VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI-590014

Internship Report on

FULL STACK WEB DEVELOPMENT INTERNSHIP

Submitted in the partial fulfilment of the requirements for the award of the Degree of ***Bachelor of Engineering in Computer Science and Engineering***

Submitted by,

Vaishnavi Balkrishna Kutre (2JI18CS053)

Internship Carried Out
At
TEQUED LABS

3, 1st Main Rd, Ittamadu, Banashankari 3rd Stage, Bengaluru, Karnataka 560085

Under the guidance of

Mr. NITHIN C NAIK as Project Guide

Department of Computer Science and Engineering

Jain college of Engineering

Macche ,BELGAVI

Certificate issued at Organization where the project was carried out

TEQUED LABS

3, 1st Main Rd,Ittamadu,Banashankari 3rd Stage,Bengaluru,Karnataka-560085

CERTIFICATE

Certified that the Internship entitled **"FULL STACK WEB DEVELOPMENT"** carried out by

Vaishnavi Balkrishna Kutre, bearing the USN **(2JI18CS053)** a Bonifide student of VII Semester B.E, The Jain College of Engineering, Belgaum in partial fulfilment for the award of the Degree of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the year 2021-2022. Is certified that,she has completed the 4weeks of internship training.

Vaishnavi B Kutre

JAIN COLLEGE OF ENGINEERING

Macche , Belguam– 590014

(Affiliated to Visvesvaraya Technological University, Belgaum)

Department of Computer Science and Engineering

CERTIFICATE

Certified that the project work entitled **"FULL STACK WEB DEVELOPMENT INTERNSHIP"** carried out by **Vaishnavi Balkrishna Kutre (2JI18CS053)** Bonifide students of Jain College of Engineering, Belguam in partial fulfilment for the award of the Degree of **Bachelor of Engineering in Computer Science and Engineering** of **Visvesvaraya Technological University, Belgaum** during the year 2021-2022. The Mini project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

Mr. Pavan Ughade	**Dr. Uttam Patil**	**Dr. K G Vishwanath**
Assot.Prof.,Dept. CSE	**H.O.D,Dept. of CSE**	**Principal, JCE**

External Viva

Name of the Examiners	**Signature with Date**
1._____	_____
2._____	_____

DECLARATION

I, the undersigned solemnly declare that the report of the internship work entitled FULL SATCK WEB DEVELOPMENT INTERNSHIP is based on my work carried out during the course study under the supervision of Mr. Pavan Ughade,Asst. Prof, Department of CSE, JAIN COLLEGE OF ENGINEERING, Belgaum and Mr.NITHIN C NAIK , Tequed Labs, Bangalore. This internship work was done at the Tequed Labs, 3, 1st Main Rd, Ittamadu, Banashankari 3rd Stage, Bangalore.

I assert that the statements made and conclusions drawn are an outcome of the internship work. I further declare that, to the best of my knowledge and belief, that this report does not contain any work which has been submitted for the award of the degree or any other degree in this university or any other university.

Vaishnavi B Kutre

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CHAPTER 1: INTRODUCTION

1.1 Introduction to Internship

An internship is a structured work experience related to a student's major and/or career goal. It is an experience that should enhance a student's academic, career, and personal development. It is an involvement, closely aligned with the student's major and arranged with an employer who believes it is desirable to aid in the training and education of the student. It is of a short duration, typically two to four months, through direct personal contact hours or through a training program, and to aid the intern in developing a summary report of his/her experience. This internship program is designed by Tequed labs for the partial fulfilment of the degree of Bachelor of Engineering. The intern is honoured by the internship program under this curriculum. This program has enhanced the skill and enthusiasms of the students as they get knowledge of the company environments and to learn different aspects of working mechanism that prevail in the organizations.

1.2 Internship Program Objective

The major objectives of internship are:

· To expose students to a particular job and a profession or industry. · To provide students with opportunity to develop skills in the field of interest. · To assist students in gaining vital work-related experience and building strong resume for bright career.

· To help students in developing business contacts i.e. creating network contacts. ·

To help students potentially land permanent or contractual jobs from host company.

1.3 About TEQUED LABS

Tequed Labs Private Limited is a Private incorporated on 22 January 2018. It is classified as Non-govt Company and is registered at Registrar of Companies, Bangalore. Tequed Labs is a research and development centre and educational institute based in Bangalore. They are focused on providing quality education on latest technologies and develop products which are of great need to the society. They also involve in distribution and sales of latest electronic innovation products developed all over the globe to their customers. They run a project consultancy where they undertake various projects from wide range of companies and assist them technically and build products and provide services to them. They are continuously involved in research about futuristic technologies and finding ways to simplify them for their clients.

1.3.1 Vision

To be a world-class research and development organisation committed to enhancing stakeholder's value.

1.3.2 Mission

To build best products that is socially innovative with high-quality attributes and provides excellent education to all.

1.3.3 Values

· Zeal to excel and zest for change.

· Integrity and fairness in all matters.

· Respect for dignity and potential of individuals

· Strict adherence to commitments.

· Ensure speed of response.

· Faster learning, creativity and team-work.

· Loyalty and pride in the company

CHAPTER 2 : SYSTEM REQUIREMENTS AND SYSTEM ANALYSIS

2.1 Requirement Collection

Front End Development requirements are a list of necessary functions, capabilities or characteristics related to WordPress theme and plans for creating it.

The process that was held while collecting the requirements of the system are as follows:

- **Team Discussion**

  Team discussion is the process of discussing how the project should be implemented by the professionals.

- **Understanding the focused group**

  Theme should have the aim of what the audience want to see in the theme.

2.2 System Requirements

2.2.1 Functional Requirements

Functional requirement of the system describes what the system does. The main functional requirements of this system are as follows:

- User should be able to view all the necessary information and specification about this

project.

- Browser compatibility.
- Responsive to all devices.
- Administrator (Theme Developer) can modify theme under GPL license.[1]

2.2.2 Non-Functional Requirements

A non-functional requirement describes how the system performs a certain function.

Non-functional requirements generally specify the system's quality attributes or characteristics. Puranobooks follows properties such as reliability, usability, storage occupancy, performance, and response time.

2.2.3 SYSTEM REQUIREMENT SPECIFICATION

• Should describe functional and non-functional requirements so that they are understandable by system users who don't have detailed technical knowledge. • User requirements are defined using natural language, tables and diagrams.

Software Requirement Specification

· Scripting Languages: html,javascript.

· Styling Language:css.

· Server side Language:php.

· IDE:Visual studio,Xampp

Hardware Requirements Specification

· Processor : Intel core i3 or i5.
· Hard Disk : 250 GB

· Ram : 2 GB

2.3 Feasibility Analysis

A feasibility study is an analysis of how successfully a project can be completed, accounting
for factors that affect it such as economic, technological, legal, and scheduling factors. Project manager use feasibility studies to determine potential positive and negative outcomes of a project investing a considerable amount of time and money into it.

Feasibility studies allow companies to determine and organize all of the necessary details to make business work. A feasibility study helps to identify logistical problems, and nearly all business-related problems, along with the solutions to alleviate them.

Feasibility studies can also lead to the development of marketing strategies that convince investors or a bank that investing in the business is a wise choice.

2.3.1 Economic Feasibility

Economically, the theme PuranoBooks is bound to do well. There is little cost associated for using the system. Hence, the system is economically feasible. If owner needs any supports on this theme then they will be available upon Email Request.

2.3.2 Operational Feasibility

Operational feasibility asks if the system will work when developed and installed. The system is user friendly so the user can use this system more enthusiastically. The following points were taken into account for operational feasibility of the system:

- The system causes no harm.
- The theme is affordable and has low operational cost.

2.3.3 Technical Feasibility

The website must be evaluated from the technical aspect first. The valuation of this feasibility must be based on an outline design of the website requirement having identified an outline system, the investigation must go on to suggest the type of equipment, required method developing the system, of running the system once it has been designed. Technical issues raised during the investigation are:

- Does the necessary technology exist to do what is suggested/assigned?
- Can the system be upgraded if developed?

The theme was designed and developed such that the necessary functions and performances can be achieved using customization. Therefore, the project is feasible and may still be used even with the newer version of same software supporting older versions.

2.3.4 Schedule Feasibility

Schedule feasibility is a measure of how reasonable the project timetable is. So, feasible schedule had been managed through proper time schedule.

S.N	Task Name	Duration
1	Study and Analysis	6 days
2	Theme Design (Layout)	8 days
3	Image Manipulation	5 days
4	Data Entry	4 days
5	Customize section	8 days
6	Testing	4 days
7	Documentation	10 days

Table 3

Fig 1 : Schedule Feasibility Table

CHAPTER 3: SYSTEM DESIGN

3.1 Theme Design Layout

The theme used for our project is trending theme which have good layout format. The theme was developed on our own refering some of the websites.

Fig 2 : Layout of Theme Design

Navigation Bar

Navigation bar is the place where users can go through all the items that are selected from website back-end. Actually, it is a page type of the site. We can create menus .This will bring to the edit menus screen which is divided into two columns. The column on our left has our pages, categories, and custom links tab. The column on the right is where we can add and adjust menu items.

Slider

Slider is the part of website that contains image that continuously changes. In this theme, Slider Revolution plugin is used to define slider with proper front end and back-end tools. Sliders can run slideshows automatically without user input by moving slides on pre-defined time interval. Sliders can also respond to user interaction like click or swipe to view next or previous slides. Additionally, sliders can also have buttons or thumbnails which users can click to view a particular slide in the slider.

Sidebar

Sidebar is the section where recently viewed products, search filter etc. are placed as a shortcut for the content of the site especially for product shop pages. themes to display information that is not a part of the main content. It is not always a vertical column on the side. It can be a horizontal rectangle below or above the content area, footer, header, or anywhere in the file.

Footer

The footer area of a website is usually defined in the template file footer.html. In some themes, the area may also contain a widgetized area with multiple columns that you can use.

CHAPTER 4: TESTING

4.1 Introduction To Testing

Unit Testing:

Unit testing focuses verification effort on the smallest unit of software design that is the module.

Using procedural design description as a guide, important control paths are tested to uncover errors within the boundaries of the module. The unit test is normally white box testing oriented

and the step can be conducted in parallel for multiple modules.

Validation Testing:

At the end of integration testing software is completely assembled as a package. Validation testing is the next stage, which can be defined as successful when the software functions in the

manner reasonably expected by the customer. Reasonable expectations are those defined in the

software requirements specifications. Information contained in those sections form a basis for validation testing approach.

Integration Testing:

Integration testing is a systematic technique for constructing the program structure, while conducting test to uncover errors associated with the interface. The objective is to take unit tested methods and build a program structure that has been dictated by design

4.2 Browser Compatibility Testing

Browser compatibility test is the test done to ensure that site runs on all browsers i.e. chrome, safari etc. these browsers run on different platforms so it is very important ensure that the theme is all platform friendly.

S.N	Test Case	Test Browser	Expected Result	Actual Result	Remarks
1	C1	Google Chrome	Successful	Successful	Pass
2	C2	Opera Mini	Successful	Successful	Pass
3	C3	Safari	Successful	Successful	Pass
4	C4	Mozilla Firefox	Successful	Successful	Pass

Fig 3 : Browser Compatability Testing Table

Responsive Testing

Responsive testing is very important because theme should give majority of the users as they open the site throughout the various devices like laptop, mobiles, tablets etc.

Fig 4 : Responsive Navigation bar

CHAPTER 5: IMPLEMENTATION

5.1 Implementation Tools

Implementation is an activity that is contained throughout the development phase. It is the process of bringing designed system into operational use. The system is tested first and then turned into working system. Every task identified in the design specification is carried out in this phase.

5.1.1 Front End Tools

HTML

HTML known as Hyper Text Mark-up Language, the authoring language used to create documents on the World Wide Web. HTML defines the structure and layout of a Web document by using a variety of tags and attributes. Theme or plugin does exactly what you need it to do, and looks almost exactly how you need it to look. But still, you wish it would look slightly different. For this reason, HTML was used. HTML tags were used in posts, pages, sidebar text widgets to code a hyperlink by hand, or adjust the header sizes.

CSS

CSS stands for Cascading Style Sheets. It describes how HTML elements are to be displayed on screen or in other media. In this project, additional CSS was used when further customization on the site was required. Sometimes, the theme does not work as per the requirement of the user so to meet the requirement of the user additional CSS was used. To add in the icons, to scale the logo properly, change the font size of the specified content, to add a specific callout box, or style just a section of a post differently CSS was used. The theme option does provide certain features but to add the features according to the client's requirement additional CSS was applied.

JAVASCRIPT

JavaScript (sometimes abbreviated JS) is a prototype-based scripting language that is dynamic, weakly typed. JavaScript is a client-side scripting language meaning that JavaScript code is written into an HTML page. When a user requests an HTML page with JavaScript in it, the script is sent to the browser and it's up to the browser to do something with it. It is used to make webpage more interactive, check or modify the contents of forms, change images, open new windows and write dynamic page content.

BOOTSTRAP

Bootstrap is a free and open-source CSS framework directed at responsive, mobile-first front end web development. It contains CSS- and (optionally) JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components. Bootstrap is a web framework that focuses on simplifying the development of informative web pages (as opposed to web apps). The primary purpose of adding it to a web project is to apply Bootstrap's choices of colour, size, font and layout to that project. As such, the primary factor is whether the developers in charge find those choices to their liking. Once added to a project, Bootstrap provides basic style definitions for all HTML elements. In addition, developers can take advantage of CSS classes defined in Bootstrap to further customize the appearance of their contents. For example, Bootstrap has provisioned for light- and dark
coloured tables, page headings, more prominent pull quotes, and text with a highlight.

5.1.2 Back End Tools

XAMPP

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MariaDB database, and interpreters for scripts written in the PHP and Perl programming languages. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible. XAMPP's ease of deployment means a WAMP or LAMP stack can be installed quickly and simply on an operating system by a developer, with the advantage a number of common add-in applications such as WordPress and Joomla! can also be installed with similar ease using Bitnami .

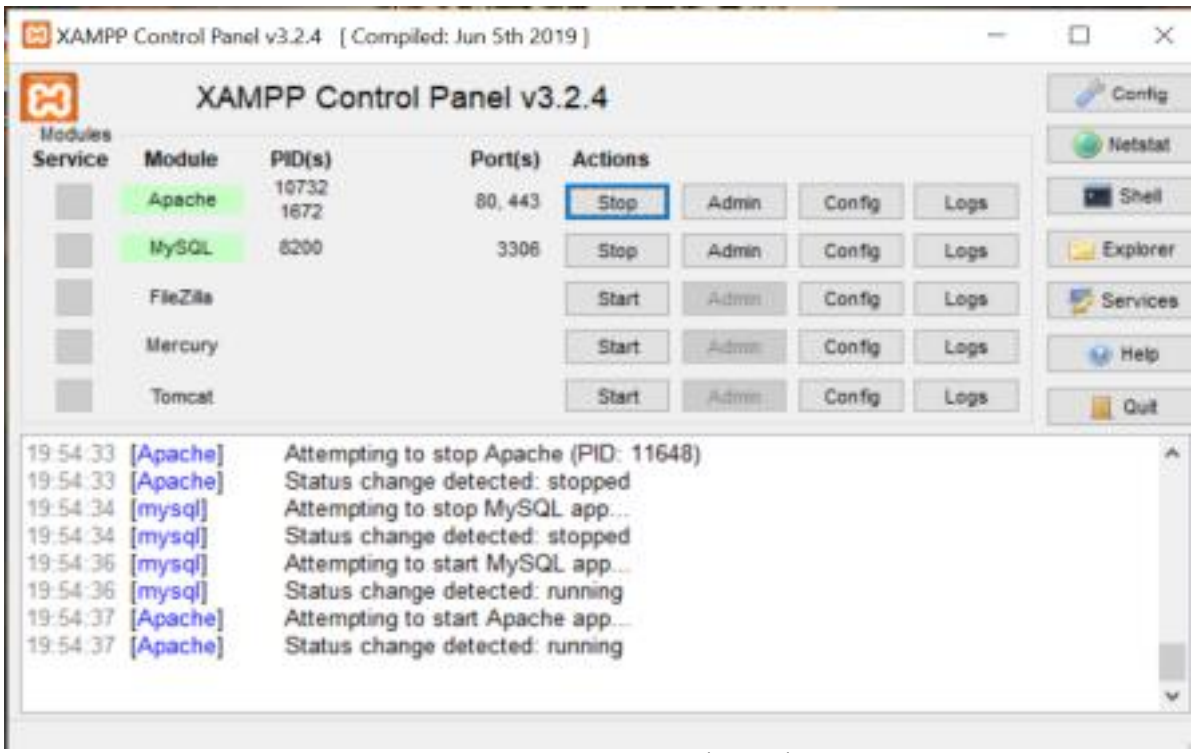


Fig 5 : XAMPP Control Panel

PHP

PHP is an amazing and popular language. It is powerful enough to be at the core of the biggest blogging system on the web. PHP is an acronym for "PHP: Hypertext Pre-processor". PHP is a widely-used, open source scripting language. PHP scripts are executed on the server. PHP is free to download and use.

PHP files can contain text, HTML, CSS, JavaScript, and PHP code. PHP code are executed on the server, and the result is returned to the browser as plain HTML. PHP files have extension “. php".

5.2 SCREEN SHOTS OF OUR WEBSITE: 5.2.1 FRONT END:

NAVIGATION BAR:

Fig 6 : Navigation Bar

FOOTER:

Fig 7: Footer

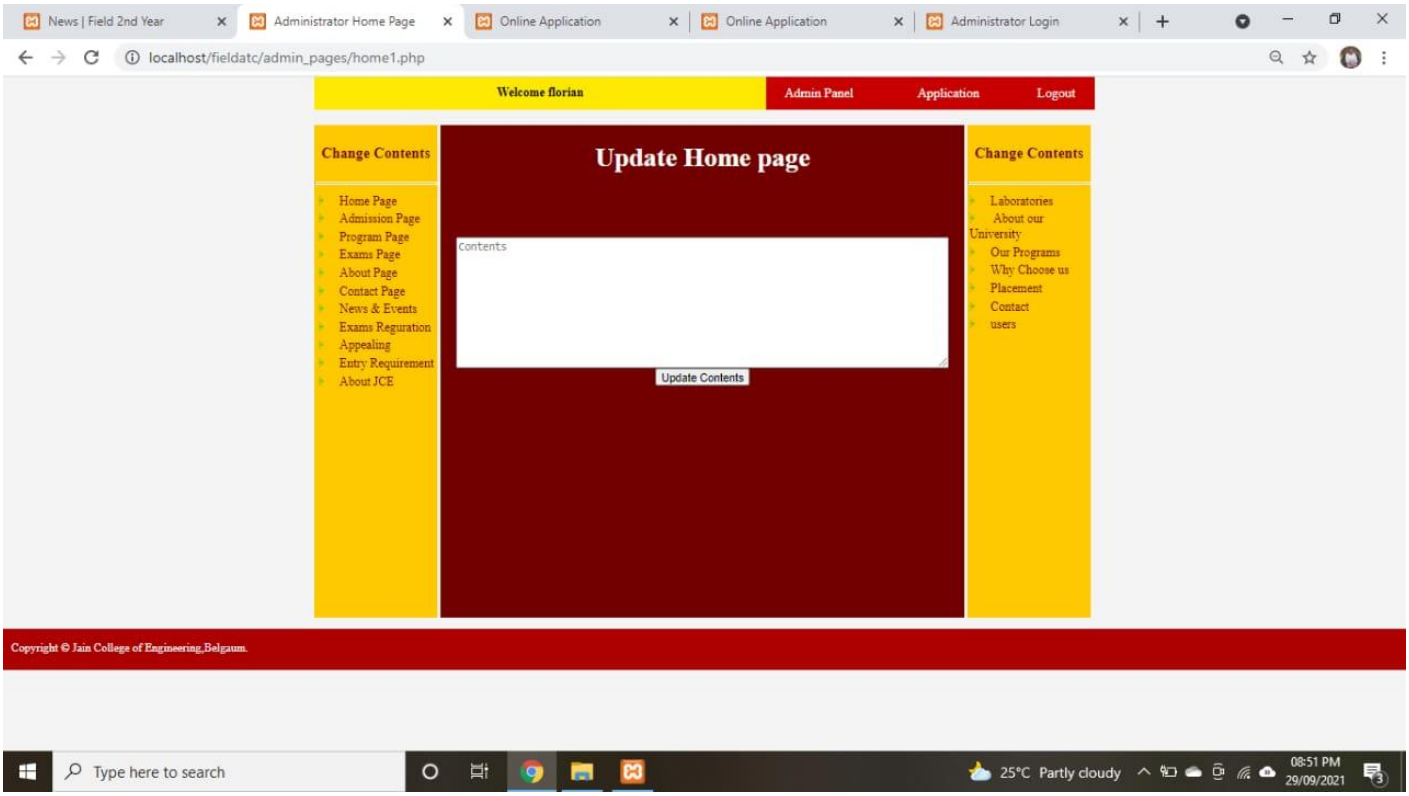


Fig 8 : Home Page

Fig 9 :Contact Us

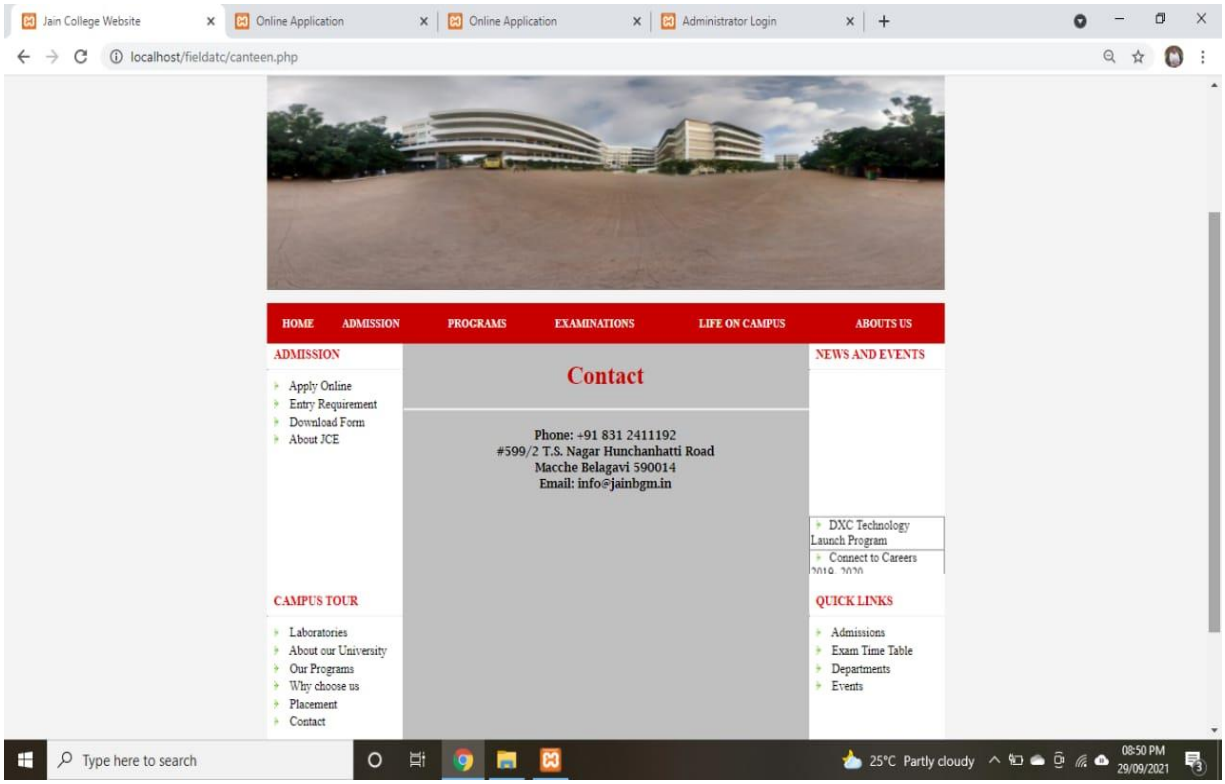


Fig 10 : About Us

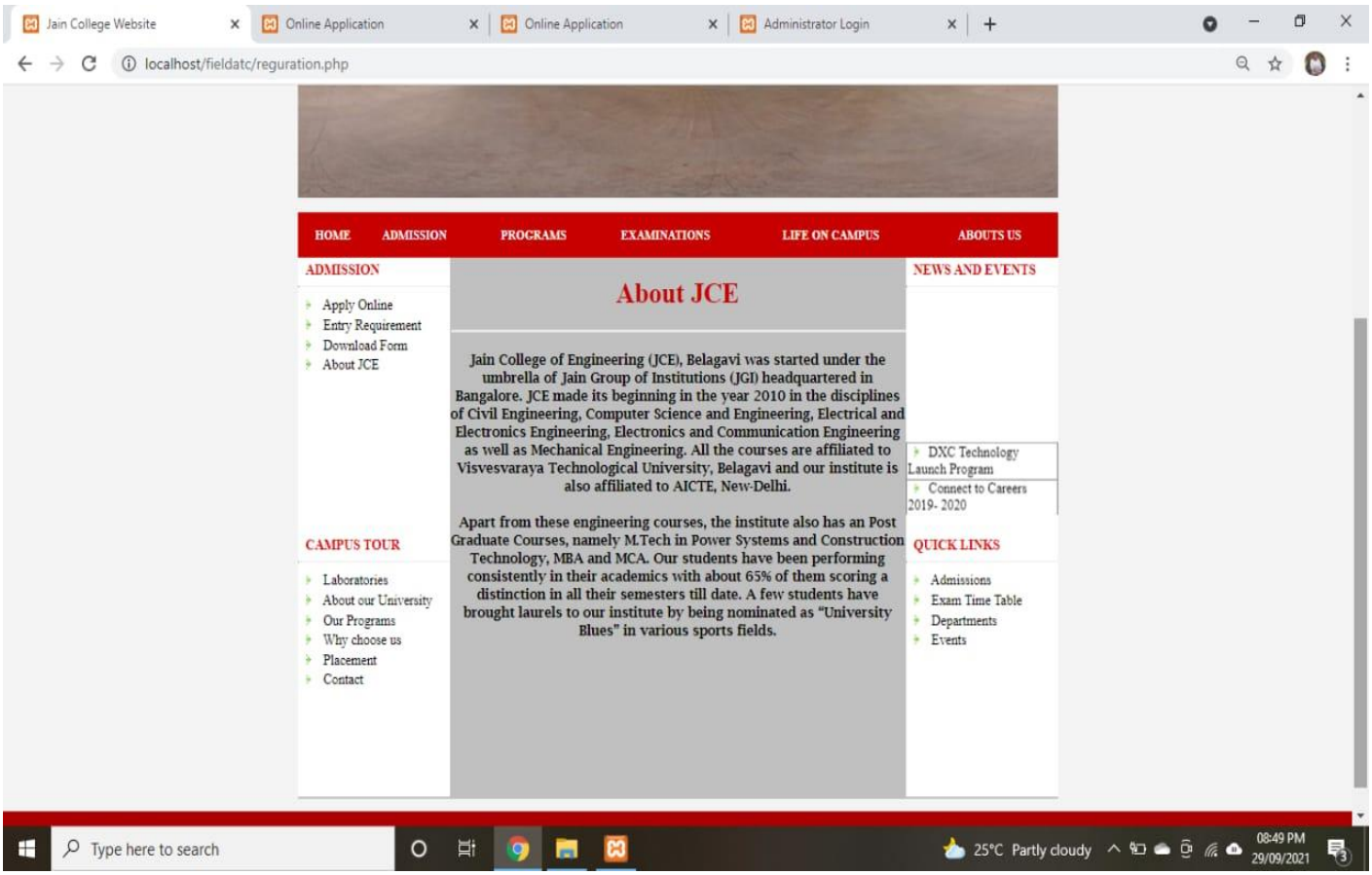


Fig 11 : Departments

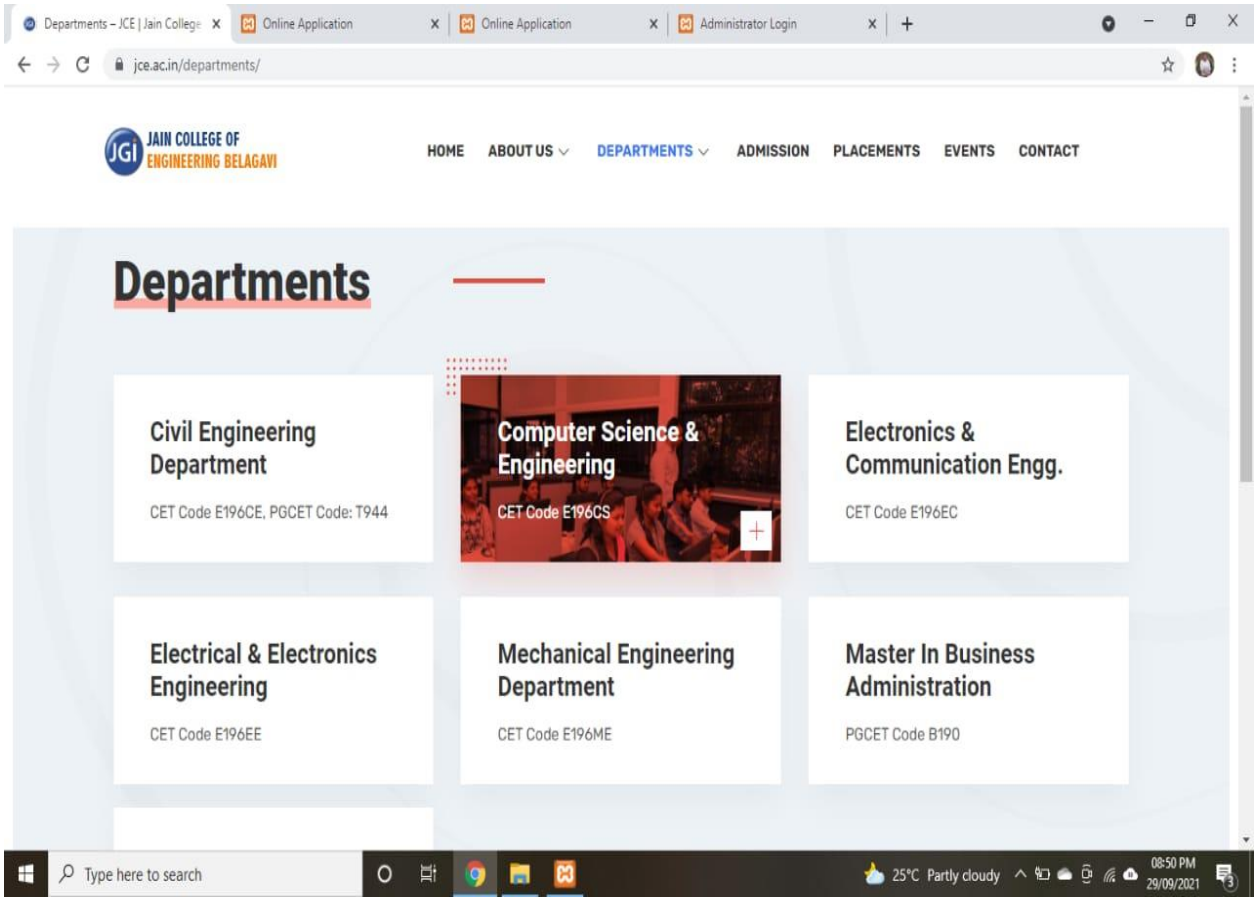


Fig 12: Welcome Page

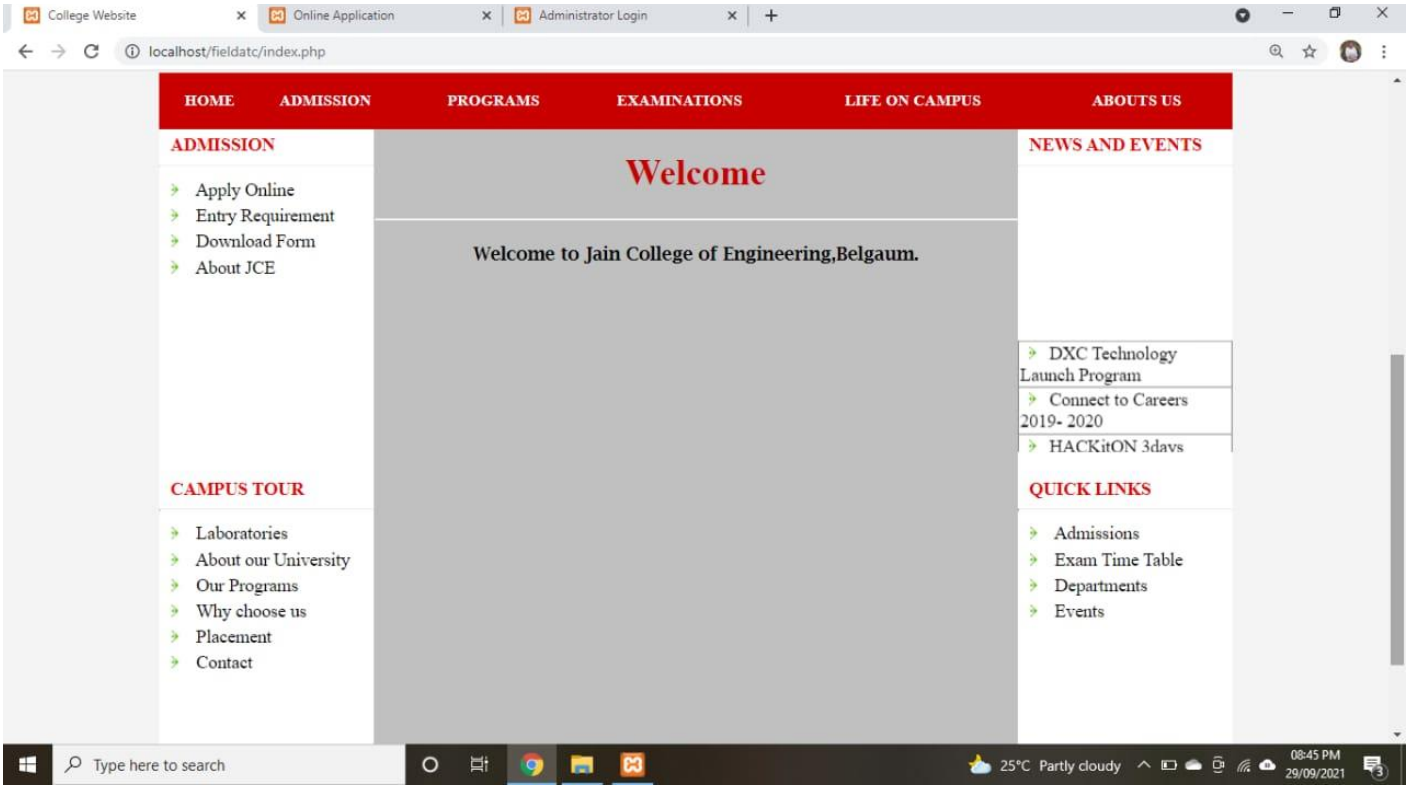


Fig 13: Admission Page

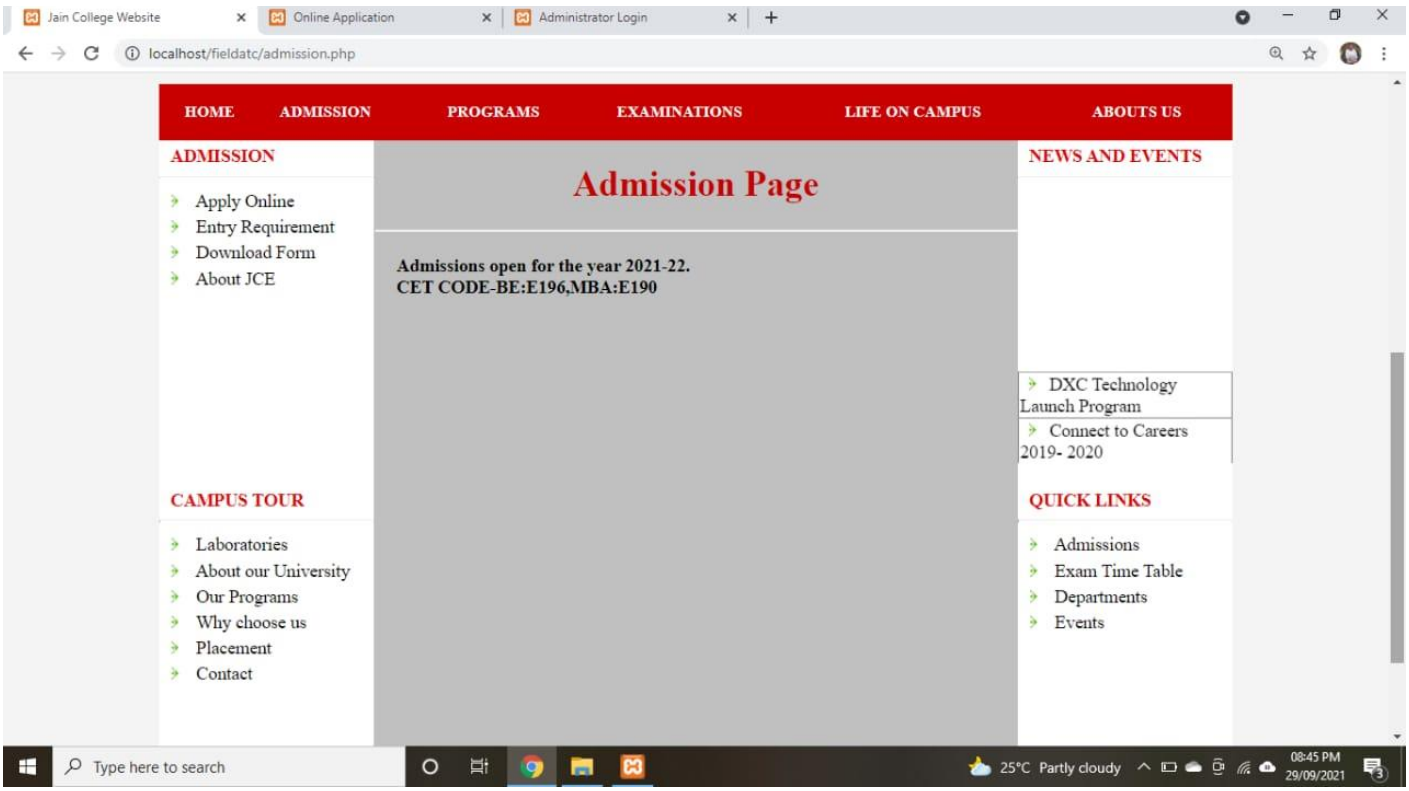


Fig 14: Application Form

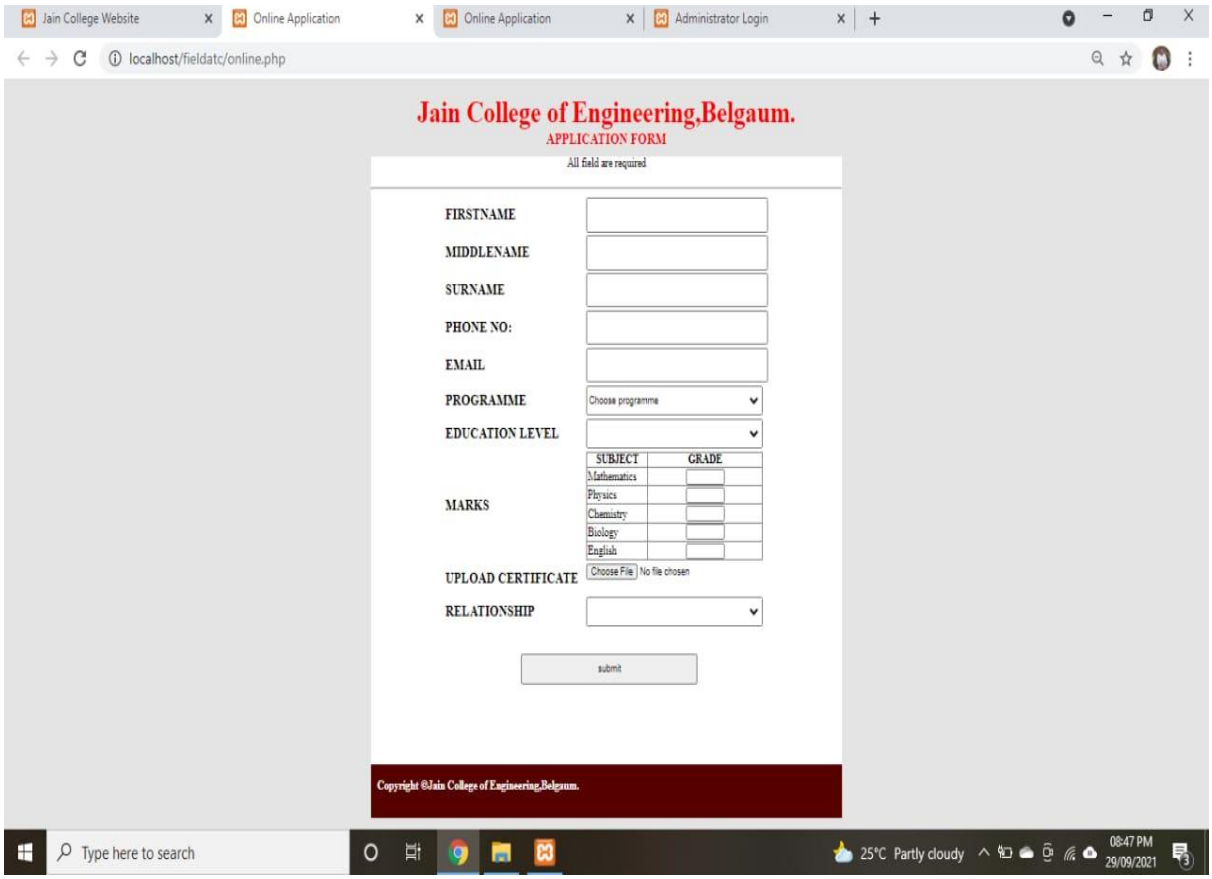


Fig 15 : News Page

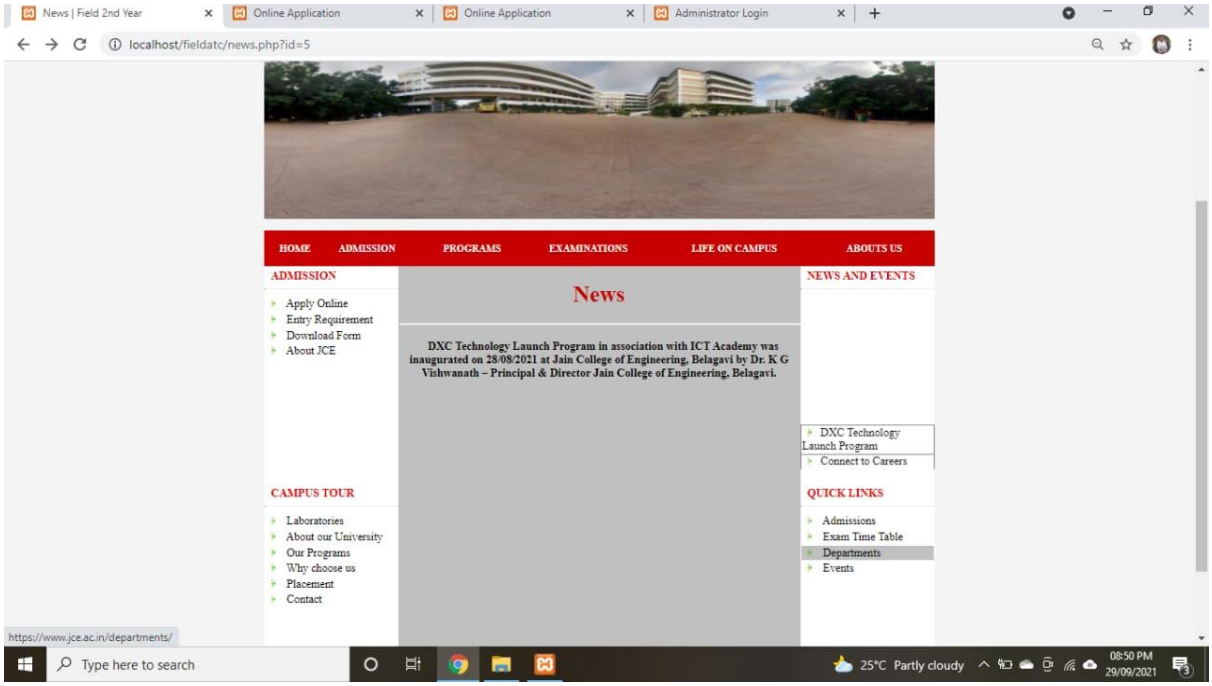


Fig 16 : Examination Page

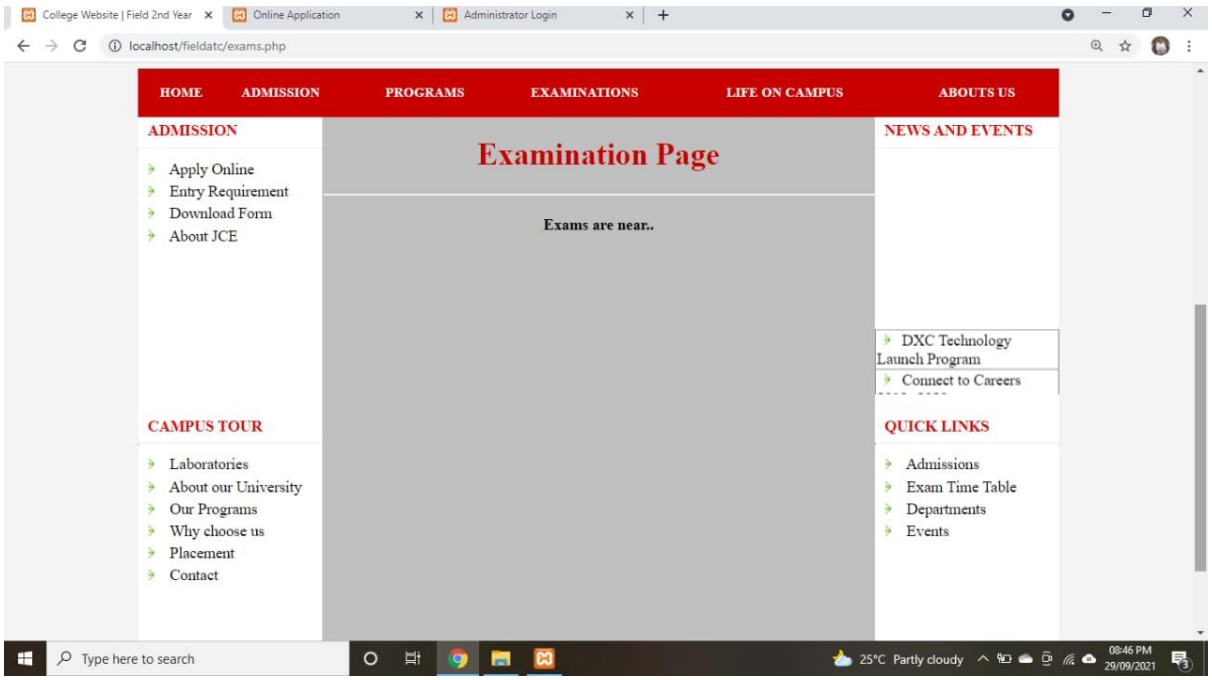


Fig 17:Our Programs

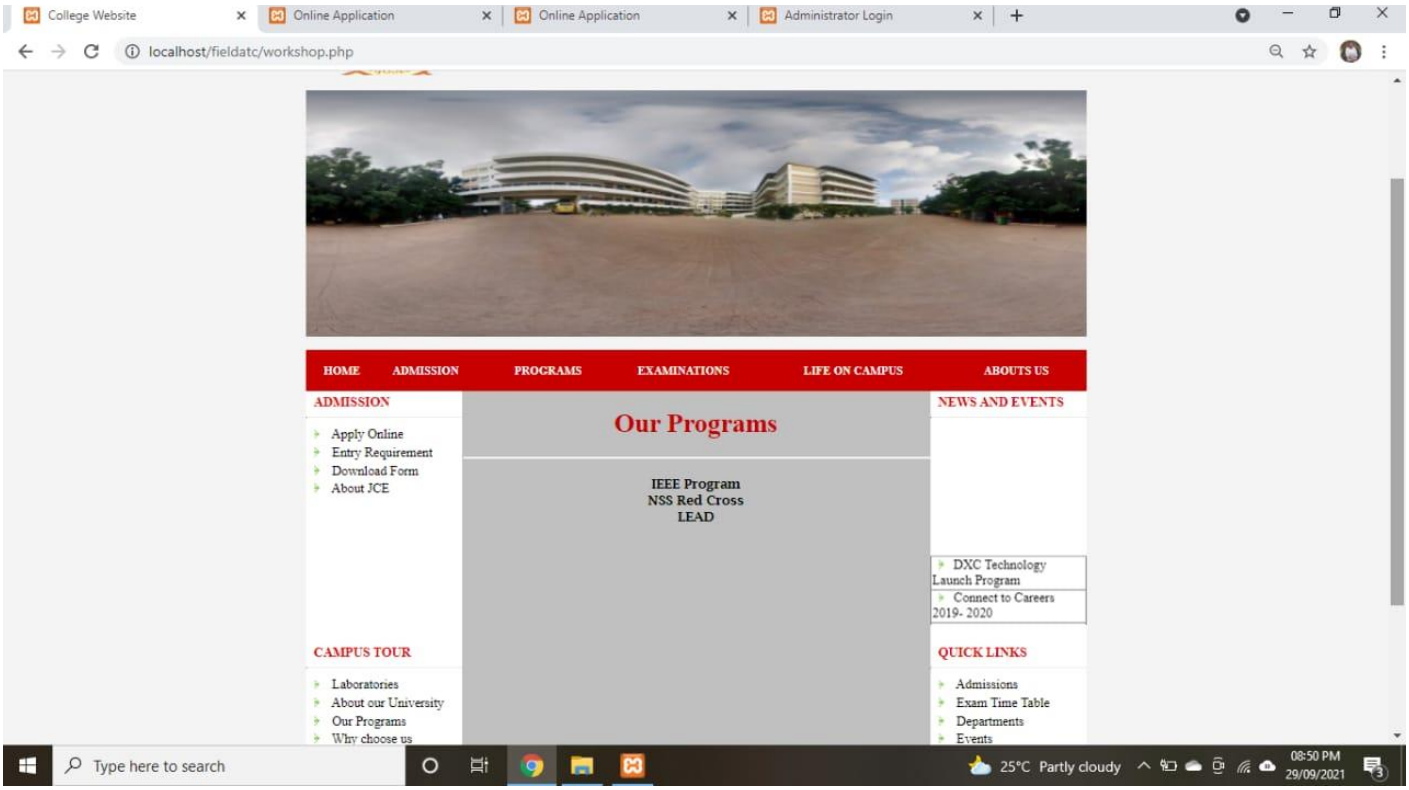


Fig 18: Programs that offers

Fig 19: Why choose us

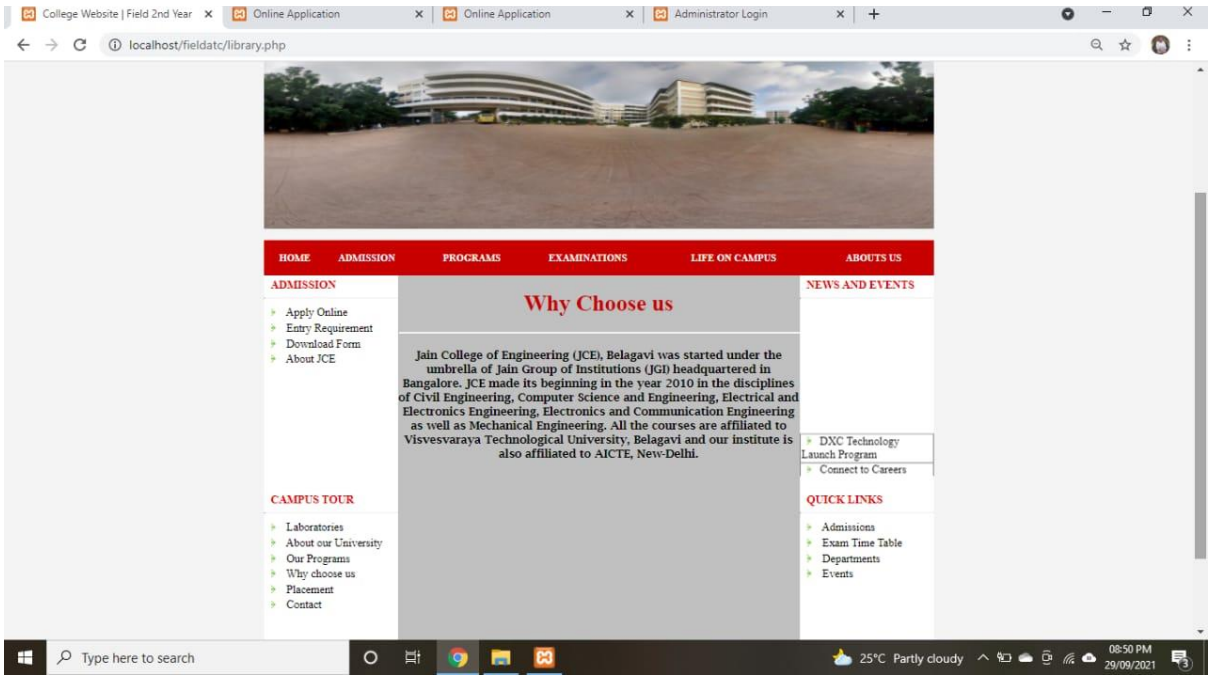


Fig 20:About Campus

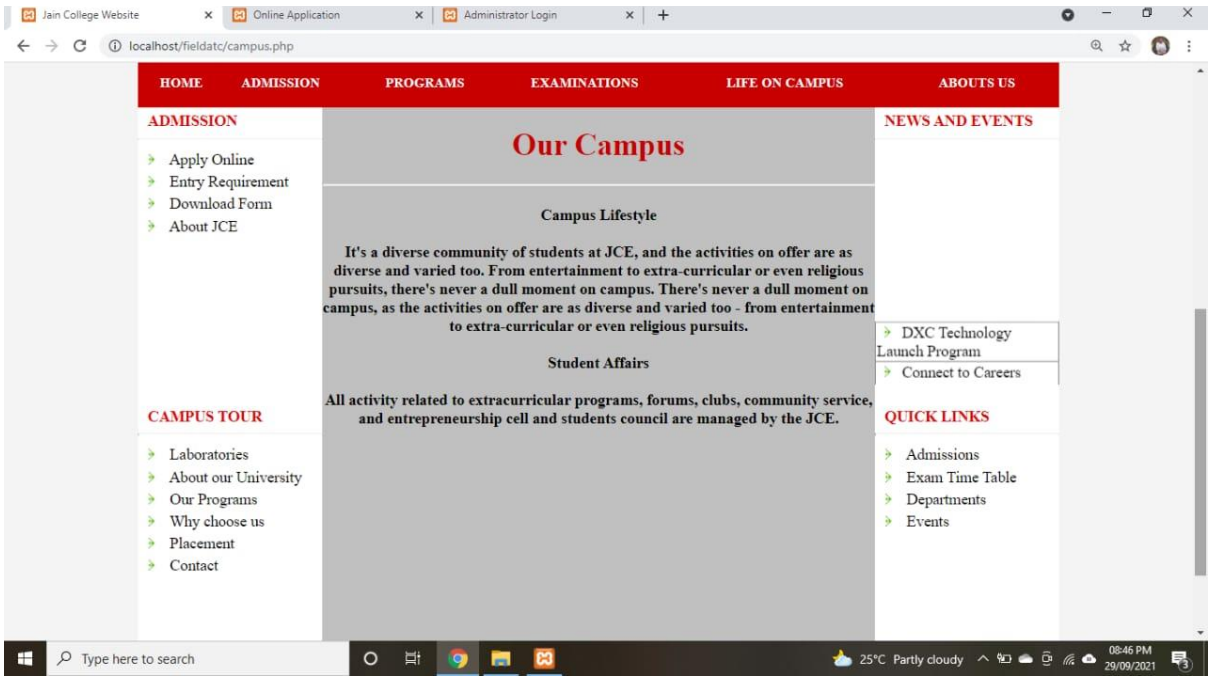
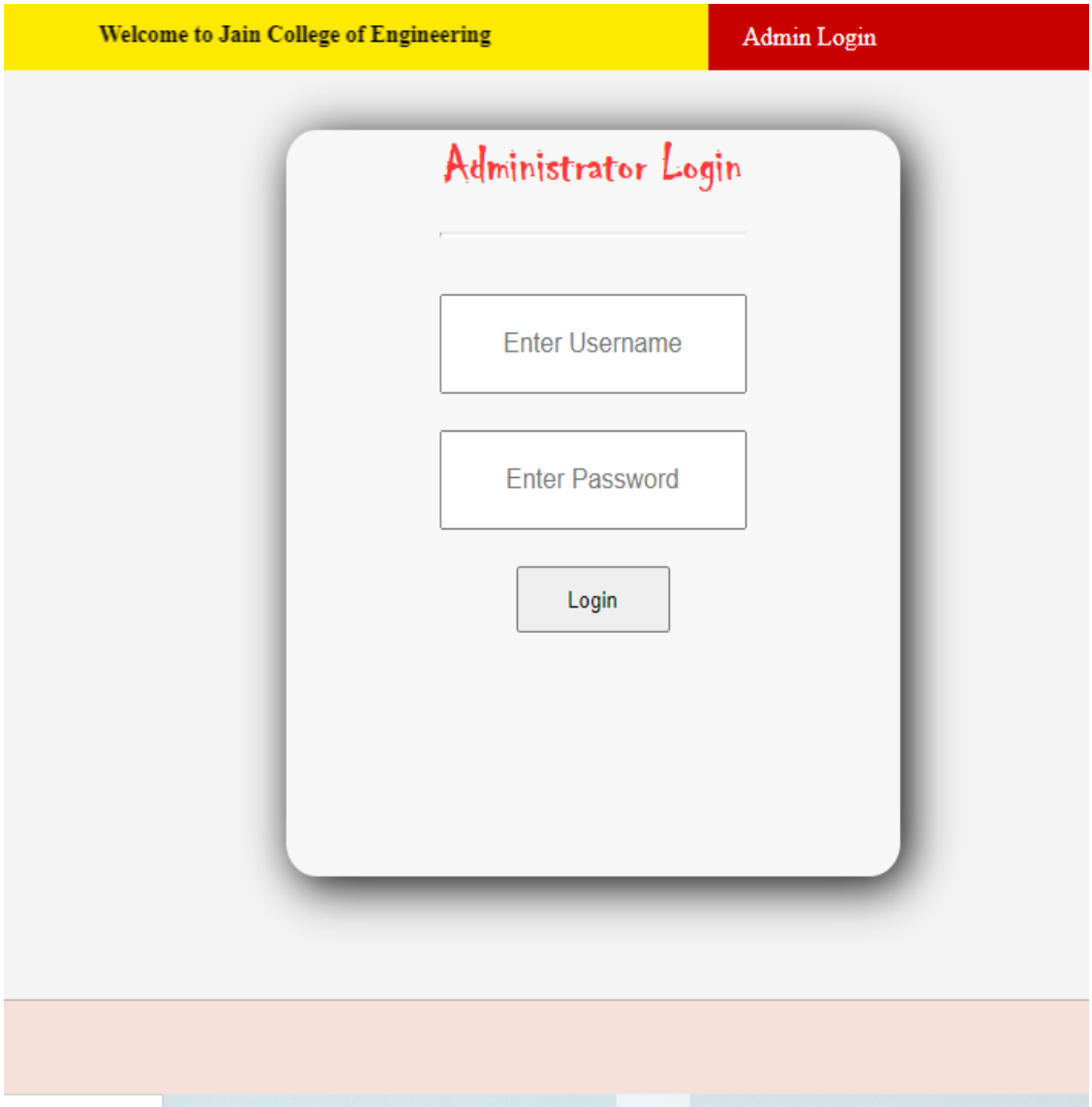


Fig 21 : Admin Login page



BACK END:

Fig 22 : Database using PHP

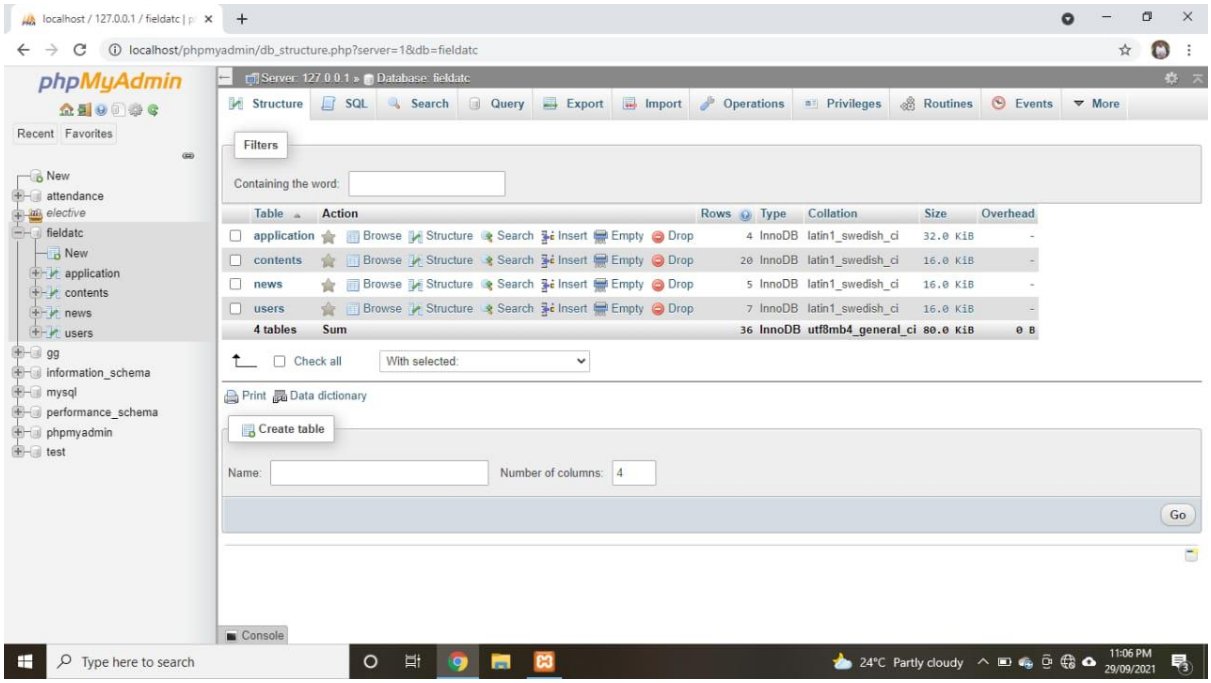


Fig 23: Application Data

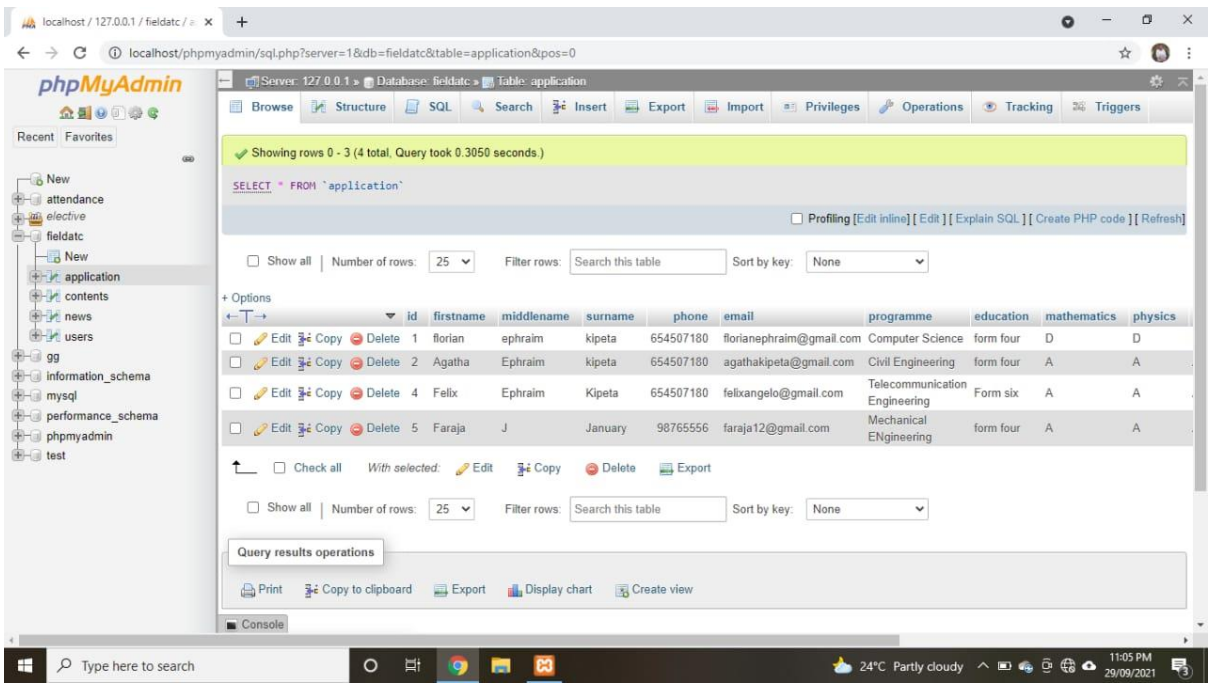
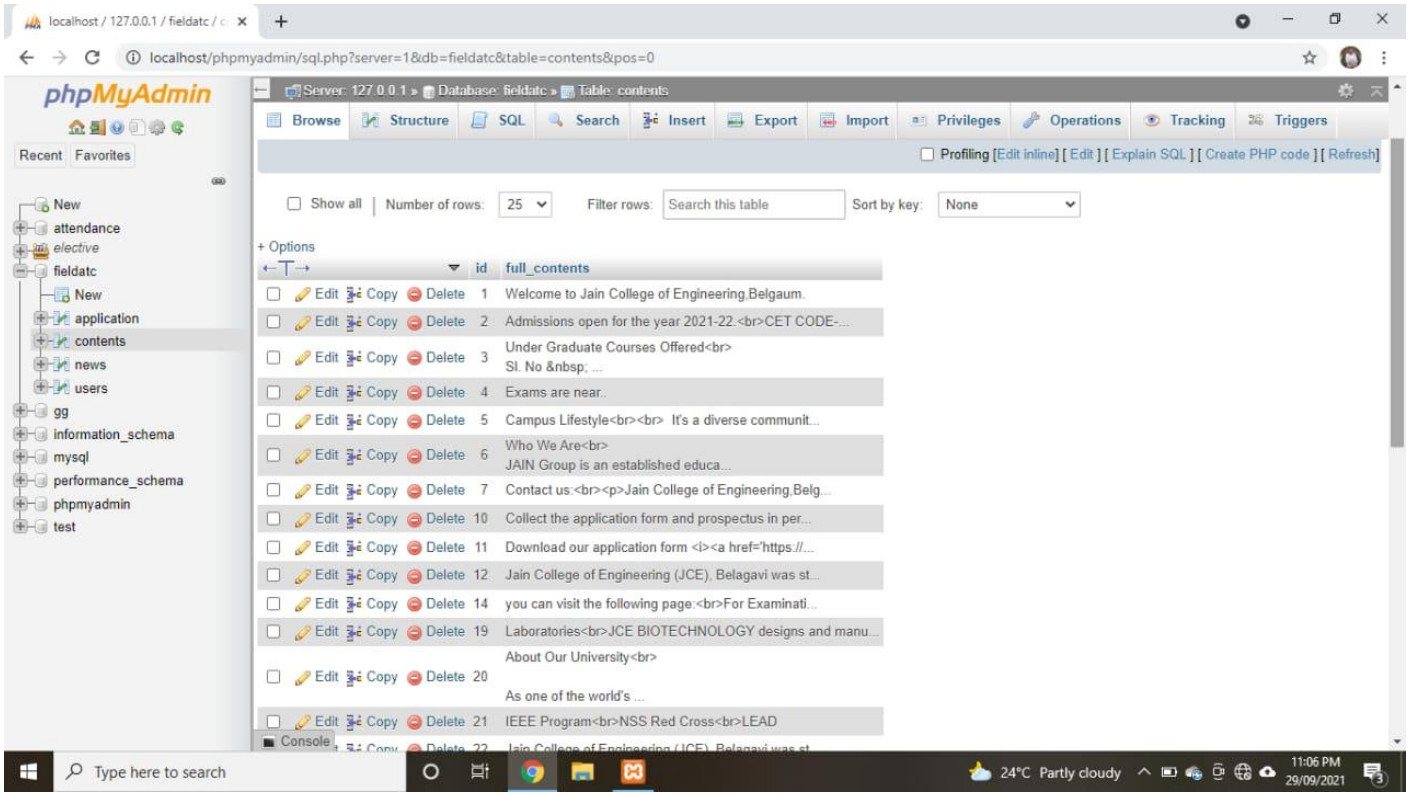


Fig 24: Contents Data



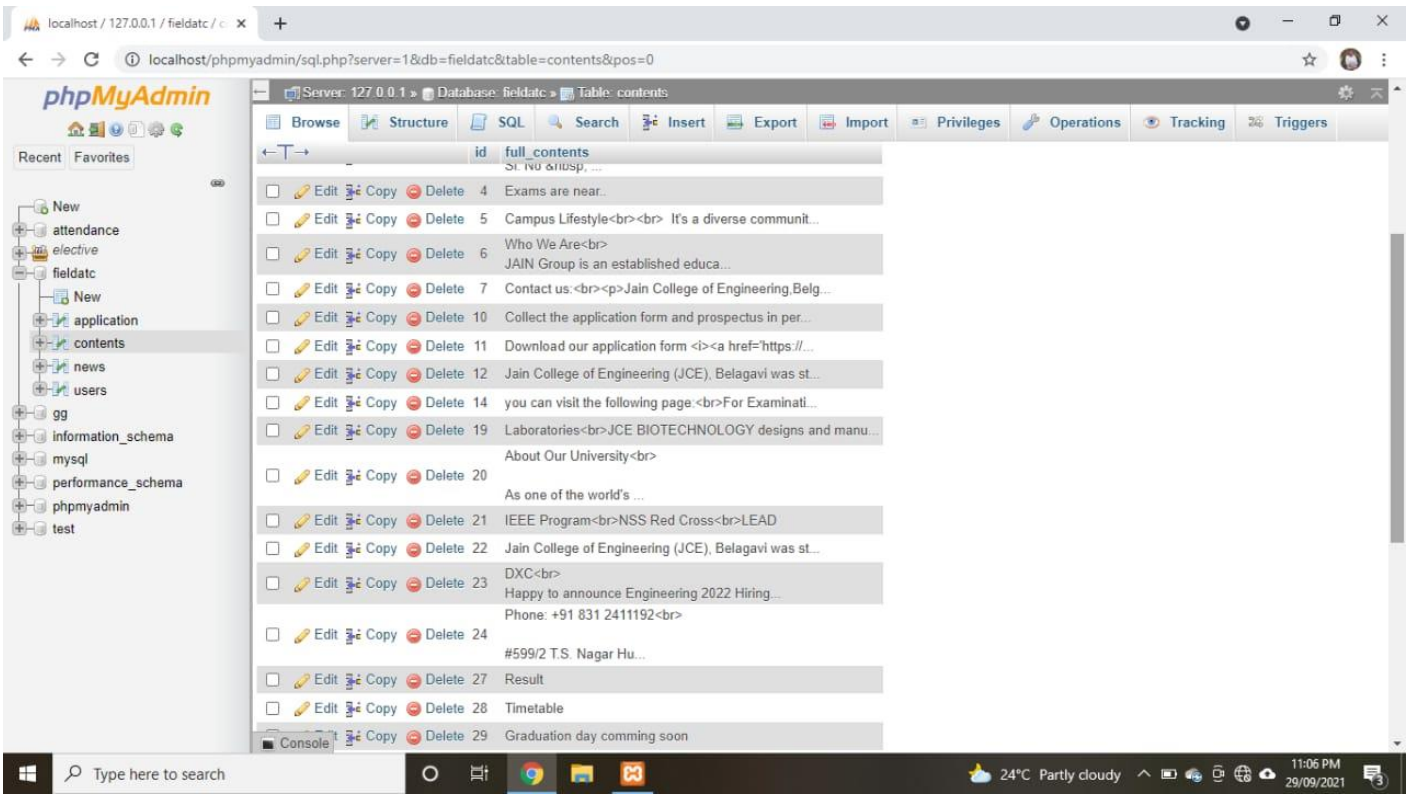


Fig 25: News Data

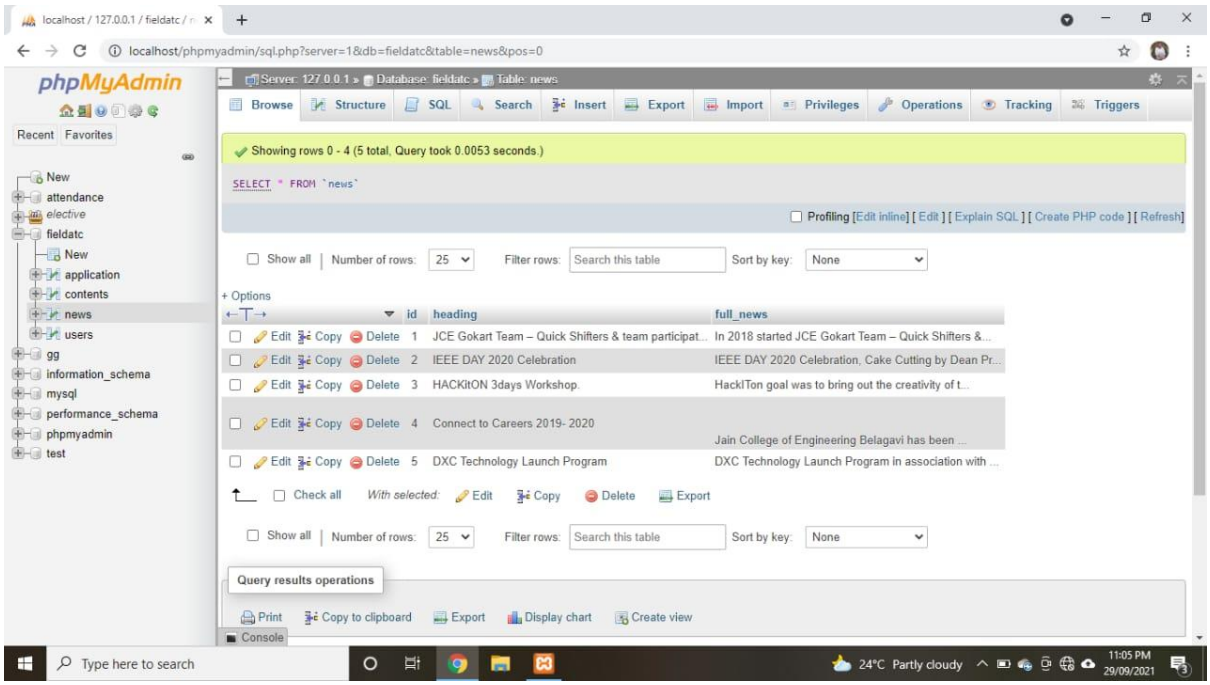
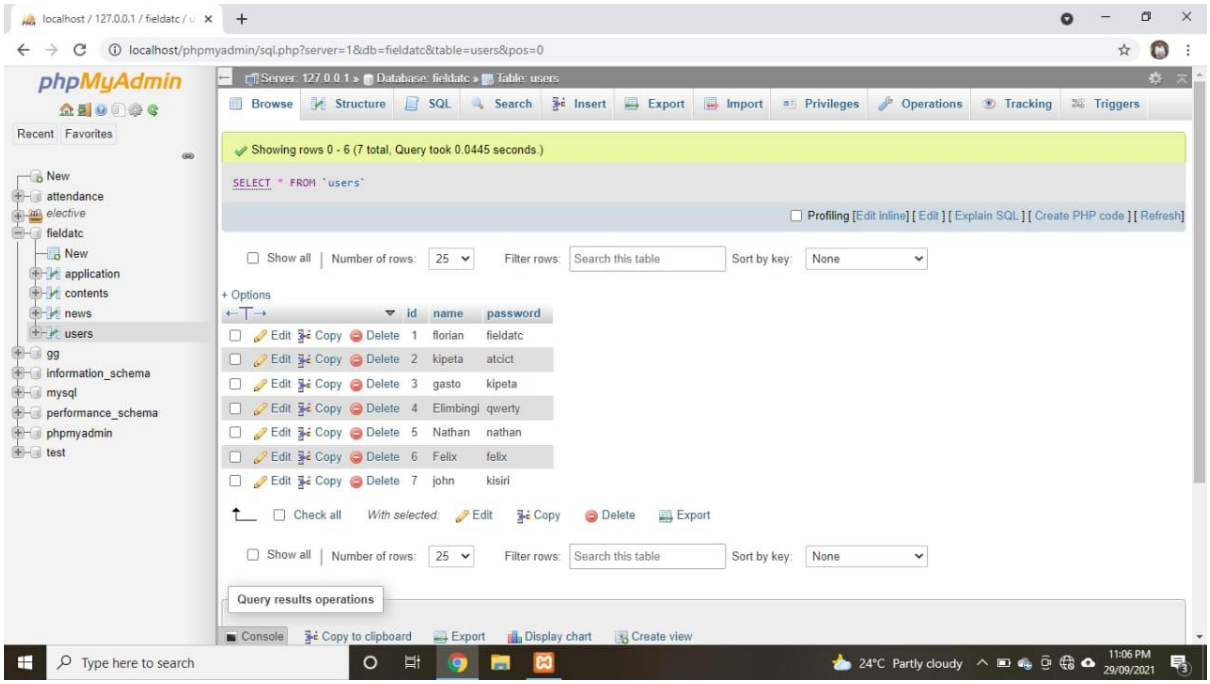


Fig 26: User Data



CHAPTER 6 : CONCLUSIONS

Conclusions

I have learned various types of technologies required for theme, product and layout design. My main focus had been on frontend ans as well as backend development which leads to a Full Stack Web Development. With the help of this internship I have gained significant amount of knowledge I hope it will be helpful for my future carrier.

Making this project was sometime difficult but solving those difficulties gave very valuable knowledge. The team of Puranobooks had always helped me to sharpen my knowledge and to acquire new skills.

Throughout my time of internship, I have acquired lots of new experiences. I got chances to use different development tools, research on them and use them. Overall in this period of internship all my theoretical knowledge gained from college had gained a practical experience.

CHAPTER 7 : REFERENCES

[1] Videos By Tequed Labs Pvt Ltd

[2] A.P.G Brown, "Modelling a real world system and designing a scheme to represent it"

https://technet.microsoft.com/en-us/library/cc505839.aspx

[3] Syed Balkhi Wp Beginner(Dec 24)
http://www.wpbeginner.com/category/wp-tutorials

[4] www.google.com

.

[5] www.W3schools.org.

[6] www.quora.co.in

Work Done by me

The Project title is '**JCE Website**'. At the beginning of our project I made a basic body for the website using HTML and CSS. Then after that I started working on the requirements of the project as finding content for the various specifications made in our college website and also for required images. I worked on the PHP,XAMPP to connect to database.