A REPORT

ON

DU LOCATOR

By

Name of the student   Enrolment No.

NITIN JANGID   **1600121C202**

Prepared in the partial fulfillment of the
Practice School II Course

AT

EXCEL IT SERVICES

A Practice School II Station of

BML MUNJAL UNIVERSITY

(July 2018)

EXCEL IT SERVICES

www.excelitservice.com

CERTIFICATE

This is to certify that project entitled 'DU LOCATOR' has been done by **Mr. Nitin Jangid** student of Computer Science (Btech) from BML Munjal University. He has carried out this project work at **EXCEL IT SERVICES** from **May 21st, 2018** to **14th July,2018** as a part of his dissertation.

During the project internship, I found him sincere and hard working. He understood the problem and implemented it independently. I wish him success in his future endeavors.

(Project Guide)

Date: July 14, 2018

Rakesh Verma

Full Stack Engineer

Excel IT Services, Palwal-121102

Excel IT Services
PALWAL

2. CERTIFICATE

This is to certify that Practice School Project of <u>Mr. Nitin Jangid</u> titled "<u>DU Locator</u>" is an original work and that this work has not been submitted anywhere in any form. Indebtedness to other works/publications has been duly acknowledged at relevant places. The project work was carried during <u>21/05/2018 to 14/07/2018</u> in <u>EXCEL IT SERVICES, Palwal-121102</u> under my supervision.

(Poonam Sangwan)
Faculty Mentor
CSE department

(Rakesh Verma)
Full-Stack Engineer
Excel IT Services

3. BML MUNJAL UNIVERSITY
PRACTICE SCHOOL – II
JOINING REPORT

Date: 21/05/2018 to 14/07/2018

Name of the Student	Nitin Jangid
Name and Address of the Practice School – II Station	Excel IT Services **1st Floor, Dharam Plaza, near Shiv Colony, Railway Road, Palwal, Haryana 121102**
Location of the Project	Palwal-121102
Name and Designation of the Industry Guide/ Industry Mentor for the Project	Name – Rakesh Verma Designation- Full-Stack Engineer
Organization Contact No.	**9991252252**
Organization E-mail Address	info@excelitservice.com

DU Locator

4. Acknowledgement

It has been a great experience for me working with Excel IT Services, an emerging startup company in the area web development.
I would like to thank my university, BML Munjal University, for providing to me such an opportunity of participating in the summer internship at Excel IT Services.
I would also like to express my gratitude to all the people who aided me in my internship, including the Dean of SOET, the vice chancellor of the university, the coordinator of the ps2 program. I would like to express my special thanks of gratitude to my Industry Mentor Mr. Rakesh Verma who gave me the golden opportunity to do this wonderful project on the topic (DU Locator). He always added new insights and gave inputs for completion of my projects. I would also like to thank him for sharing his expertise and knowledge with me.

I wish to thank my Faculty Mentor, Ms Poonam Sangwan for motivating me throughout the duration to complete the projects in time.
I would also like to thank my parents for supporting me throughout this timeframe.

DU Locator

5. Abstract

DU Locator is an comprehensive Web application designed for students who are looking for taking admission in Delhi University. This web-site showcases information about the latest as well as previous year cut-offs of colleges and departments under DU which might be helpful for students in deciding their imminent college. It also has information about the Lively spots, nearby metro-stations and all the updates about the happening events of DU. As the cut-offs of colleges are confidential data so it is important to ensure the safety of information of the individual college, one of the important concern is security of their data because any flaw can lead to misguide student future, many methods was done to maintain security and integrity. Data will be allowed to access only in read mode at runtime only. Any transformation in colleges data can be made only through permission of concerned authority to ensure data safety.

6. Table of Contents

DU Locator

7. Organization's Business Sector

Excel IT Services, Palwal, is an emerging startup offer various IT integrated services under following three broad categories with a motto of looking for long term mutual growth ensuring trust and relationship with their clients and business partners. This industry always tries to create decent product for the clients by providing quality solution to various business functions. Excel IT brings good experience in IT industry, customer service, and global operations by frequently merging their tactical thinking with the best in expertise, people, and process. Excel IT Services is a leading website development company offers website development, software development, SEO services, Digital Marketing, Software Quality Testing.

The work done by them are:
- *Websites, Logos, Design*
- *App Development*
- *Software Development*
- *Analytic and tech Consulting*

8. Overview of the organization

EXCEL IT SERVICES is an emerging start-up in the field of in information technology, customer service, and global operations by continually combining their strategic thinking with the best in technology, people, and process, which was established in the year 2016.It is in the city of Palwal, Haryana**.**

8.1. History

Initially in 2016 excel IT Services was intended to provide only software-based products to **product-based** companies, but as the demand of apps and websites increased in market, they hired a bunch of proficient coders and developers to provide better stable solution. They blend technology and creativity to give customer a customized solution and great value for money.

Excel IT Services is known for his best customer satisfaction by providing cost effective and reliable solutions as per the specified requirements given by the customers. They have maintained a team of graphic and UI experts who are well versed in creating unique layout that further matched with the clients branding requirements.

DU Locator

8.2. Departments

Software Development Department

Excel IT Services brings a solution to their clients one of the most endorsed application development services acclaimed for its custom application, relaxed deployment facility, security constraints, and reliable services.

Building Software is not an easy task, this will consider various steps such as planning, designing, coding, testing. Innovative techniques and procedures are required to develop a flexible & compatible Software that always facility all continuing operations in any organization. Everyone had their own applications that help the entire business in facing crucial IT challenges.

Web-Site Development Department

Excel IT Services is known for the one stop solution indulged in providing cost effective and unfailing solutions as per the itemized requirements given by the customers. An interactive website is the one considered with gorgeous graphics, decent animations, tariffs and SEO friendly content for its services & products. Leveraging our years of experience in this domain, they have been able to extract separate, intelligible and ground-breaking web application services to their clients. They have maintained a team of graphic as well as UI experts who are well versed in creating exclusive layout that further matched with the clients' branding requirements.

This department bring for all industries their web design & development services that are ascribed for their interactive decent animations, visuals, exclusive web pages, flash logo, reflex back-end processing and improved admin management. People seeking to improve the web status or presence of their business are free to avail their value-added services of website designing & development as per their detailed custom specifications and also within committed time frames.

Digital Marketing Department

In this department there is a group of seasoned people who motivate people that why their business needs digital marketing. They put advertisements of their business logos on reputed websites and connection of ads-sense with google has been done on this department only.

Human Recourse Department

HR Department are responsible for new recruitment, job safety, employee relations, training development. Human resources managers make plans, direct and manages the executive functions of an organization.

- Process Paperwork
- Hire or refer qualified candidates
- Taking Interviews
- Consult with Employees
- Managing different activities in organization
- Salary distribution

9. Plan of Internship Programme

I was appointed as Full-Stack engineer under my industry mentor Mr. Rakesh Verma. After being familiar with the department members, I were briefed on my project which was a Web-based application whose main objective was to display the cut-off lists of Delhi University and other stuff which will be helpful for the students who are seeking admission in Delhi University.

After getting a clear picture of the functions of the application the pen paper design of the application was designed to induce simplicity and provide a kick start to the development phase. We were asked to create timelines and follow to them firmly.

My internship period was from 21st May ,2018 to 14th July ,2018.

As the interns are provided with individual projects as well as in groups, but I was working on this project all alone, as the day gets complete my supervisors test application and guide me through this. I was solely responsible for the complete development of the DU Locator. I was responsible for the entire coding process, but data collection all along provided by our supervisor only. I was also responsible for coming up with a method to ensure that the security of the data.

The project I was assigned by my industry mentor was a DU Locator, basically this is our client project, they assigned me this project only after examining my skills, that was a web-application that would load in data from an external file.
I was responsible for making the design which is further approver by our client.

10. Background and description of the problem

Every year thousands of students wants to take admission in Delhi University. Based on the admission application when the cut-offs get released, a lot of muddle is created as the DU website crashes due to heavy traffic. This creates a big problem.

The students of DU who are not from Delhi or nearby places, they face problems like
1) Availability of public transport
2) Nearby recreational spots etc.
There is no convenient source to get information about the events happening in various colleges of DU.
The project was focused on providing the solutions to these problems which was demand of our client.

Before starting with the application, the front end and UI part of the app's and the backend server-side scripting and database management was all decided, and I chose to work on node JS.

As per requirements, the final application must provide the following functionalities:
- The viewing of latest and well as previous year cut-off lists.
- Listing recreational places nearby a specific college on map.
- Metro and bus stations nearby a particular college.
- College info and contact of all colleges.
- Parallax Imaging
- Couple of Jumbotrons inside Container
- Registration and Login Page
- College Information Page
- Latest news and Feed
- Thumbnail of all college List
- Authentication server
- Serial-wise Cut off Page
- Public Transport Page
- Lively Spots Page
- Query form page
- Search functionality
- About Page

DU Locator

11. Main Text

The design of the application was kept simple to make the application easy to use and to emphasize on the proficiency and straightforwardness of the User Interface.

11.1 Project Methodology

The development of project was divided into 3 parts-
1) Planning
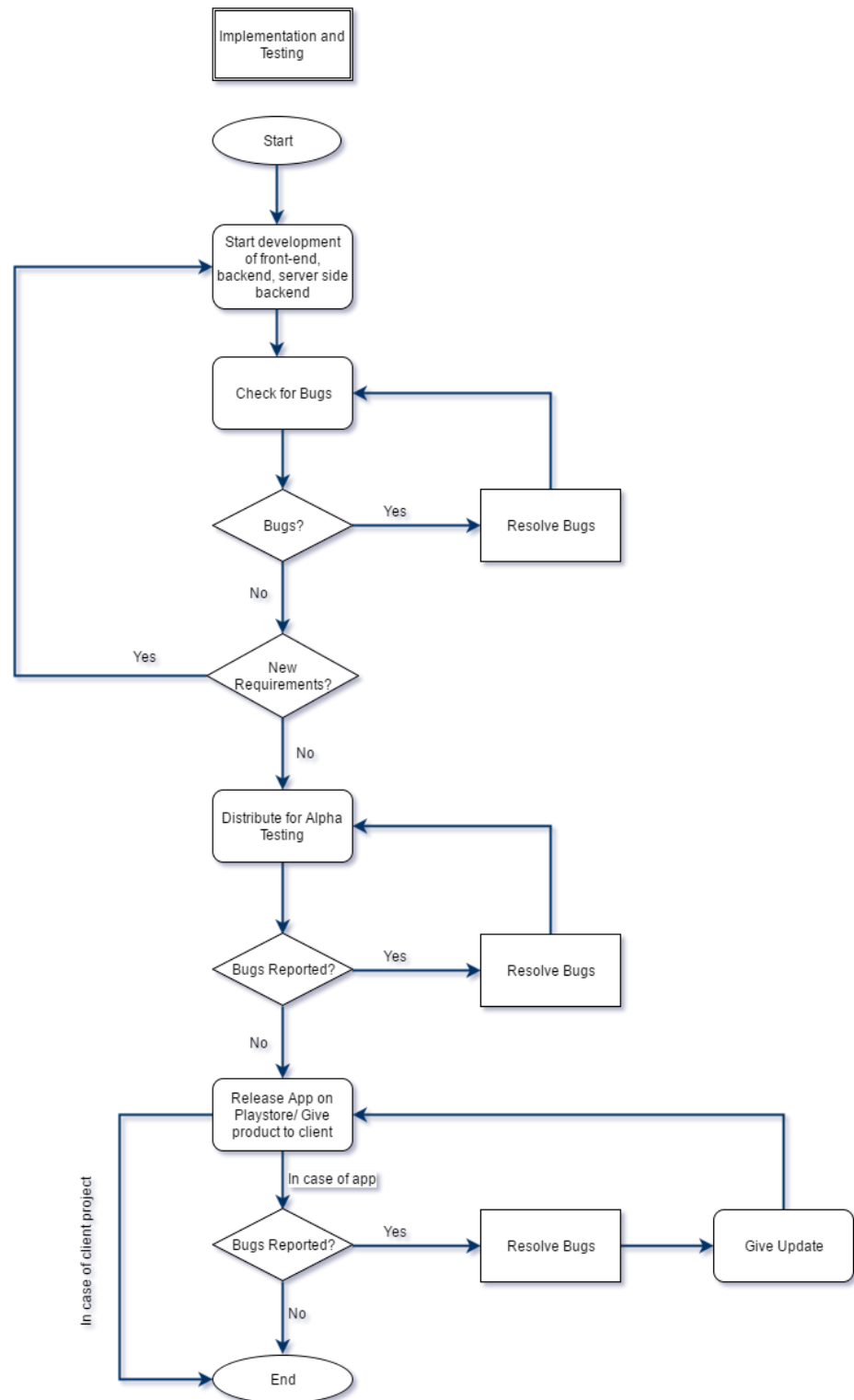2) Implementing
3) Testing
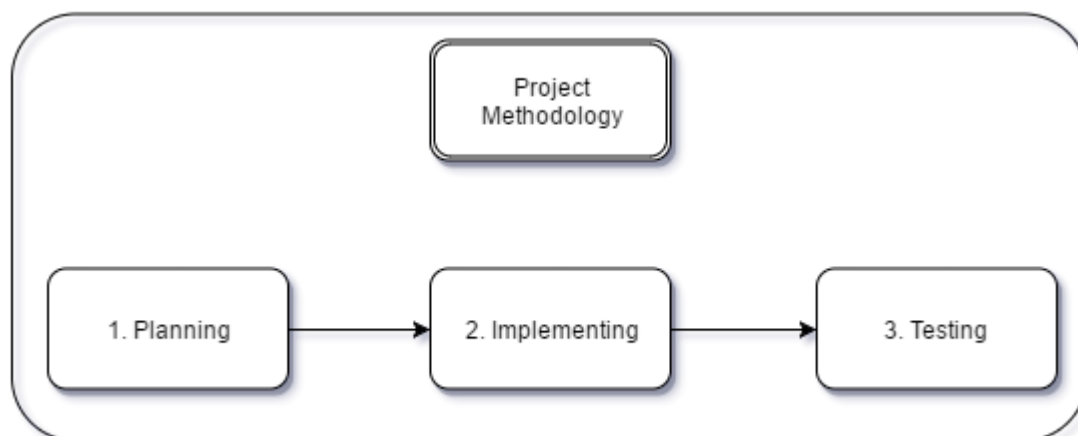
11.4.1.1 Image project methodology

❖ Each part is explained in the following pages:

- PLANNING


```
                    ┌──────────────┐
                    │   Planning   │
                    └──────────────┘
                          │
                    (  Start  )
                          │
              ┌───────────────────────┐
              │  Receive project      │
              │  documentation from   │
              │  industrial mentor or │
              │  client               │
              └───────────────────────┘
                          │
              ┌───────────────────────┐
              │  Analyse project      │
              │  documentation        │
              └───────────────────────┘
                          │
              ┌───────────────────────┐
              │  Check for obscurities│
              └───────────────────────┘
                          │
                    ◇ Obscurities found?

  Discuss the obscurities with industrial mentor and/or client
  Remove the obscurities

              ┌───────────────────────┐
              │  Brainstorm project   │
              │  design with team     │
              └───────────────────────┘
                          │
              ┌───────────────────────┐
              │  Create mock ups of   │
              │  project design       │
              └───────────────────────┘
                          │
              ┌───────────────────────┐
              │  Share mock ups with  │
              │  industrial mentor    │
              │  and/or client        │
              └───────────────────────┘
                          │
                    ◇ Design Passed?

  Make changes to design mock ups as per requirements

                    (  End  )
```

11.4.1.2 Image showing planning of project

DU Locator

- Implementing and testing

11.4.1.3 Image showing implementing and testing

DU Locator

11.2 Collecting data

- Conversion of the colleges data and the cut-off list of colleges provided to me in PDF format to a database supported format i.e. CSV. Uploading of these CSV files to a database of the app present on the Excel IT Server.
- Writing PHP API's to retrieve this data from the server for the application.

11.3 Project Design (Front-End)

I were allocated with a task to make an web application for Delhi university I to facilitate the students who are seeking admission. Raw Implementation of UI on the paper. Then proper timeline of app has been created

- Here is the proper front-end Design in HTML5 and CSS

```
<% include  partials/header.ejs %>
<% include  partials/navbar.ejs %>

        <div id="header" style="margin-left:11%">
                            <div id="content">
                <h1 >Latest And Previous Year Cut-Off Lists</h1>
                <h3>With nearby a specific college on map</h3>
            <hr width="50%" >
<button class="btn btn-warning btn-lg">  Find cut-off by colleges</button>
                                            <p>
                <form action="/home" method="GET" class="form-inline">
                  <div class="form-group">
                    <input type="text" name="search" placeholder="Colleges search..."
class="form-control">
                    <input type="submit" value="Search" class="btn btn-default">
                  </div>
                </form>
              </p>
          </div>
        </div>

    <div class="parallex"></div>
```

```
<div class="container" style="margin-top:20px">
     <div  class="jumbotron">
        <P style="color: Black;font-size:40px ;font-family: "Times New Roman", Times, serif;">
Here Are the list of DU Colleges Where you can find the cutoff-lists and nearby recreaction
spots </P>
  </div>
  </div>




  <div class="container">
        <div class="row text-center" style="display:flex; flex-wrap: wrap;">
  <% blogs.forEach(function(blog){ %>
    <div class="col-md-3 col-sm-6">
        <div class="thumbnail">
          <img src="<%= blog.logo %>">

          <p>
               <h4><%= blog.name %></h4>
            <a href="/home/<%= blog._id %>" class="btn btn-primary">More Info</a>

          </p>
        </div>
     </div>
   <% }); %>
</div></div>

  </div>


               <% include  partials/footer.ejs %>
```
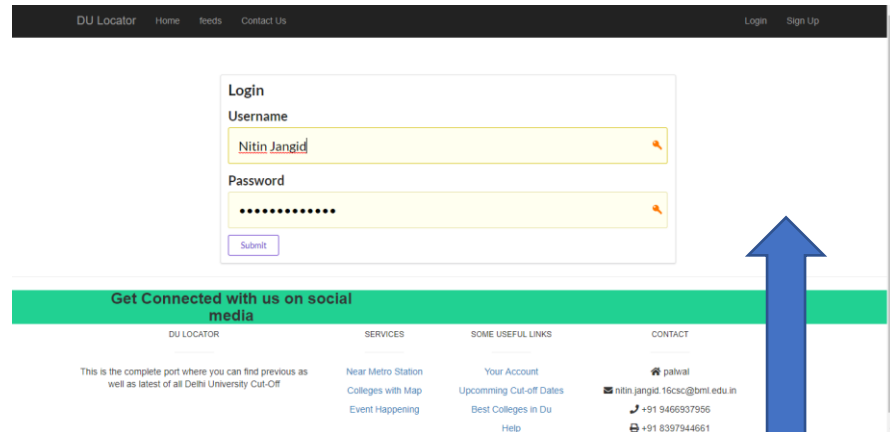
- The command for opening many nested files including navbar, header and footer

1. *<% include partials/header.ejs %>*

```
<!DOCTYPE html>
<html>
<head>
        <title>DU Locator</title>

        <meta name="viewport" content="width=device-width, initial-scale=1">

<link rel="stylesheet" type="text/css" href="finalproject.css">
 <link  rel="stylesheet" type="text/css" href="https://cdnjs.cloudflare.com/ajax/libs/semantic-ui/2.1.4/semantic.min.css">
<link rel="stylesheet" type="text/css" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.5/css/bootstrap.min.css">
<link rel="stylesheet" type="text/css" href="https://maxcdn.bootstrapcdn.com/font-awesome/4.4.0/css/font-awesome.min.css">
<link rel="stylesheet" href="https://use.fontawesome.com/releases/v5.0.13/css/all.css">
<link href="http://fonts.googleapis.com/css?family=Lato:300,400,700,300italic,400italic,700italic" rel="stylesheet" type="text/css">
<link href="https://fonts.googleapis.com/css?family=Lato" rel="stylesheet">
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstrap.min.css">

</head>
<body>
```

- *Navbar*

2. *<% include partials/navbar.ejs %>*

```
<nav class="navbar navbar-inverse navbar-fixed-top">
    <div class="container">
        <button type="button" class="navbar-toggle collapsed" data-toggle="collapse" data-target="#bs-example-navbar-collapse-1" aria-expanded="false">
            <span class="sr-only">Toggle navigation</span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
            <span class="icon-bar"></span>
        </button>
        <div class="navbar-header">
            <a class="navbar-brand" href="#">DU Locator</a>
        </div>
        <div class="collapse navbar-collapse" id="bs-example-navbar-collapse-1">
            <ul class="nav navbar-nav">
                <li><a href="/home">Home</a></li>
                <li><a href="/home/feeds">feeds</a></li>
                <li><a href="#">Contact Us</a></li>
            </ul>
            <ul class="nav navbar-nav navbar-right">
                <% if(!currentUser){ %>
                    <li><a href="/login">Login</a></li>
                    <li><a href="/register">Sign Up</a></li>
                <% } else { %>
                    <li><a href="#">Signed In As <%= currentUser.username %></a></li>
                    <li><a href="/logout">Logout</a></li>
                <% } %>
            </ul>
        </div>
    </div>
</nav>

<div class="container">

<% if(error && error.length > 0){ %>
```

20

```
        <div class="alert alert-danger" role="alert" >
            <%= error %>
        </div>
    <% } %>
    <% if(success && success.length > 0){ %>
        <div class="alert alert-success" role="alert" >
            <%= success %>
        </div>
    <% } %>
</div>
```

- Code for particular College Page

```
<% include  partials/header.ejs %>
 <% include  partials/navbar.ejs %>
 <div class="container">
    <img  style="margin-top: 6% ; margin-left:30% "  src=" <%= blog.image %>">

 </div>
 <div class="container">
    <div class="jumbotron" style="margin-top:4%; background:#FF7043" >
     <h3><strong>Campus:</strong> Delhi</h3>
      <h3><strong>Address:</strong><%= blog.address   %></h3>
       <h3><strong>Email:   </strong><%= blog.link   %></h3>
        <h2>phone No:<%= blog.contact %></h2>


   </div>
   </div>

    <div class="container">
                    <div class="jumbotron">
                        <div class="row">
            <div class="col-lg-4  col-md-6">
                <iframe src="<%= blog.api %>" width="600" height="450" frameborder="0"
style="border:0" allowfullscreen></iframe>
            </div>
          </div>
        </div>
        </div>

         <div class="container">
            <h2> Download all the cut-off lists of <%=blog.name %> 2018</h2>
```
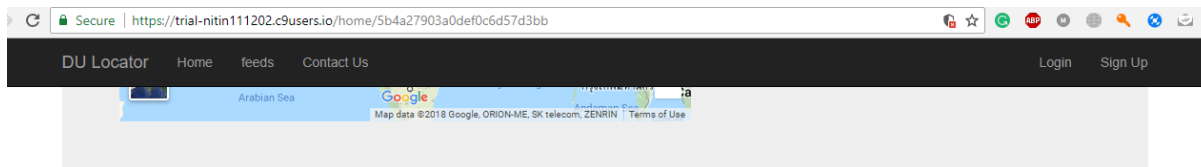
DU Locator

```
            </div>


        <% include  partials/cutoff.ejs %>

        <div class="container">
          <div class="well">
                <div class="text-right">

                  <p>
                        <a class="btn btn-success" href="/home/<%= blog._id
%>/comments/new">Add New Comment</a>
                        </p>

                </div>
                  <% blog.comments.forEach(function(comment){ %>
                <p>
                    <strong><%= comment.author %></strong> - <%= comment.text %>
                </p> <% include  partials/footer.ejs %>
```

DU Locator

11.4 User Interface Screenshots

11.4.1 Landing Page
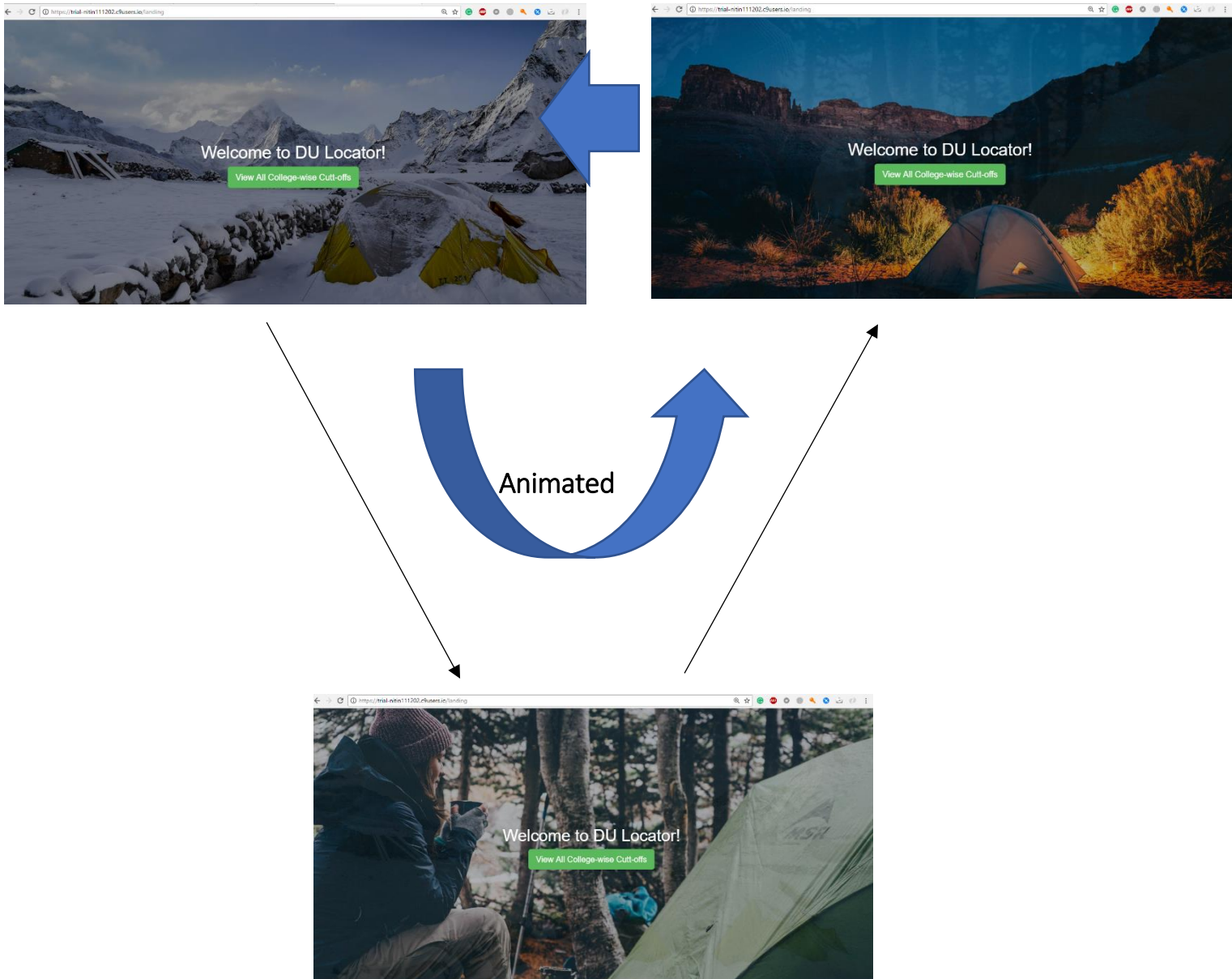
11.4.1.4 Image showing animated first page

DU Locator

11.4.2 Nav-bar with authentication

11.4.1.5 Image showing login Page in navbar

11.4.1.6 Image showing Navbar

11.4.1.7 Image showing Signup Page

DU Locator

11.4.3 Main College Info Page
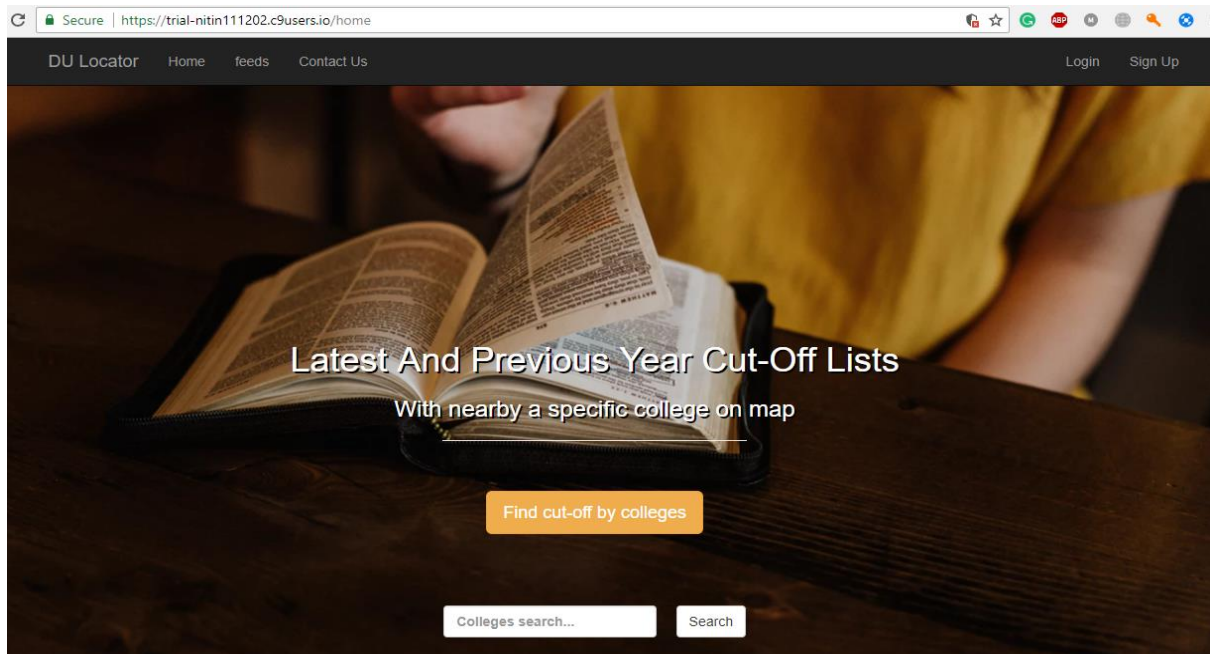
11.4.1.8 Image showing main screen page with search Facility
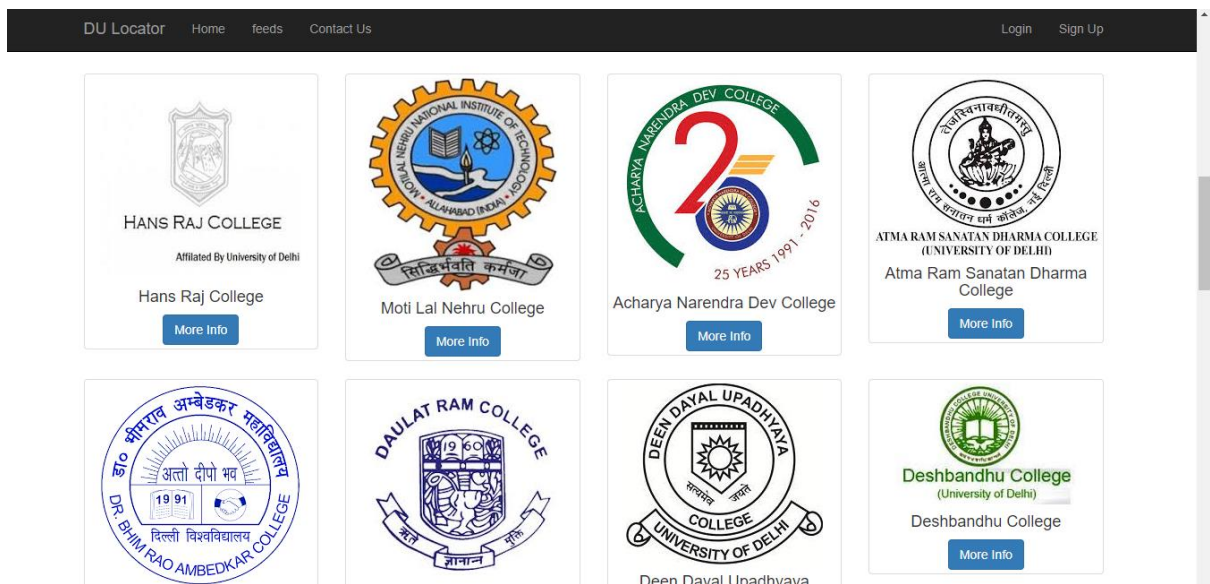
11.4.1.9 Image showing College list

DU Locator

11.4.4 Recreational Spots of Particular college

11.4.1.10 Image showing College page of Hansraj college
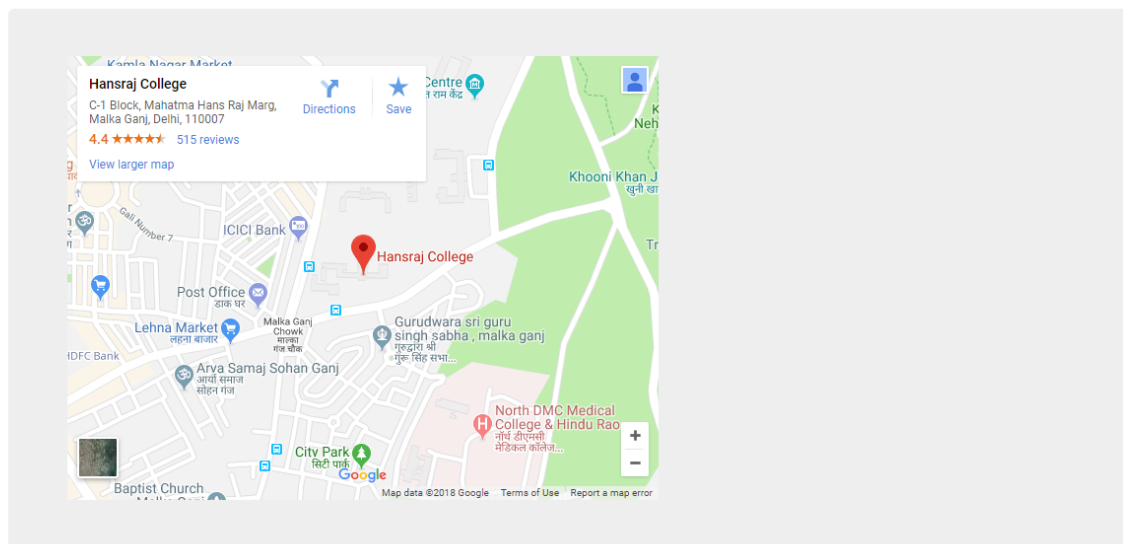
11.4.1.11 Image showing Recreational Spots

11.4.5 Query Forum on every College Page

11.4.1.12 Image showing Comment Forum
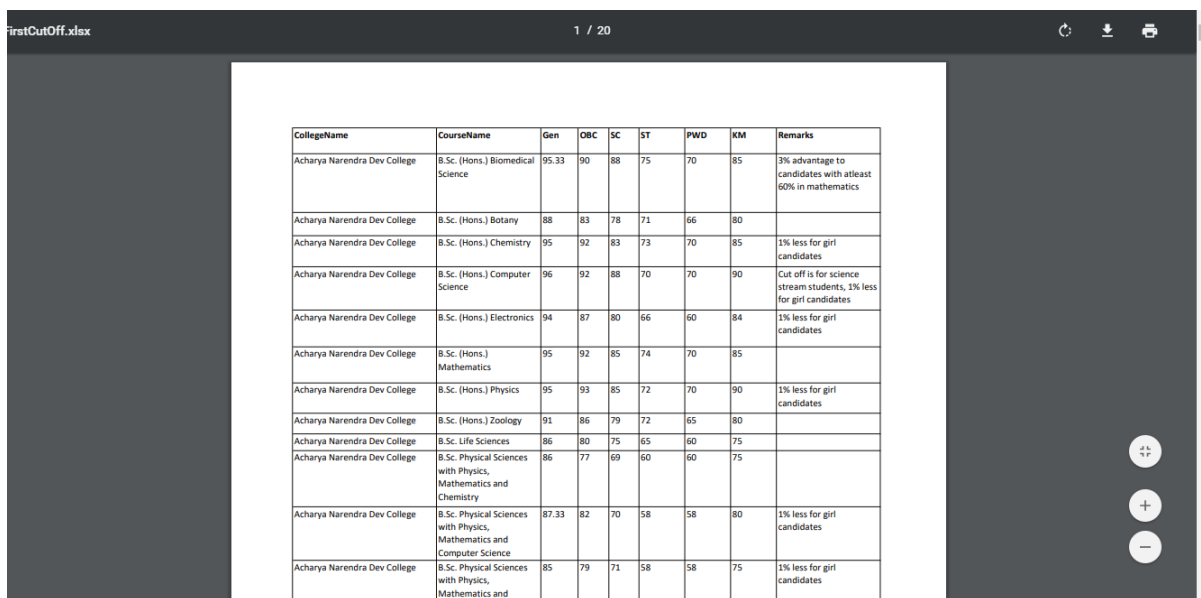
11.4.6 Cut-offs List College-wise

11.4.1.13 Image showing Cutoffs List

11.4.1.14 Image showing Cutoffs of particular college

DU Locator

12. Outcomes

The outcomes of the project were –

- This website has maintained Live Query Forum not only in single page, but on dynamic pages, which means if any student has any query regarding particular colleges he/she can simply post his doubt on college page only.
- Created around all colleges separate to prevent from kayos which includes name, address, recreational spots, live query forum, cut-offs list.
- Created a simple elegant website which provide full stack experience to any student, and he/she don't have to wait even when the Delhi University server goes down.
- We successfully able to overcome by many hacking attacks like DDOS, SQL Injection etc.
- To make ease for student, search facility is provided, now user don't have to scroll over and over to find particular college.
- Able to add authenticity to avoid fake users.
- Showcasing latest feeds from DU, either it be any event or any information.
- Showcasing availability of public transport (metro stations, food stalls) near the selected college on the map.
- Showcasing college contact information like address, website, and phone.

DU Locator

13. Conclusions

This website able will able to solve problem of thousands of students, every time when Du Cutoffs goes out their website crashes, but my website easily can hold around 1 million users per second that is being tested by DDOS attack.

- Availability of public transport is present.
- This application is handy source to get information about any kind of events happening in DU university in feed section.
- Nearby metro, Hotels, Bus Stops is provided in the map of each college page.

This project was mainly focused on providing solutions to above problems, and hopefully I able to solve all those.

14. List of Pictures

DU Locator

15. References

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- https://www.w3schools.com/html/default.asp
- https://www.npmjs.com/
- https://teamtreehouse.com/
- http://code.jquery.com/
- https://www.codecademy.com/
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- https://css-tricks.com/

DU Locator