CAPSTONE PROJECT REPORT

(Project Term January-May 2021)

UNIVERSITY MANAGEMENT SYSTEM

Submitted by

Sarvesh Kumar Registration no. – 12002369

Mukul Bhardwaj Registration no. – 12011336

Isha Lohia Registration no. – 12011811

Project Group Number – 09

Course code - CSE326

Under the guidance of

Dr. Moin Hasan



SCHOOL OF COMPUTER SCIENCE AND ENGINEERING



TOPIC APPROVAL PERFORMA

School of Computer Science and Engineering

Program: B-Tech -CSE

COURSE CODE: CSE326

GROUP NUMBER: 9

SUPERVISER NAME: Dr Moin Hasan

DESIGNATION:

RESEARCH EXPERIENCE:

Sr. No.	Name	Reg No.	Batch	Section
1	Sarvesh Kumar	12002369	2020-24	K20KR
2	Mukul Bhardwaj	12011336	2020-24	K20KR
3	Isha Lohia	12011811	2020-24	K20KR

PROPOSED TOPIC: University Management System

Qualitative Assessment of Proposed Topic by PAC							
Sr. No.	Parameter			Rating (out			
PAC Con	nmittee Members						
			·	·			

Final Topic Approved by PAC:

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DECLARATION

We hereby declare that the project work entitled "UNIVERSITY MANAGEMENT SYSTEM" is an authentic record of our own work carried out as requirements of Capstone Project for the award of B-Tech

Degree in Computer science and engineering (CSE) from Lovely Professional University, Phagwara, under the guidance of Dr. Moin Hasan during January to May 2021. All the information furnished in this capstone project report is based on our own intensive work and is genuine.

Project Group Number – 09

- Student 1- Sarvesh Kumar
 Registration no. 12002369
- **Student 2-** Mukul Bhardwaj Registration no. –12011336
- **Student 3** Isha Lohia Registration no. –12011811

(signature of student 1)

Sarvesh Kumar

Date: 23/04/21

(signature of student 2)

Mukul Bhardwaj

Date: 23/04/21

(signature of student 3)

Isha Lohia

Date:23/04/21

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CERTIFICATE

This is to certify that the declaration statement made by this group of students is correct to the best of my knowledge and belief. They have completed this Capstone Project under my guidance and supervision. The present work is the result of their original investigation, effort and study. No part of the work has been submitted for any other degree at any University. The Capstone Project is fit for the submission and partial fulfillment of the conditions for the award of B-Tech degree in Computer Science and Engineering (CSE) from Lovely Professional University, Phagwara.

Signature and Name of the Mentor: Dr Moin Hasan

Designation:

School of Computer Science and Engineering,

Lovely Professional University,

Phagwara, Punjab.

ACKNOWLEDGEMENT

Foremost, it is our privilege to express our sincerest regards, special thanks and gratitude to our teacher Dr. Moin Hasan who gave us the golden opportunity to do this wonderful project on the topic "UNIVERSITY MANAGEMENT SYSTEM" which also helped us in doing a lot of research and we came to know about so many new things.

We are over helmed in all humbleness and gratefulness to acknowledge my depth to all who have helped us to put these ideas. Any attempt at any level can't be satisfactorily completed without the continuous support of fellow mate of this project. We would like to thank each one of us who cooperate to put a lot of different information, collecting data, simulating discussions and working together to complete this project before deadline.

- Student 1 Sarvesh Kumar
 Registration no. –12002369
- Student 2 Mukul Bhardwaj
 Registration no. 12011336
- **Student 3** Isha Lohia Registration no. – 12011811

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13. REFERENCE

1-INTRODUCTION:

The "University Management System" is an improved Student Service, increase information sharing and providing Teacher facilities. It is based on Relational Database Management System technology, and can be run on any network environment, hence it is called a network application. It can handle all details about a student. The details include Online course Offering, Seat allocation, student take their course by own. Student management system is managed by a Department. It is the job of the Department to insert update and monitor the whole process. Here comes the management system of the web page and managing the pages. The system will serve the management to reduce cycle times, faster keep track of data, and improve the service, increase information sharing and providing facilities to store information centrally.

Development process of the system starts with System analysis. System analysis involves creating a formal model of the problem to be solved by understanding requirements. We were fortunate and blessed to get this lucky break to work with this appreciable project.

The system will do the following activities:

- Course Assignment
- Result View by Admin
- Class Routine/Timetable
- Enrolled Courses by Admin
- Show Subject wise and overall Attendance
- Download PDF copy of Notes

2-PROFILE OF THE PROBLEM:

We have seen this project from the perspective of both makers and users of the site. This project aims to develop a system is for any type of document but nothing particular. This system is revolutionary to document processing. The uniqueness is being web based and for general-purpose. Being web based makes this system available everywhere through internet. Being general-purpose means system can be used for all type of documents and for most organizations. To develop a database system which can easily store, retrieve and update data. The system is to eliminate their manual counting of student taking a particular subject to a computerized system which can query.

The main objective of this project is to establish an integrated University Management system which enables us to automate the dynamic administrative processes in the university.

This can be achieved through:

- Supporting every decision ever made.
- Improving the services provided to the students, Teacher and Department.
- Improving the accuracy of the follow up and management of student data in the university.

3-EXISTING SYSTEM:

3.1 – Introduction

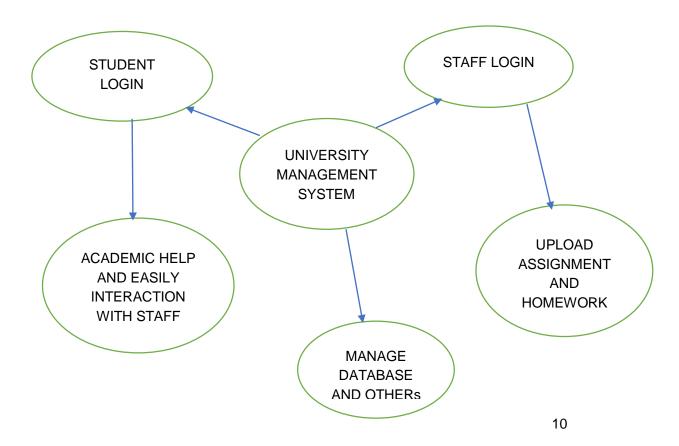
The existing system for university management is very manual, requiring a lot of human resources and paper work. Records of students, teachers, departments, faculties, courses, etc. are maintained using register, which is a very tedious task. Even though some big universities use computerized system, it is not advanced and cannot meet the current user requirements.

3.2 – Existing software

The system starts with registration of new staff and students. When the subjects are to be allocated to the faculty, the Head of the Department should enter everything in the Excel sheets. Then the staff enters corresponding subject's attendance and marks of a student then those must also be entered in the Excel sheets and validations are to be done by the user itself. So, there will be a lot of work to be done and must be more conscious during the entrance of details. So, more risk is involved.

3.3- DFD for present system

This system is arranged for the student Teacher and Department. Student or Teacher Assign Courses. Student to take academic help and give assignments, etc. and data coordinator maintain databases.



4-PROBLEM ANALYSIS:

4.1- Product definition

The proposed application can manage and handle all the activities and operations of departments and faculties, subjects and courses, students and teachers, and of the whole university as a whole. Besides records of these things, it additionally facilitates generation of test results of students related to a particular subject and department. The system is very secure as it features user-login panel. Only registered users can use this system by logging in. The graphical interface of the system is nice and the application is very user-friendly for a person with basic knowledge of computer to handle.

4.2- Feasibility analysis

The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility: Technical Feasibility centers on the existing computer system hardware, software, etc. and to some extent how it can support the proposed addition. This involves financial considerations to accommodate technical enhancements.
- Operational Feasibility: An estimate should be made to how strong a reaction the
 user staff is likely to have towards the development of the computerized system.
 The staff is accustomed to computerized systems. Hence, this system is
 operationally feasible. As this system is technically, economically and
 operationally feasible, this system is judged feasible
- Economical Feasibility: Economic feasibility is concerned with comparing the
 development cost with the income/benefit derived from the developed system. In
 this we need to derive how this project will help the management to take effective
 decisions. It is mainly concerned with the cost incurred in the implementation of
 the software.

4.3- Project plan

The main objective of the proposed university management system is to computerize the existing system and reduce manpower and time consumption The system is very easy to use, economic, reliable, and flexible. Operators can easily add new features, modules,

forms, and components as per university requirement in future. The planning of the project took many steps to be design, requirement analysis, implementation, testing.

5- SOFTWARE REQUIREMENT ANALYSIS:

5.1- Introduction

Requirement analysis is the process of obtaining all pertinent information regarding the project from the us. We have complete control over how the website looks and the features it must include. Requirement analysis is necessary for web development since it eliminates confusion and ensure rapid development based around our goals. A good requirement analysis saved our time and ensures better result. It requires team work which includes hardware, software and human skills.

5.2 General description

The technologies that we used in our website development are:

- 1- HTML HTML or Hyper Text Mark-up Language is the standard mark-up language used to create web pages. It can be assisted by technologies such as CSS and scripting languages such as JavaScript. A web browser can read HTML files and comprise them into visible or audible web pages. It gives the means to publish online documents with headings, text, tables, lists, photos, etc.
- 2- CSS- Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML. CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple web pages to share formatting by specifying the relevant CSS in a separate .css file which reduces complexity and repetition in the structural content as well as enabling the .css file to be cached to improve the page load speed between the pages that share the file and its formatting.

5.3- Specific Requirements

1-Hardware specification

- Processor Pentium-II or higher
- Processor Speed 533 MHZ
- Hard Disk Space 20 GB (min)
- Ram Memory 32 MB (64 MB recommended

2-Software specification

- 1. Operating System Windows 95/98/NT/2000
- 2. Front end HTML

6- DESIGN:

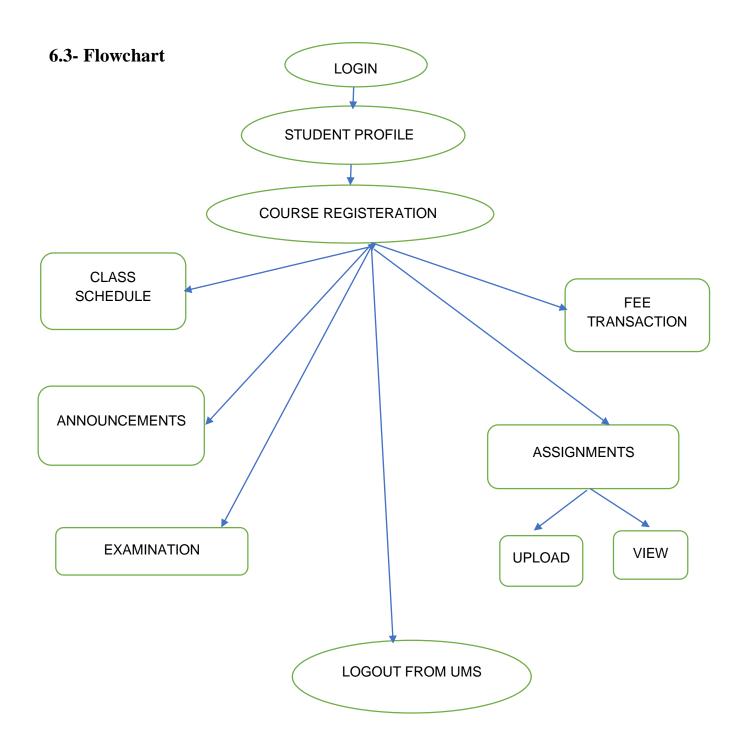
6.1 System design

System designs are considered for high level requirement analysis of a system. So, when the requirements of a system are analyzed the functionalities are captured in use cases. So, we can say that uses cases are nothing but the system functionalities written in an organized manner. Now the second things which are relevant to the design is a user. User can be defined as something that interacts with the system. The User can be Student, Staff, Data coordinator, etc. So, in a brief when we are planning to draw a system design we should have the following items identified.

- Admin Register Login, and store the student Records details in database.
- Student Register from the login Process.
- Then the database is searched for details and verified.
- Database stores the details and returns acknowledgement.

6.2-Activity diagrams

Activity diagram are graphical representations of workflows of stepwise activities and actions with support for choice, iteration and concurrency. The activity diagram flow of stepwise activities performed in recruitment system. The student details are Add and stored in database. Select the Course from the given Course by student. Search Profile and Result With login and if Data present in the database.



7- TESTING OF HTML AND CSS:

- 1- We test HTML and CSS to ensure that search engines can crawl your site easily. This will include
 - Checking for Syntax Error
 - Readable colour schemes
- 2- Testing the site Navigation: Menus, buttons or Links to different pages on your site should be easily visible and consistent on all webpages.
- 3- Compatibility testing: Compatibility tests ensures that your web application displays correctly across different devices. This would include.
 - Browser Compatibility Test: Same website in different browsers will display
 differently. You need to test if your web application is being displayed correctly
 across browsers, JavaScript, AJAX and authentication is working fine. You may
 also check for Mobile Browser Compatibility.
 - The rendering of web elements like buttons, text fields etc. changes with change in Operating System. Make sure your website works fine for various combination of Operating systems such as Windows, Linux, Mac and Browsers such as Firefox, Internet Explorer, Safari etc.

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Anouncement

Ums Global: Credit Transfer option for the Ums students

Apr 17,2021

Division of International Affairs brings great opportunity for the Ums students who want to get their credits transferred to partner foreign Universities in Canada, USA, UK, Australia & Dubai etc. Under credit transfer the students will be doing the following nrograms

University Management System | Email : xyz@gmail.com | Contact No: 000-111-2222

8- IMPLEMENTATION OF THE PROJECT:

We implemented our website using HTML and CSS language. For text editor we used VS code for speedup our work. We used different CSS stylesheets to style the way our website looks and behave. The gifs used in our websites are made by an android application known as Canva. We experienced as an user of our own website which help us to see our website from the perspective of an student using it, this even help us in making better changes in the website in future.

9- PROJECT LEGACY:

9.1-Current status of the project

After performing testing phase, we found some bugs in website. We fixed the bugs after the testing phase. Now, application perform well, the sometimes error of login or logout in the website have been corrected. For now. It has only certain features. In future we'll try to add some more.

9.2- Technical and Management lesson learnt

- All we have done, we have come to know many points. These points really help in making more projects in future.
 - Better understanding of HTML and CSS language
- In testing, we get to know how to test the product and fixed the bugs after testing.
- Maintenance of the project, how we can make it durable for future.
 Learn more features about text editor support (VS code).
- Last, we learned how to work in a team, how to make different modules and then integrate them into one.

10- USER MANUAL:

10.1 User Login System

User should have to sign up and register himself/herself and then after they have to just enter the correct user ID and password every time to login into the system.

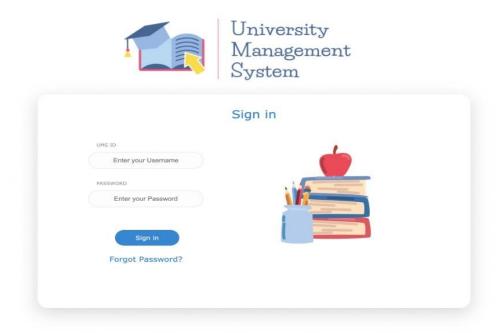


FIGURE 10.1 SIGN-IN PAGE

10.2- HOME PAGE

In Home page, you got access to see class timetable, examination, announcements of exam, events by the university, assignments assigned by the course teacher.

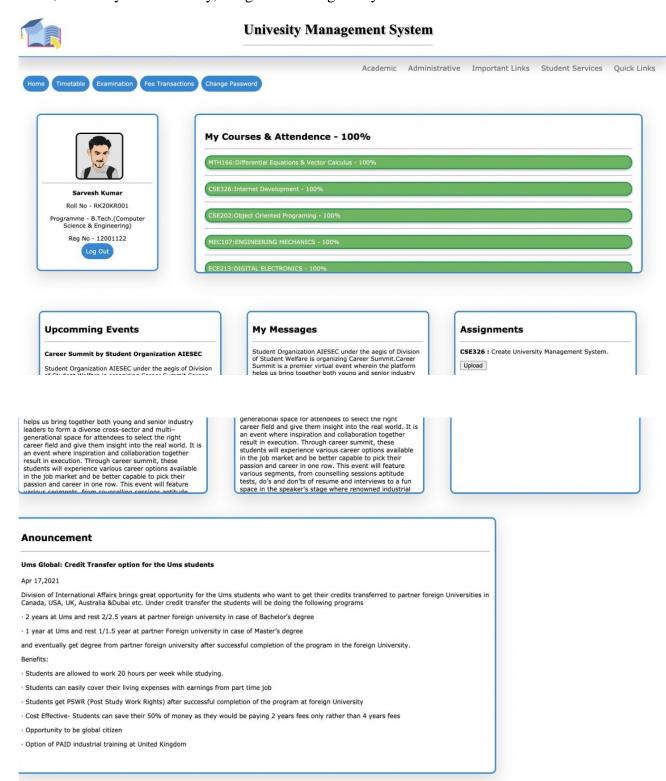


FIGURE 2,3- HOME PAGE

10.3- TIMETABLE

Here, user can get the access of course-wise detailed timetable. User get to know about on which day and what time the classes are scheduled.

UMS - Timetable

Time	Monday	Tuesday	Wednessday	Thursday	Friday	Saturday
09-10AM	CSE202	MTH166	MTH166	CSE202	2	MEC107
10-11AM	CSE202	=	-	CSE202	MEC107	MEC107
11-12AM	-	ECE216	Ę	÷.	8	E .
12-01PM	MTH166	ECE216	-	CHE110	-	CHE110
01-02PM	ECE213	-	-	÷	PEL121	-
02-03PM		ECE213	ECE213	MEC107		-
03-04PM	MEC107	PEL121	PEL121	ECE213 CSE326		-
04-05PM	7.99	-		MTH166	CSE326	

FIGURE 4- TIMETABLE

10.4- EXAMINATION SCHEDULE

On this page, user got the all information regarding the examination. User will know about everything related to exam Subject, Date, Timing, Platform.

Examination





FIGURE 5- EXAM SCHEDULE

10.5- Change Password

In case, user forgot about the password of their user ID required for the login credentials. They can here change the password of ID.

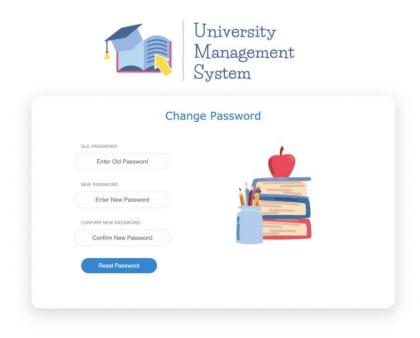


FIGURE 6- CHANGE PASSWORD

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11- SOURCE CODE:

```
<html>
 <head>
   <title>Sign in</title>
   <link rel="stylesheet" href="SignIn.css" />
 </head>
 <body>
   <img class="outside" src="logo.png" alt="umsLogo" />
   <div class="main">
     Sign in
     <form>
      <div class="align">
        UMS ID
        <input type="text" placeholder="Enter your Username" required />
        PASSWORD
        <input type="password" placeholder="Enter your Password" required />
        <span class="a">
          <a class="signIn" href="../Home/Home.html">Sign in</a>
          <a href="#"></a>Forgot Password?
        </span>
       </div>
       <img class="inside" src="books.png" alt="booksImage" />
   </div>
 </body>
</html>
```

```
<html>
 <head>
   <title>UMS | Home</title>
   <link rel="stylesheet" href="home.css" />
 </head>
 <body>
   <header>
     <img class="h1" src="logo.png" alt="logo" />
     <hl class="h1">
       Univesity Management System
       <hr />
     </h1>
   </header>
   <nav class="n1">
     <a href="#">Academic</a>
     <a href="#">Administrative</a>
     <a href="#">Important Links</a>
     <a href="#">Student Services</a>
     <a href="#">Ouick Links</a>
   </nav>
   <nav>
     <a class="n2" href="#">Home</a>
     <a class="n2" href="../Timetable/Timetable.html" target=" blank"
       >Timetable</a
     <a class="n2" href="../Examination/exam.html" target=" blank"
       >Examination</a
     <a class="n2" href="#">Fee Transactions</a>
     <a class="n2" href="../Sign In:Reset/changePassword.html" target=" blank"</pre>
       >Change Password</a
   </nav>
   <div class="main">
     <div class="align">
       <div class="profile">
         <img class="profilepic" src="Profile.png" alt="profileImage" />
         <hr />
         <b>Sarvesh Kumar</b>
         Roll No - RK20KR001
         Programme - B.Tech.(Computer Science & Engineering)
         Reg No - 12001122
         <a class="n2" href="../Sign In:Reset/logIn.html">Log Out</a>
       </div>
       <div class="attendence">
         <h2>My Courses & Attendence - 100%</h2>
         <hr />
         MTH166:Differential Equations & Vector Calculus - 100%
         <hr />
         CSE326:Internet Development - 100%
```

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```
CSE326:Internet Development - 100%
      <hr />
      CSE202:Object Oriented Programing - 100%
      <hr />
      MEC107:ENGINEERING MECHANICS - 100%
      <hr />
      ECE213:DIGITAL ELECTRONICS - 100%
      PEL121:COMMUNICATION SKILLS-I - 100%
    </div>
  </div>
  <div class="Academic">
    <h2>Upcomming Events</h2>
    <hr />
    <h4>Career Summit by Student Organization AIESEC</h4>
    >
      Student Organization AIESEC under the aegis of Division of Student
      Welfare is organizing Career Summit. Career Summit is a premier virtual
      event wherein the platform helps us bring together both young and
      senior industry leaders to form a diverse cross-sector and
      multi-generational space for attendees to select the right career
      field and give them insight into the real world. It is an event where
      inspiration and collaboration together result in execution. Through
      career summit, these students will experience various career options
      available in the job market and be better capable to pick their
      passion and career in one row. This event will feature various
      segments, from counselling sessions aptitude tests, do's and don'ts of
      resume and interviews to a fun space in the speaker's stage where
      renowned industrial leaders guide the youth attendees. Career summit
      is one of the most impacted experiences not only for the attendees for
      also the volunteers delivering the event.
    </div>
  <div class="Academic">
    <h2>My Messages</h2>
    <hr />
    >
      Student Organization AIESEC under the aegis of Division of Student
      Welfare is organizing Career Summit. Career Summit is a premier virtual
      event wherein the platform helps us bring together both young and
      senior industry leaders to form a diverse cross-sector and
      multi-generational space for attendees to select the right career
      field and give them insight into the real world. It is an event where
      inspiration and collaboration together result in execution. Through
      career summit, these students will experience various career options
      available in the job market and be better capable to pick their
      passion and career in one row. This event will feature various
      segments, from counselling sessions aptitude tests, do's and don'ts of
      resume and interviews to a fun space in the speaker's stage where
      renowned industrial leaders guide the youth attendees. Career summit
      is one of the most impacted experiences not only for the attendees for
      also the volunteers delivering the event.
       <span>Contact No : 000-111-2222 </span>
     </footer>
   </div>
  </body>
</html>
```

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```
</div>
 <div class="Academic">
   <h2>Assignments</h2>
   <hr />
   <b> CSE326 :</b> Create University Management System.
   <button>Upload</putton>
 </div>
  <div class="anouncement">
   <h2>Anouncement</h2>
   <h4>Ums Global: Credit Transfer option for the Ums students</h4>
   Apr 17,2021
   >
     Division of International Affairs brings great opportunity for the Ums
     students who want to get their credits transferred to partner foreign
     Universities in Canada, USA, UK, Australia & Dubai etc. Under credit
     transfer the students will be doing the following programs
   >
     · 2 years at Ums and rest 2/2.5 years at partner foreign university in
     case of Bachelor's degree
   · 1 year at Ums and rest 1/1.5 year at partner Foreign university in
     case of Master's degree
   >
     and eventually get degree from partner foreign university after
     successful completion of the program in the foreign University.
    Benefits:
    Students are allowed to work 20 hours per week while studying.
     · Students can easily cover their living expenses with earnings from
     part time job
   >
     · Students get PSWR (Post Study Work Rights) after successful
     completion of the program at foreign University
   >
     · Cost Effective- Students can save their 50% of money as they would
     be paying 2 years fees only rather than 4 years fees
   Opportunity to be global citizen
   Option of PAID industrial training at United Kingdom
 </div>
</div>
<div class="foot">
```

University Management System |

Email : xyz@gmail.com |

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<hr /> <footer>

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```
<html>
 <head>
  <title>UMS | Timetable</title>
  <link rel="stylesheet" href="table.css" /:</pre>
 </head>
 <body>
  <h1>
   UMS - Timetable
   <hr />
  </h1>
  <thead>
    Time
     Monday
     Tuesday
     Wednessday
     Thursday
     Friday
     Saturday
    </thead>
   09-10AM
     CSE202
     MTH166
     MTH166
     CSE202
     -
     MEC107
    10-11AM
     CSE202
     -
     -
     CSE202
     MEC107
     MEC107
    11-12AM
     -
     ECE216
     -
     -
     -
     -
```

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```
12-01PM
  MTH166
  ECE216
  -
  CHE110
  -
  CHE110
  01-02PM
  ECE213
  -
  -
  -
  PEL121
  -
  02-03PM
  -
  ECE213
  ECE213
  MEC107
  -
  -
  03-04PM
  MEC107
  PEL121
  PEL121
  ECE213
  CSE326
  -
  04-05PM
  -
  -
  -
  MTH166
  CSE326
  -
  </body>
```

</html>

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```
<html>
 <head>
   <title>UMS | Examination</title>
   <link rel="stylesheet" href="exam.css" />
 <body>
   <h1>
    Examination
    <hr />
   </h1>
   <div class="align">
    <img src="exam.png" alt="examLogo" />
    <div class="exam">
      <b>MTH166 : </b>Date - 12/02/21 <br />Platform : Myclass.ums.in<br/>fimings : 10:00AM-11:30AM
      <hr>>
      <b>CSE326 : </b>Date - 14/02/21 <br />Platform : Myclass.ums.in<br/>fimings : 10:00AM-11:30AM
      <b>CSE202 : </b>Date - 16/02/21 <br />Platform : Myclass.ums.in<br/>in<br/>Timings : 10:00AM-11:30AM
      <hr>
      <b>PEL121 : </b>Date - 18/02/21 <br />Platform : Myclass.ums.in<br/>fimings : 10:00AM-11:30AM
      MEC107 : </b>Date - 20/02/21 <br />Platform : Myclass.ums.in<br/>br>Timings : 10:00AM-11:30AM
      <hr>
      <b>ECE213 : </b>Date - 22/02/21 <br />Platform : Myclass.ums.in<br/>in<br/>Timings : 10:00AM-11:30AM
      <b>CHE110 : </b>Date - 24/02/21 <br />Platform : Myclass.ums.in<br/>fimings : 10:00AM-11:30AM
    </div>
   </div>
 </body>
</html>
<html>
  <head>
    <title>UMS | Change Password</title>
    <link rel="stylesheet" href="SignIn.css" />
  </head>
  <body>
    <img class="outside" src="logo.png" alt="umsLogo" />
    <div class="main">
       Change Password
       <form>
         <div class="align">
           OLD PASSWORD
           <input type="password" placeholder="Enter Old Password" required />
           NEW PASSWORD
           <input type="password" placeholder="Enter New Password" required />
           CONFIRM NEW PASSWORD
           <input type="password" placeholder="Confirm New Password" required />
           <button onclick="window.alert('Password Changed Successfully!')">
             Reset Password
           </button>
         <img class="inside" src="books.png" alt="booksImage" />
       </form>
    </div>
  </body>
</html>
```

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12- CONCLUSION:

Great skills have been achieved during the development of this project, time management being one of them, research in various areas of web and database development and at the end of the day it can be said that the task has been a great success incorporated with extraordinary challenges. These experiences will be used for ever. My project is a fundamental approach of these. We develop the project "University Management System". The project titled "University Management System" can be adopted by any university or similar institution to meet their current management demand with the features presented here. The system is very easy to use, economic, reliable, and flexible. Operators can easily add new features, modules, forms, and components as per university requirement in future.

13- REFERENCE:

For website styling and arrangements, we refer the UMS system of LPU.