VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belgaum – 590 014

A MINI-PROJECT REPORT

on

BLOG APPLICATION

Submitted in partial fulfilment of Bachelor of Engineering *in*

COMPUTER SCIENCE AND ENGINEERING

For the academic year 2020-2021

by

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Under the guidance of

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the mini-project report entitled **"BLOG APPLICATION"** is a bonafide work carried out by **J PRINCE KELVIN (1GD18CS016)** in partial fulfillment of requirement of V semester, **Bachelor of Engineering in Computer Science and Engineering** of the **Visvesvaraya Technological University**, Belgaum during the year, **2020-21**. It is certified that all correction/suggestion indicated for internal assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirement in respect of project work prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mrs.Suparna.K	**Dr. J. Somasekar**	**Dr. N. Sengottaiyan**

External Viva

Name of the Examiners: **Signature with Date**

1.

2.

DECLARATION

I, **J PRINCE KELVIN (1GD18CS016)** student of V semester B.E. in Computer Science and Engineering, **Gopalan College of Engineering and Management,** Bangalore, hereby declare that the project work entitled **"BLOG APPLICATION"** submitted to the **Visvesvaraya Technological University** during the academic year **2020-21**, is a record of an original work done by me under the guidance of **Mrs.Suparna.K**, Assistant Professor, Department Computer Science and Engineering, Gopalan College of Engineering and Management, Bangalore. This project work is submitted in partial fulfilment of the requirements for the award of the degree of **Bachelor of Engineering in Computer Science and Engineering**. The results embodied in this project have not been submitted to any other University or Institute for the award of any degree.

Date:

Place: Bengaluru

J PRINCE KELVIN
(1GD18CS016)

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ABSTRACT

Here, a mini-project entitled "**BLOG APPLICATION**" is a Full Stack Web Application. The term blogging and blog is a latest buzz word in the modern society as more people started reading and writing blogs online. There is constant increase in the number of people turned in the blogs way and it is a good medium for everybody to write and publish their opinions online. Every day people from all over the world are waiting for the celebrities blogs and want to reply their comments for that.

Research on the use of blogs in higher education suggests that students who blog as part of a course requirement demonstrate increased reflection, heightened feelings of connection, and increased course-related knowledge. Blogging provides a promising medium for students to engage in reflection on their participation in a cooperative education work term.

This "**BLOG APPLICATION**" is a platform that allows users worldwide to view the posts under various topics and share their opinions through comments & Like/Dislike features.

The main aim of this application is to provide a **CMS** (Content Management System) for the 'Admin User" & a good **UI** (User Interface) for the "Normal Users".

ACKNOWLEDGEMENT

My project report is the result of the encouragement of many people who helped shape it and provided Feedback, direction and valuable support. It is with hearty gratitude that I acknowledge their contribution to my project.

I express gratitude towards to **Dr. N. SENGOTTAIYAN**, **Principal**, Gopalan College of Engineering and Management, for providing me with the infrastructure and resources that helped in making this project a success.

I'm really thankful to **Dr. J SOMASEKAR**, Professor and HOD of Computer Science & Engineering department, GCEM for his constant support extended towards me during the course of this project.

I'm really thankful to **Mrs. SUPARNA .K**, Assistant Professor, my guide, Computer Science & Engineering department, GCEM for her constant support extended towards me during the course of this project.

Finally, I would like to extend my thanks to my friends and family who supported me and provided me with suggestions to make the project better.

J PRINCE KELVIN
(1GD18CS016)

CHAPTER 1

INTRODUCTION

A database is an organized collection of data. A relational database, more restrictively, is a collection of schemas, tables, queries, reports, views, and other elements. Database designers typically organize the data to model aspects of reality in a way that supports - processes requiring information, such as (for example) modelling the availability of rooms in hotels in a way that supports finding a hotel with vacancies.

A database-management system (DBMS) is a computer-software application that interacts with end-users, other applications, and the database itself to capture and analyze data. A general-purpose DBMS allows the definition, creation, querying, update, and administration of databases .Well-known DBMS's include MySQL, PostgresSQL, EnterpriseDB, MongoDB, MariaDB, Microsoft SQL Server, Oracle, Sybase, SAP HANA, MemSQL, SQLite and IBM DB2.

A database is not generally portable across different DBMSs, but different DBMSs can interoperate by using standards such as SQL and ODBC or JDBC to allow a single application to work with more than one DBMS.

1.1 Overview

This report discusses the result of the work done in development of a full stack web application entitled "**BLOG APPLICATION**" (Blog Website). The frontend has been developed using the following languages HTML, CSS, JavaScript, Bootstrap, PHP and all the files are organized in a standardized directory & the Backend has been designed using PHP which connects to my MySQL DB.

1.2 Problem statement

This report's documentation goes through the whole process of both application program and database development. It also comprises the development tools have been utilized for these purposes. This system should consist of an application program, on one hand, and a database (repository of data) on the other. The program should perform the basic operations upon the database as retrieving, inserting, updating and deleting data. Any additional functionality is a goal of a further module development.

1.3 Objective

The "**BLOG APPLICATION**" has been developed to override the problems prevailing in the practicing static website where all the data are hard coded. This application is supported to eliminate and in some cases reduce the hardships faced by this existing system.
Ex: Adding a new post from frontend.
Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

1.3.1 Need of management system:

1) Faster System

2) Accuracy

3) Reliability

4) Informative

5) Inserting

6) Updating and deleting the data

7) Constructive feedback

1.3.2 Methodology:

To implement the above goals, the following methodology needs to be followed:

1. Specifying the Application and various components of the Architecture.

2. Specifying the bindings between the tasks and the resources either manually or by the design tools.

3. Specifying the port interconnections between the resources.

1.4 Scope of project:

It is a system that allows users to view various '**Blogs**' posted on the website and share their thoughts through **comments & Like/Dislike Features**. The project consists of list of Blogs under various topics, & various options has been provided to the User such as Register/Login, Like/Dislike, Comment, Search, Filter by etc.

Admin has the full access to manage all the activities in the website such as managing (posts, topics, users, comments) via Admin Dashboard.

Thus, the **BLOG APPLICATION** project brings various blog content in one place so that the users can read different blogs as per their interest in a single website

CHAPTER 2

SPECIFICATION

2.1 Software Requirements:

Operating systems: Cross platform -Windows, MAC, and Linux.

Installation:-

PHP : All the business logic & interaction with database is written in PHP version 7.4.12

MYSQL: Latest version of MYSQL is used as the primary database to store all transactional & non-transactional data

Browser : Any Web Browser can be used, preferably Latest Version of Chrome.

JSON : Frontend & Backend transports data between each other's using JSON format (in some cases)

2.2 Hardware Requirements :

RAM:	256 MB or above
Storage Capacity:	15GB
Processor Speed:	500MHz or above

CHAPTER 3

DESIGN

3.1 Use case diagram

Use case diagrams are used to gather the requirements of a system including internal and external influences. These requirements are mostly design requirements. Hence, when a system is analyzed to gather its functionalities, use cases are prepared and actors are identified. When the initial task is complete, use case diagrams are modelled to present the outside view. In brief, the purposes of use case diagrams can be said to be as follows

- Used to gather the requirements of a system.
- Used to get an outside view of a system.
- Identify the external and internal factors influencing the system.
- Show the interaction among the requirements are actors.

Use case diagrams specify the events of a system and their flows. But use case diagram never describes how they are implemented. Use case is used to capture high level functionalities of a system.

Use case diagrams are considered for high level requirement analysis of a system. When the requirements of a system are analyzed, the functionalities are captured in use cases. Actors can be defined as something that interacts with the system.

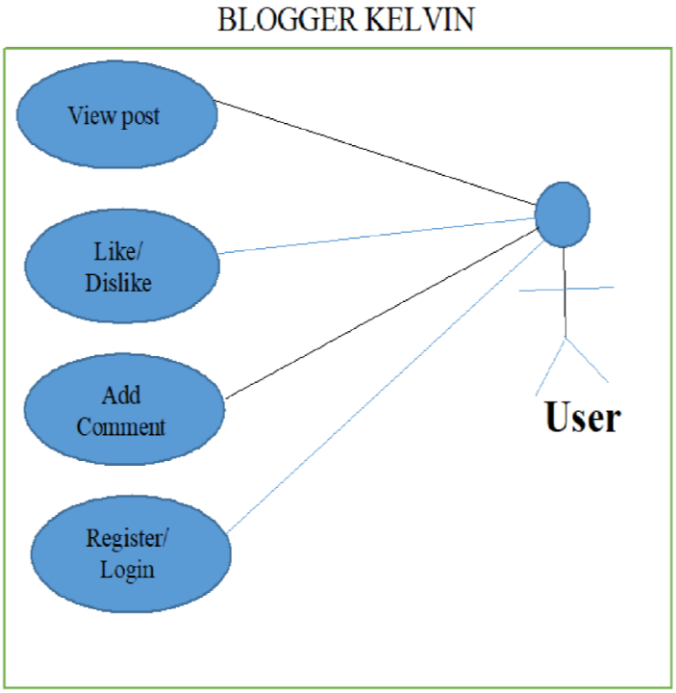
Actors can be a human user, some internal applications or may be some external applications. When we are planning to draw a use case diagram, we should have the following items are to be identified:

1. Functionalities to be represented as use case.

2. Actors

3. Relationships among the use cases and actors.

Use case diagrams are drawn to capture the functional requirements of a system. Its specific purpose is to gather system requirements and actors.



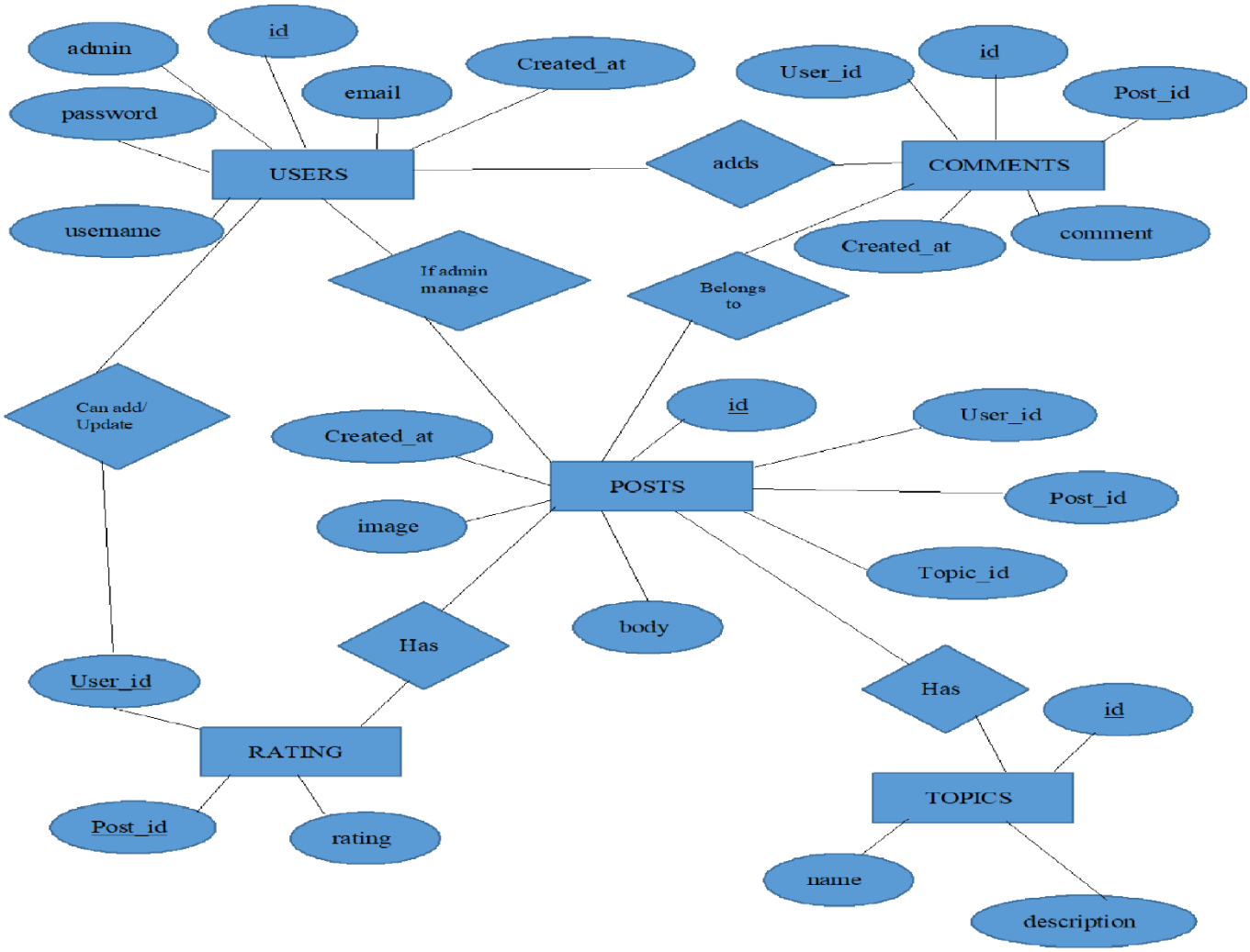
3.2 ER diagram

An entity–relationship model is usually the result of systematic analysis to define and describe what is important to processes in an area of a business. It does not define the business processes; it only presents a business data schema in graphical form. It is usually drawn in a graphical form as boxes (entities) that are connected by

lines (relationships) which express the associations and dependencies between entities. Entities may be characterized not only by relationships, but also by additional properties (attributes), which include identifiers called "primary keys". Diagrams created to represent attributes as well as entities and relationships may be called entity-attribute-relationship diagrams, rather than entity-relationship models.

An ER model is typically implemented as a database. In a simple relational database implementation, each row of a table represents one instance of an entity type, and each field in a table represents an attribute type. In a relational database, a relationship between entities is implemented by storing the primary key of one entity as a pointer or "foreign key" in the table of another entity.

Database Name – "blog"



CHAPTER 4

IMPLEMENTATION

4.1 SOURCE CODE:

4.1.11 Home Page - .PHP file

```
<?php include("path.php");
   include(ROOT_PATH . "/app/controllers/topics.php");
   $posts = array();
   $postsTitle = 'Recent Posts';
   $gridTitle = 'Featured Blogs';
   if(isset($_GET['t_id'])){
     $posts = getPostByTopicId($_GET['t_id']);
     $postsTitle = "You Searched for posts under '" . $_GET['name'] . "'";
     $gridTitle = "You Searched for posts under '" . $_GET['name'] . "'";

   }
   else if (isset($_POST['search-term'])) {
      $postsTitle = "You Searched for '" . $_POST['search-term'] . "'";
      $gridTitle = "You Searched for '" . $_POST['search-term'] . "'";
      $posts= search($_POST['search-term']);
   }else{

     $posts = getPublishedPosts();
   }
?>
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<meta http-equiv="X-UA-Compatible" content="ie=edge">
<!-- Font Awesome -->
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/4.7.0/css/font-awesome.min.css" />
<script src="https://kit.fontawesome.com/a076d05399.js"></script>
<script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.5.1/jquery.min.js"></script>
<script src="assets/js/script.js"></script>
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<!-- Custom Styles -->
<link rel="stylesheet" href="assets/css/style.css">
<title>BLOG APPLICATION</title>
</head>
<body>
<!-- header -->
<?php include(ROOT_PATH . "/app/includes/header.php");?>
```

```
<?php include(ROOT_PATH . "/app/includes/message.php");?>
<!-- // header --><!-- Page wrapper -->
<div class="page-wrapper">
 <!-- Posts Slider -->
 <div class="posts-slider">
  <h1 class="slider-title">Trending Posts</h1>
  <i class="fa fa-chevron-right next"></i>
  <i class="fa fa-chevron-left prev"></i>
  <div class="posts-wrapper">
   <?php foreach ($posts as $post): ?>
    <div class="post">
     <div class="inner-post">
      <img src="<?php echo  BASE_URL . '/assets/images/' . $post['image'];?>" alt="" style="height: 200px; width: 100%; border-top-left-radius: 5px; border-top-right-radius: 5px;">
      <div class="post-info">
       <h4><a href="single.php?id=<?php echo $post['id']; ?>"><?php echo $post['title']; ?></a></h3>
        <div>
         <i class="fa fa-user-o"></i> <?php echo $post['username']; ?>
          
         <i class="fa fa-calendar"></i> <?php echo date('F j, Y',strtotime($post['created_at'])); ?>
        </div>
       </div>
      </div>
     </div>
    <?php endforeach; ?>
   </div>
 </div>
 <!-- // Posts Slider -->
 <!-- Blogs Grid display -->
 <div class="container-fluid px-0">
  <nav class="navbar navbar-expand-lg navbar-light bg-light navbar-fixed">
    <div class="container-fluid d-flex"> <a class="navbar-brand" href="#"><?php echo $gridTitle; ?></a>
    </div>
  </nav>
 </div>
  <div class="jumbotron justify-content-center">
    <div class="d-flex justify-content-between p-3 bg-white mb-3 align-items-center"> <span class="font-weight-bold text-uppercase">Page 1</span>
      <div> <img src="https://img.icons8.com/windows/100/000000/list.png" width="30" /> <img src="https://img.icons8.com/ios-filled/100/000000/squared-menu.png" width="25" /> </div>
    </div>
    <div class="container">
      <div class="row">
       <?php foreach ($posts as $key => $post): ?>
        <div class="col-lg-4 col-md-6 col-sm-6 col-xs-8  ">
         <div> <img  height="200px;"src="<?php echo  BASE_URL . '/assets/images/' . $post['image'];?>" class="card-img-top">
          <div class="d-flex justify-content-between"> <span class="font-weight-bold" ><?php echo $post['title']; ?></span> <span class="font-weight-bold"><?php echo date('F j, Y',strtotime($post['created_at'])); ?></span> </div>
           <div class="d-flex align-items-center flex-row">  <i class="fa fa-user-o"></i>  <span class="guarantee"><?php echo $post['username']; ?></span> </div>
            <p><?php echo html_entity_decode(substr($post['body'],0, 150) . '...'); ?></p><hr>
```

```
                <div class="card-body">
                  <div class="text-right buttons"> <a href="single.php?id=<?php echo $post['id'];?>"><button class="btn btn-outline-dark"style="background-color:yellow;" ><strong>Read More</strong></button></a></div>
                </div>
              </div>
            </div>
          <?php endforeach; ?>
        </div>
      </div>
    </div>
 <!-- content -->
 <div class="content clearfix">
  <div class="page-content">
    <h1 class="recent-posts-title"><?php echo $postsTitle; ?></h1>
    <?php $i=0; foreach ($posts as $post):  if ($i++ == 4) break;  ?>
      <div class="post clearfix">
       <img src="<?php echo  BASE_URL . '/assets/images/' . $post['image'];?>" class="post-image" alt="">
       <div class="post-content">
         <h2 class="post-title"><a href="single.php?id=<?php echo $post['id'];?>"><?php echo $post['title']; ?></a></h2>
         <div class="post-info">
           <i class="fa fa-user-o"></i> <?php echo $post['username']; ?>
            
           <i class="fa fa-calendar"></i> <?php echo date('F j, Y',strtotime($post['created_at'])); ?>
         </div>
         <p class="post-body"><?php echo html_entity_decode(substr($post['body'],0, 150) . '...'); ?>
         </p>
         <a href="single.php?id=<?php echo $post['id'];?>" class="read-more">Read More</a>
       </div>
      </div>
    <?php endforeach; ?>
   </div>
   <div class="sidebar">
    <!-- Search -->
    <div class="search-div">
      <form id="form" role="search" action="index.php" method="post">
        <input id="query" type="text" name="search-term" class="text-input" placeholder="Search..." aria-label="Search through site content1" style="width: 60%;">
          <button id="search"><strong>Search</strong></button>
      </form>
    </div>
    <!-- // Search -->
    <!-- topics -->
    <div class="section topics">
      <h2>Topics</h2>
      <ul>
        <?php foreach ($topics as $key => $topic):?>
          <a href="<?php echo BASE_URL . '/index.php?t_id=' . $topic['id'] . '&name=' .$topic['name']; ?>"><li><?php echo $topic['name']; ?></li></a>
        <?php endforeach; ?>
      </ul>
    </div><!-- // topics -->
```

```
    </div>
  </div>
  <!-- // content -->
</div>
<!-- // page wrapper -->
<!-- FOOTER -->
<?php include(ROOT_PATH ."/app/includes/footer.php");?>
<!-- // FOOTER -->
<!-- JQuery -->
<script>window.jQuery || document.write('<script src="/assets/js/vendor/jquery.slim.min.js"><\/script>')</script><script
src="assets/dist/js/bootstrap.bundle.js"></script>
</body>
</html>
```

4.1.12 Login Post- .PHP file

```
<?php include("path.php")?>
<?php include(ROOT_PATH ."/app/controllers/users.php" );
//guestsOnly();?>
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <meta http-equiv="X-UA-Compatible" content="ie=edge">
  <link rel="stylesheet" href="assets/css/style.css">
  <title>Login</title>
</head>
<body style="background-image: url(assets/images/blog.jpg);background-repeat: no-repeat;background-size:100%
100%;">
  <!-- header -->
<?php include(ROOT_PATH ."/app/includes/header.php");?>
  <!-- // header -->
  <div class="auth-content login">
    <form action="login.php" method="post">
      <h3 class="form-title" style="margin-bottom:1rem;">Login</h3>
      <?php include(ROOT_PATH ."/app/helpers/formErrors.php");?>
      <div class="label"><label>Username</label>
        <input type="text" name="username"value="<?php echo $username; ?>" class="text-input">
      </div>
      <div class="label"><label>Password</label>
        <input type="password" name="password"value="<?php echo $password; ?>"  class="text-input">
      </div><div>
        <button type="submit"name="login-btn" class="btn"><strong>Login</strong></button>
      </div>  <p class="auth-nav">New User? <a href="<?php echo BASE_URL . '/register.php'?>">Sign Up</a></p>
    </form></div>
 <?php include(ROOT_PATH ."/app/includes/footer.php");?>
    <script src="https://cdnjs.cloudflare.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
  <script src="assets/js/script.js"></script>
</body>
</html>
```

CHAPTER 5

CONCLUSION AND FUTURE ENHANCEMENT

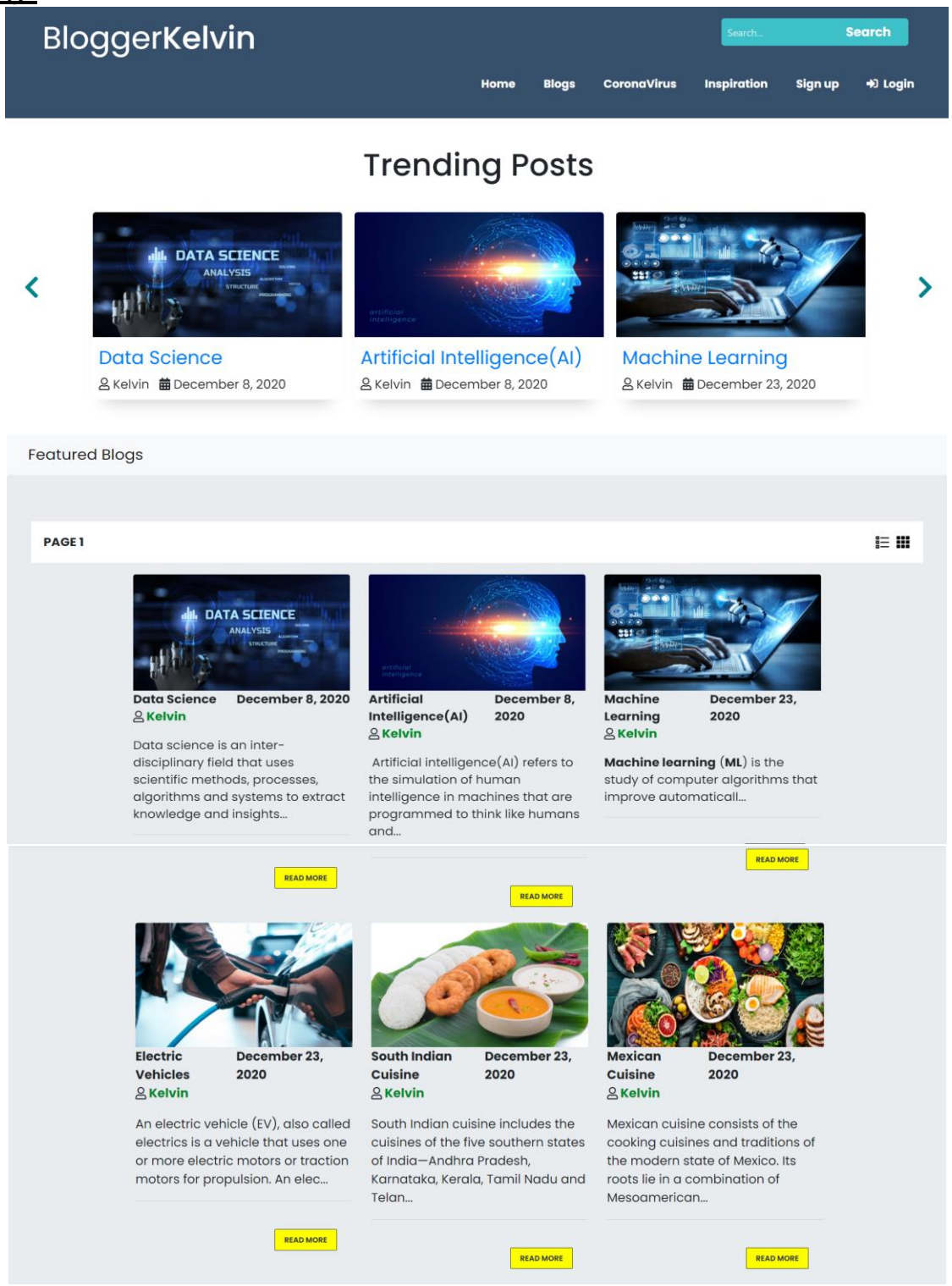
Thus, the project, **BLOG APPLICATION**, was successfully implemented, which helps us in administrating the data used for managing the Posts, Users, Comments, Rating, Topics .It has successfully used various functionalities of MYSQL database and JavaScript and created the fully functional application for BLOG APPLICATION (web application).

It is not possible to develop a system that meets all the requirements of the user. User requirements keep changing as the system is being used. Some of the future enhancements that can be done to this system are: As the technology emerges, it is possible to upgrade the system and can be adaptable to desired environment. Based on the future security issues, security can be improved using emerging technologies. Important thing is that system should be flexible and portable enough for further modifications. Considering this important factor, the system is designed in such a way that provisions can be given for future enhancement without affecting the system presently developed.

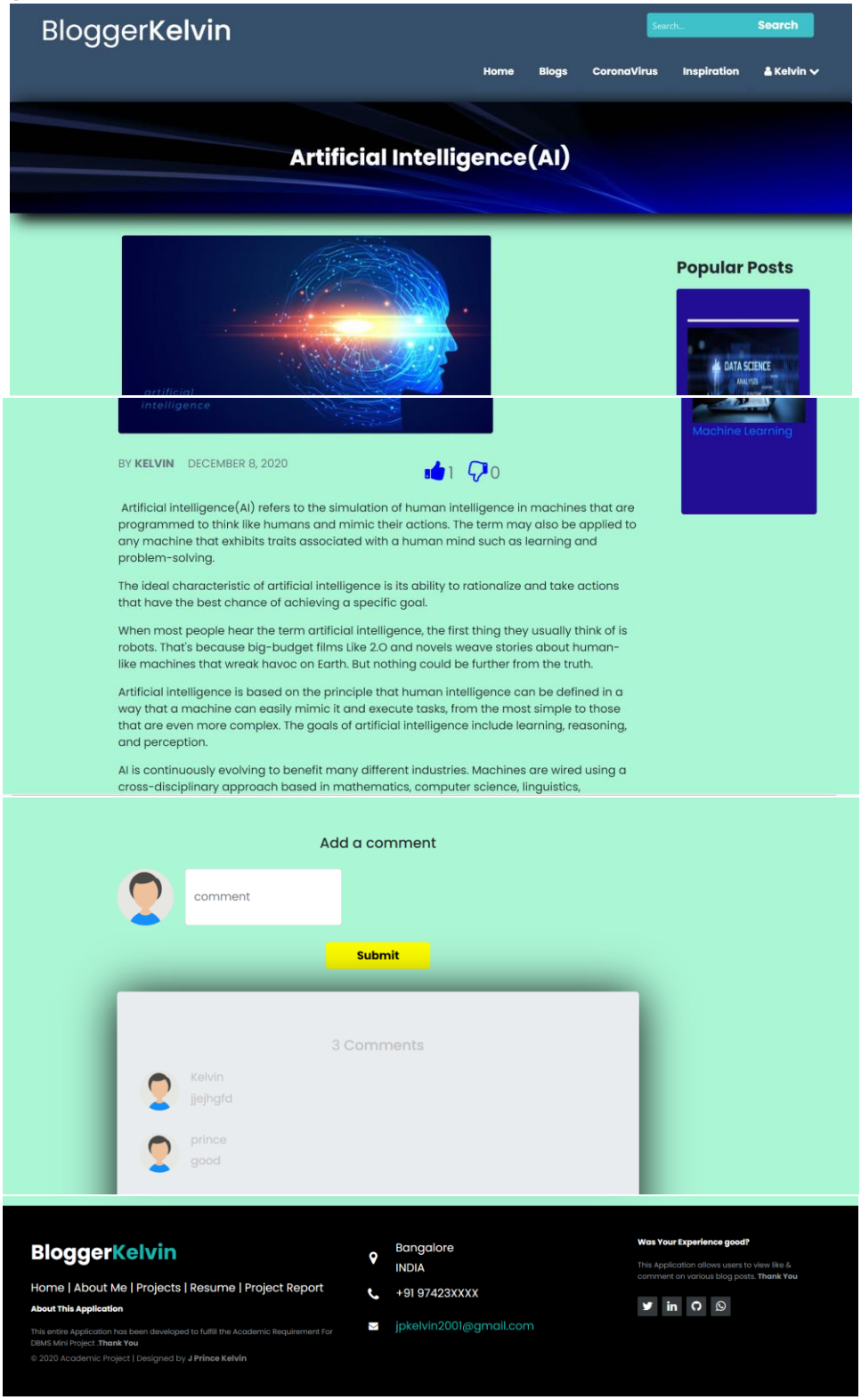
APPENDIX

A: SCREEN OUTPUT

Home Page

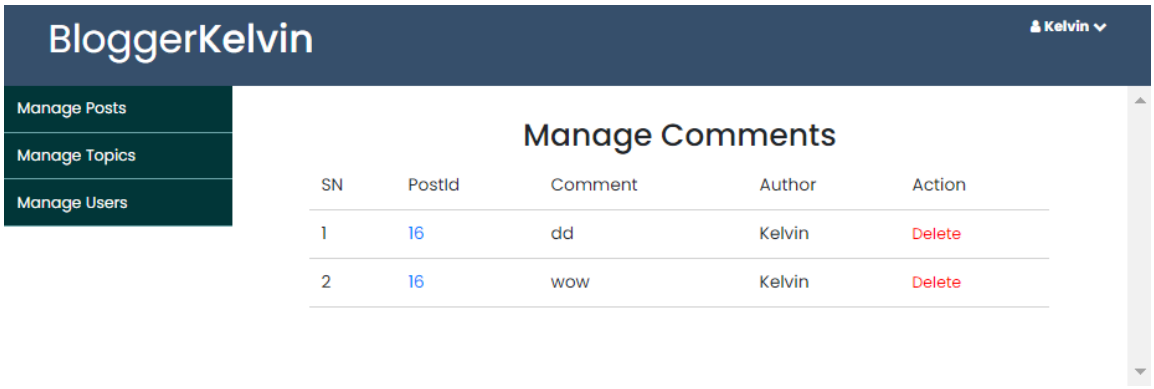


Single Post Page

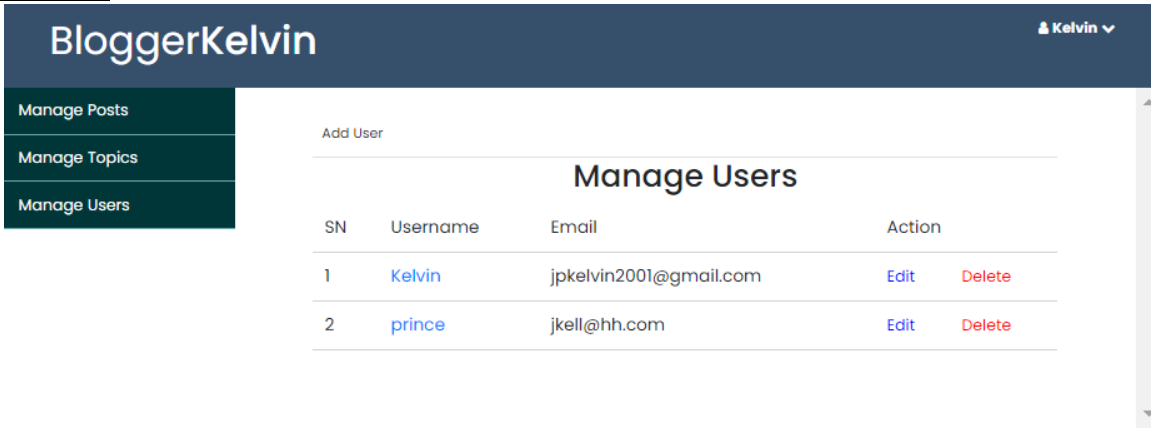


Admin Dashboard

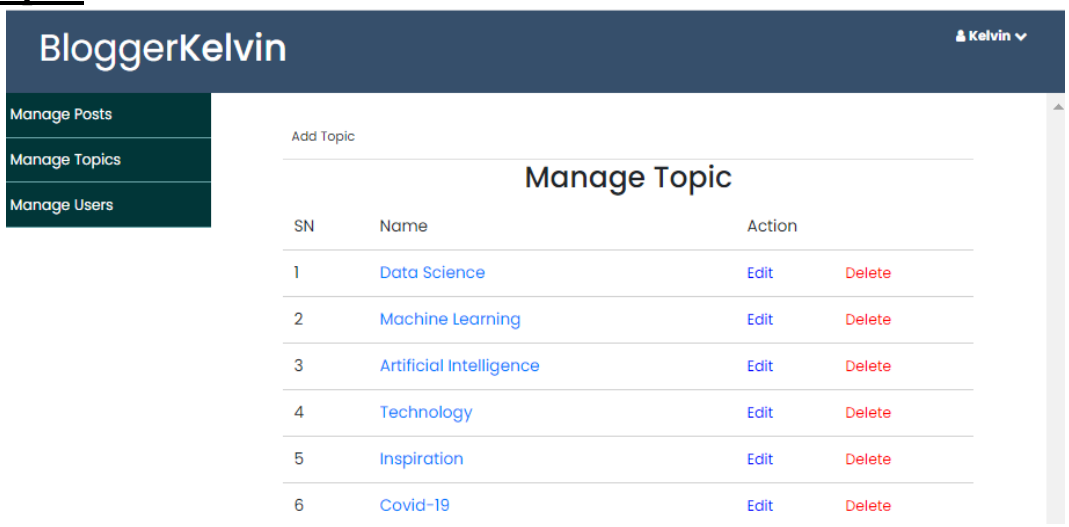
Manage Comments



Manage Users



Manage Topics



B: REFERENCES

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Thank you…