Web Project. It'll pop up a window similar to shown below. Note that the Target Runtime is Apache Tomcat v7.0 that we've configured in the previous section.

Fig 3.2 Tomcat Installation

Upon creation, this project will include several directories, and one of them will be called *WebContent*. This directory it serves as a document root of the Web server in Eclipse Dynamic Web Projects . This is the place

to put your index.html and one of possible places to keep the Ext JS framework.Create a subdirectory *ext* under *WebContent* and copy there all files from the Ext JS distribution. The *app* directory should also go under *WebContent*.

Unfortunately, Eclipse IDE is infamous for slow indexing of JavaScript files, and given the fact that Ext JS has hundreds of JavaScript files, your work may be interrupted by Eclipse trying to unnecessary revalidate these files.

If you don't have Sencha Eclipse plugin, there is a couple of solutions to this problem (we'll use the first one).

1. Exclude from Eclipse build the following Ext JS directories: ext, build, and packages.

2. Don't copy the Ext JS framework into your Eclipse project. Keep it in the place known for Tomcat, and configure as a loadable module.

To implement the first solution, right click on the properties of your project and select JavaScript | Include Path. Then switch to the Source tab, expand the project's Web content and press the buttons Edit and then Add. One by one add the ext, build, and packages as exclusion patterns (add the slash at the end). 4.1.1

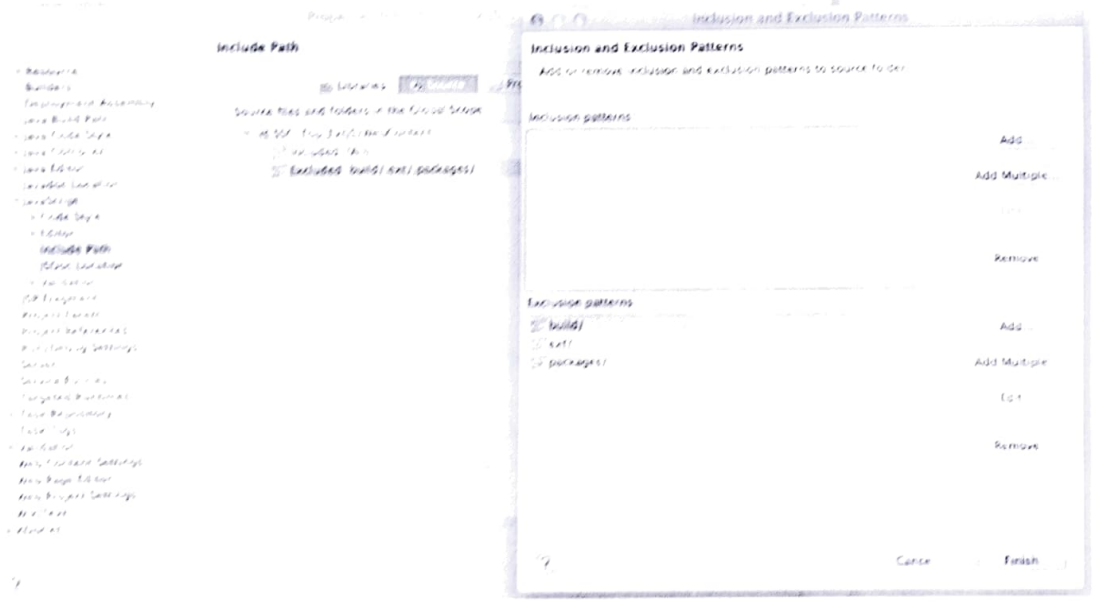

Fig 3.3 Tomcat Installation

For the second solution. In this case you'll need to add your Ext JS folder as a static Tomcat module. Double-click at the Tomcat name in the Servers view and then click on the bottom tab Modules. Then click on Add External Web Module. In the popup window find the folder where your Ext JS is (in my computer it's inside the Library folder as in below screensot) and give it a name (e.g. /static/extjs-4.2).

Now Tomcat will know that on each start it has to load year another static Web module known as /static/extjs-4.2. If you're interested in details of such deployment, open up the file server.xml located in your Eclipse workspace in the directory .metadata/.plugins/org.eclipse.wst.server.core/tmp0/conf.

To ensure that you did everything right, just enter in your browser the URL http://localhost:8080/static/extjs-4.2, and you should see the Ext JS Welcome screen.

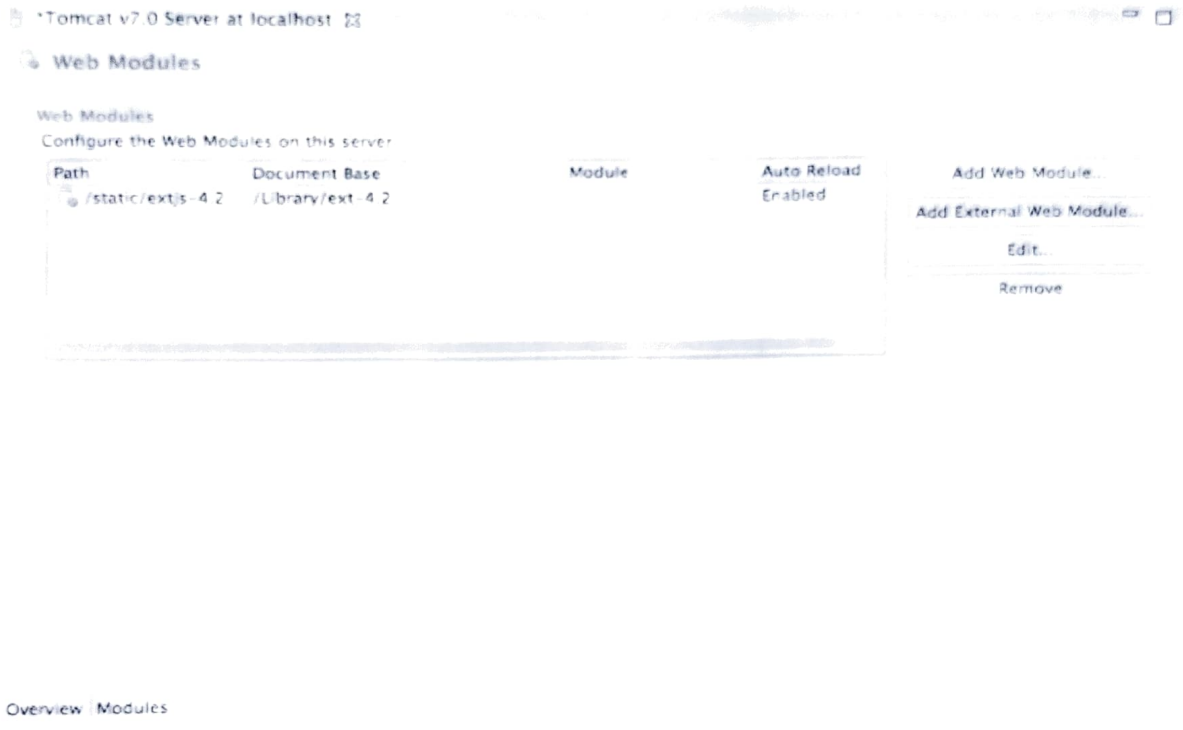

Fig 3.4 Tomcat Installation

In both of these solutions you'll lose the Ext JS context sensitive help, but at least you will eliminate the long pauses caused by Eclipse internal indexing processes. Again, developing ExtJS code in Web Storm IDE or IntelliJ IDEA IDEs would spare you from all these issues.

CHAPTER 4: FINAL ANALYSIS AND DESIGN

4.1 Homepage

The final design of this webite Is very simple user friendly interface and can be used easily. Its very clean and fast.It has a navigation panel to easily scroll from page one to another.The news page for videos uses youtube. We will be updating database on the basis of a review time.

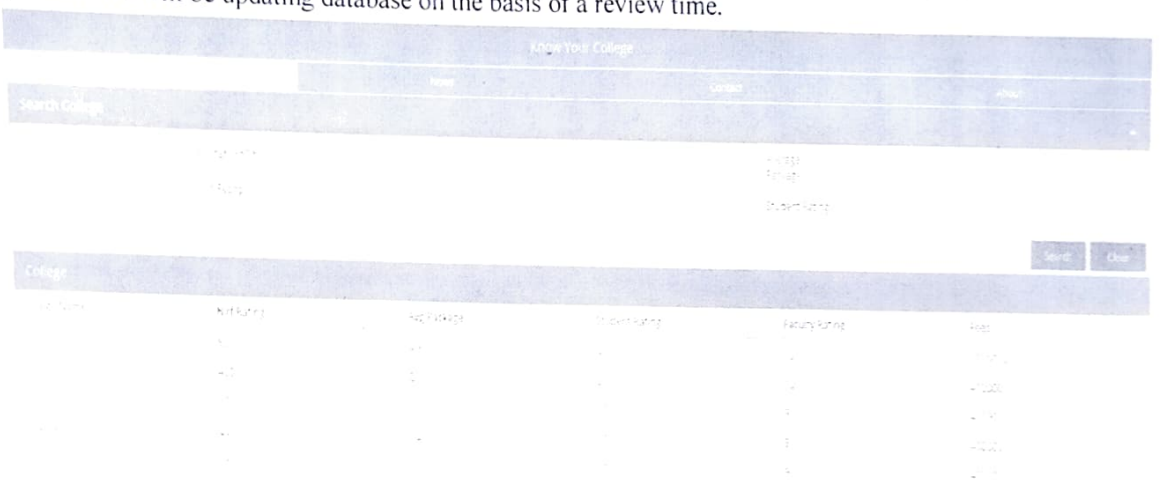

Fig 4.1 Homepage

This is the final Home page of our website which is provided with a navigation bar and a enhanced search with our dataset from mysql servers.

4.2 Results

Our website provide search based on various factors.Data set is already available for users,Users can login and signup easily and get them selves registered, We also updates of best colleges and reviews of current session every years with solid reviews.

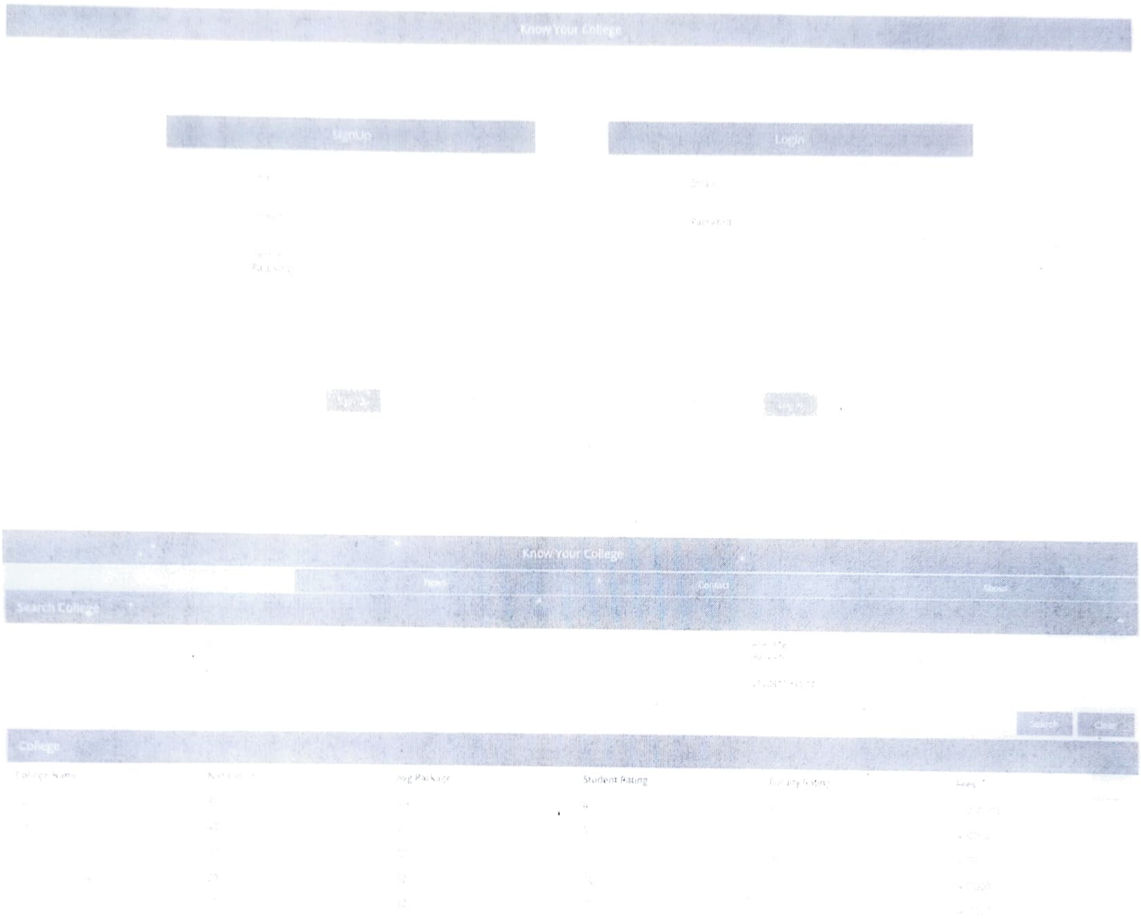

Fig 4.2 Resultant Interface

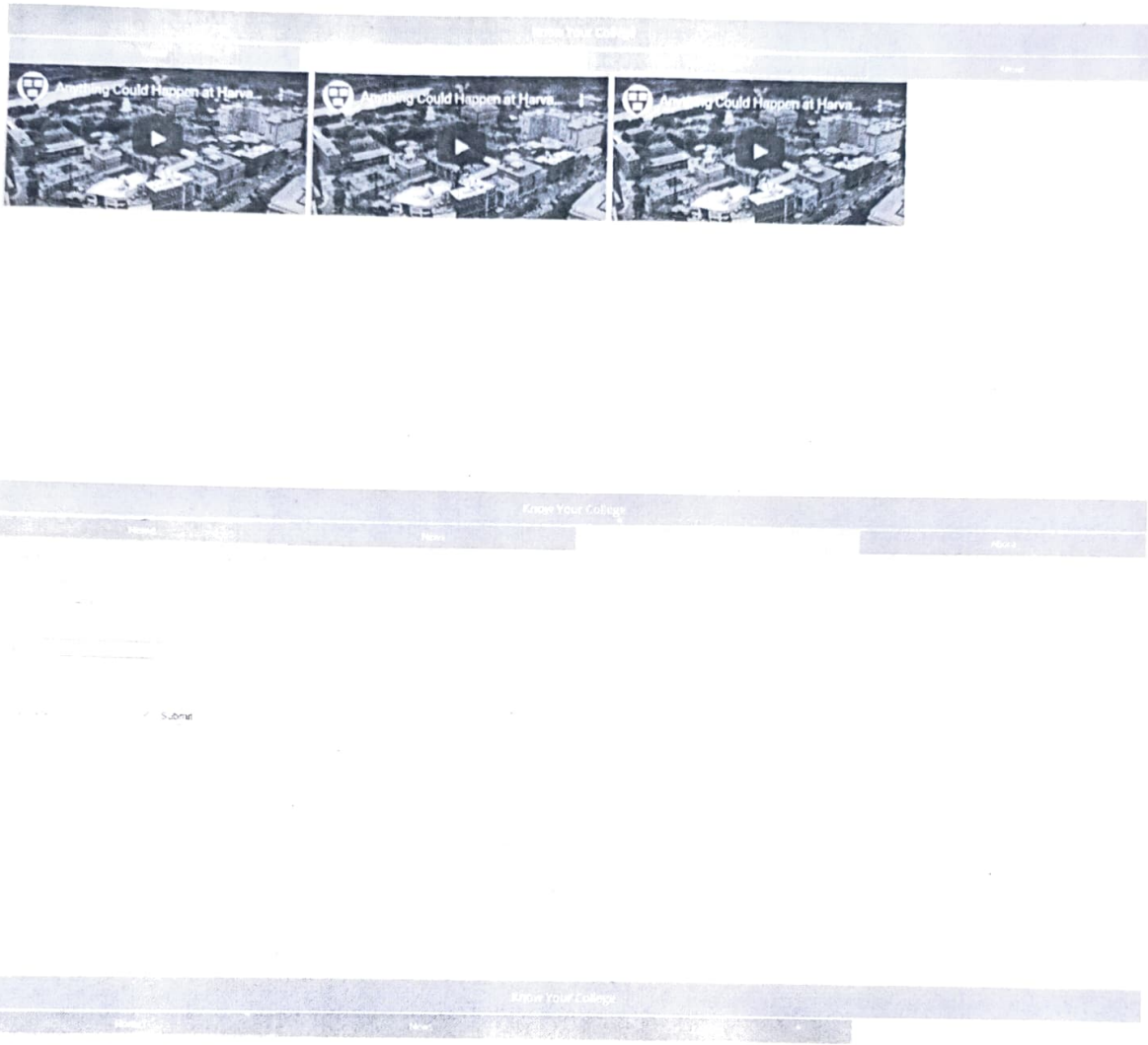

Fig 4.3 Other pages (News,Contact,About pag)

4.3 Result Analysis

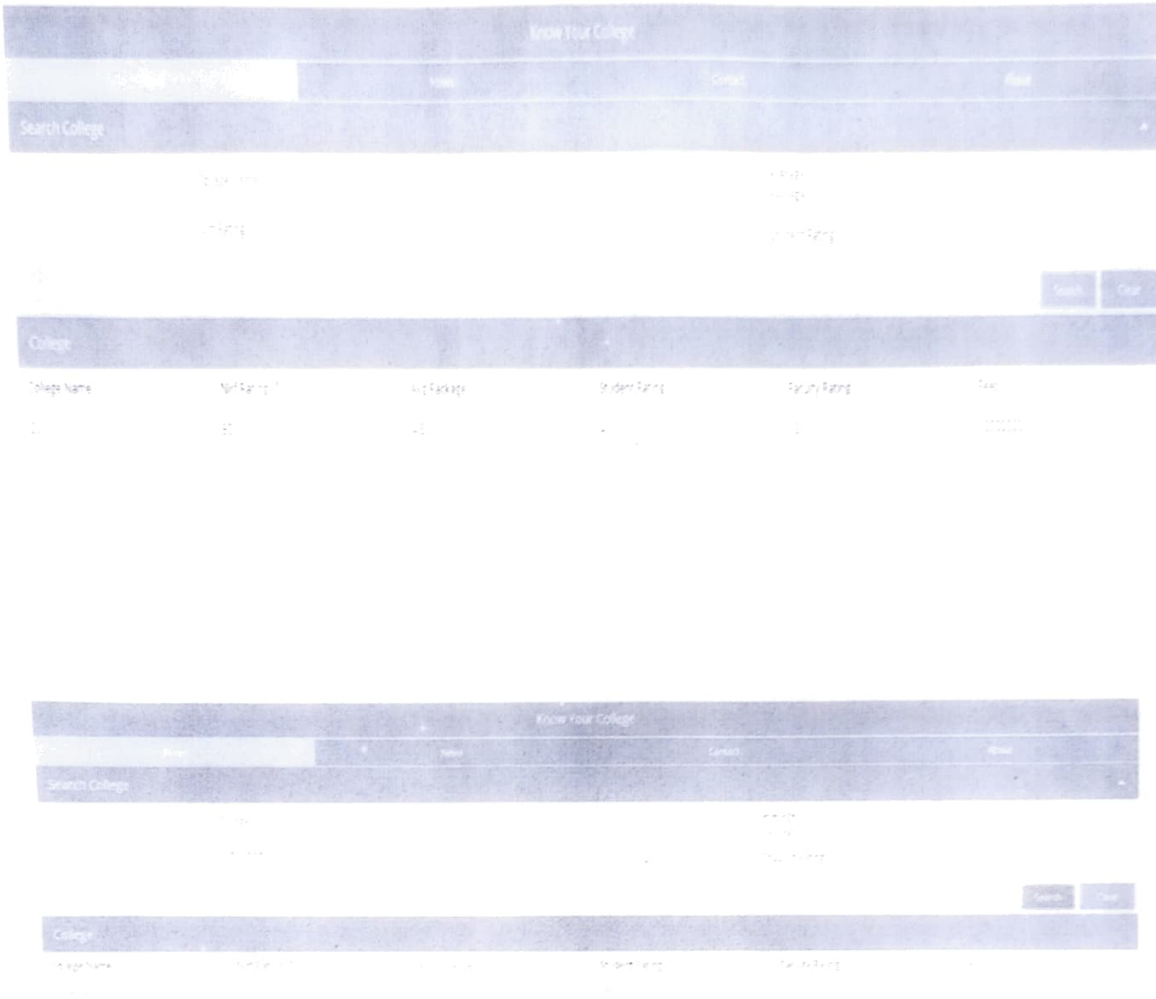

Fig 4.4 Search Results

4.4 Application

This can be used by the stakeholders for getting information about the market place where they want to open a new restaurant. This will also help stakeholders by predicting the optimal place for opening of restaurant, and can also predict whether the location chosen by them comes in green zone, yellow zoneor red zone.

4.5 Problems Faced

While developing the project we faced various problems some of them are:

Since Goggle map API is paid which leads to use an alternative of it that is MapQuest.

Alternative of google map is not much accurate to that extinct.

Connection Time out while API call is a big issue.

4.6 Limitations

Response of an API call for each neighborhood candidate is time taking.

Number of API request per hour is quite low which affects the system efficiency.

Low accuracy of Machine Learning Model due to small size of dataset.

CHAPTER 5: CONCLUSION AND FUTURE SCOPE

5.1 Conclusion

Purpose of this project is to find the best college for students to have a better future.This website is in its early stages though it is fully functional with database of login as well as of colleges.
We require a very large database of to full the needs of the users and the data sets authecity is also on eof the key problems that we face.

5.2 Future Scope

- We will try to enhance the dataset by including more colleges.
- We will incorporate a reward based environment for students who are already in college to provide us with authenticate dataset.
- We intend incorporate end to end video call for users .
- We also intend to provide higher level of authoriastion for authorized faculty members.

References

1. Yhttps://yakovfain.com/2013/04/24/configuring-eclipse-with-apache-tomcat-and-ext-js/
2. https://netbeans.apache.org › quickstart-webapps-struts
3. https://en.wikipedia.org/wiki/Apache_Tomcat
4. https://developer.mozilla.org/en-US/docs/Learn/JavaScript/First_steps/What_is_JavaScript
5. https://docs.sencha.com/extjs/6.2.0/classic/Ext.Action.html
6. Chisholm, and May. *Universal Design for Web Applications: Web Applications That Reach Everyone*, O'Reilly Media, 2008.