Micro Project Report On

Department Management System

Diploma Computer Engineering Semester 4

(Introduction to Web Development - 4340704)

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Scope of the project

The Department Management System (DMS) includes user management, event tracking, practical submission, subject assignments, attendance management, result management, and e-notice board. It is designed to be adaptive to the specific requirements of faculty, and students, creating a unified and accessible user interface. The system's functionality covers a wide range of academic and administrative processes, ensuring a holistic solution for the college community.

- → Abstract of Project: DMS is a web-based solution crafted to simplify and enhance the management processes within educational institutions. This system caters to the unique needs of administrators, faculty, and students, offering a user-friendly platform for streamlined administrative tasks and improved communication. From handling attendance records to facilitating practical submissions and collaborative e-notice boards, the system aims to provide a comprehensive solution that fosters efficiency and transparency in the academic environment.
- → Need of System: This need arises from the increasing complexity of administrative tasks within educational institutes. With a growing number of students, faculty, and events, there is a need for a centralized and efficient system to manage these tasks and improve communication between administration, faculty, and students.

Functional Requirements of the system

DMS is distributed in 2 types of user which all has different functionalities to perform and has a different rights over the system users are Faculty and Student . Functional Requirements are listed below as per the use

→ Faculty:

- Take Attendance.
- Manage Practical Submissions (Add, Verify, Reupload).
- Add Tasks for Practical Submissions.
- Check Practical Submissions and Verify.
- Manage Results (Add, Update).
- View Own Data.

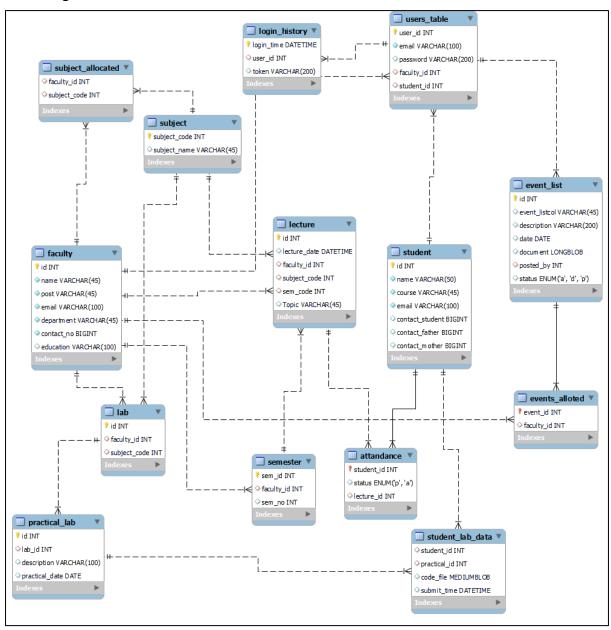
→ Student:

- Submit Practical.
- View Attendance.
- View Results.
- View Notice Board.
- Post on Notice Board (Approval needed).

Entity-Relationship Diagram

ER diagram :- An Entity-Relationship (ER) diagram is a graphical representation used to depict the relationships between entities (important things) in a database system. It visually portrays how data is organized within a database, focusing on the entities, their attributes (descriptive details), and the connections between them.

→ ER diagram of DMS



Code of Project

```
header("Access-Control-Allow-Origin: http://localhost:4200");
header("Access-Control-Allow-Methods: GET, POST, OPTIONS");
header("Access-Control-Allow-Credentials: true");
header("Content-Type:aplication/json");
include "./db.php";
include "./vendor/autoload.php";
$facid=$_REQUEST['fac_id'];
$subject=$_REQUEST['subject'];
$batch=$_REQUEST['batch'];
$division=$_REQUEST['division'];
$description=$ REQUEST['topic'];
$currentDate = date("Y-m-d");
$result=$conn->query("select subject_code from subject where subject_name='$subject'");
    while($row=$result->fetch_assoc()){
    $subjectid=$row['subject_code'];
    echo json_encode(array("message"=>"Unwanted Error Happens!!!","status"=>500));
$labid=0;
   $labid=$conn->insert_id;
    echo json_encode(array("message"=>"Unwanted Error Happens!!!","status"=>500));
$practicalid=0;
.
*result=$conn-oquery("insert into practical_lab (lab_id,description,practical_date) values('$labid','$description','$currentDate')");
if($result){
    $practicalid=$conn->insert_id;
    echo json_encode(array("message"=>"Unwanted Error Happens!!!","status"=>500));
echo json encode(['message'=>'Practical added successfully','status'=>200,'data'=>$practicalid]);
```

```
header("Access-Control-Allow-Origin: http://localhost:4200");
     header("Access-Control-Allow-Methods: GET, POST, OPTIONS");
     header("Access-Control-Allow-Headers: Content-Type, Authorization");
     header("Access-Control-Allow-Credentials: true");
     $requesturi=strtok($_SERVER['REQUEST_URI'],'?');
     $routes=[
         "/department_app/department-core/student/updatepracticaldata"=>"./student/updatepracticaldata.php",
         "/department_app/department-core/practical/checkedpractical"=>"./faculty/practicalcheckeddata.php",
         "/department_app/department-core/faculty/getpracticaldata"=>"./faculty/getpracticalrecord.php",
         "/department_app/department-core/student/addpracticaldata"=>"./student/addpracticaldata.php",
         "/department_app/department-core/student/getpractical"=>"./student/getpractical.php",
         "/department_app/department-core/student/getattandancedata"=>"./student/getdata.php"
         "/department app/department-core/faculty/addpractical"=>"./faculty/addpractical.php",
         "/department_app/department-core/faculty/getdata"=>"./faculty/getdata.php",
         "/department_app/department-core/faculty/showattandance"=>"./faculty/showattandance.php",
          "/department_app/department-core/faculty/put_attandance_data"=>"./faculty/record_attandance.php",
         "/department_app/department-core/auth/login"=>"./auth/login.php",
         "/department_app/department-core/faculty/get_attandance_data"=>"./faculty/getattandancedata.php"
     if(isset($routes[$requesturi])){
         include $routes[$requesturi];
         echo "404 not found";
 ?>0
use Firebase\JWT\JWT;
$username=$_REQUEST['userid'];
$password=md5($_REQUEST['password']);
$sql="select * from users_table where user_id=$username";
$result=$conn->query($sq1);
if($result->num_rows>0){
    while($row=$result->fetch_assoc()){
        if($row['password']==$password){
            $issued=time();
            $exp=$issued+(60*60);
            $payload=[
                 "iat"=>$issued,
                 .
"exp"=>$exp,
                 "userid"=>$username,
                 "keypass"=>encryptData("bhargavdev123456789")
            $tok=JWT::encode($payload,$secretkey,'HS512');
            $res=json_encode([
                "status"=>"200",
                "msg"=>"user_founded",
                 "authstatus"=>true,
                "usertype"=>$row['user_type'],
                 "token"=>$tok,
                 "userid"=>$username
            echo $res;
            echo json_encode(array(
                 "status"=>"400",
                 "msg"=>"password_doesn't_match",
                "authstatus"=>false,
                "usertype"=>"",
                "token"=>"".
                 "userid"=>""));
    echo json_encode(array("status"=>"401",
        "msg"=>"user_not_found",
        "authstatus"=>false,
        "usertype"=>"",
        "token"=>"",
"userid"=>""
```

```
m updatepracticaldata.php > ...
php
header("Access-Control.Allow-Origin: http://localhost:4200");
header("Access-Control.Allow-Origin: http://localhost:4200");
header("Access-Control.Allow-Origin: http://localhost:4200");
header("Content-Type:application/json");
include "./Wendor/autoload.php";
include "./Wendor/autoload.php";
if(isset(SRQUEST) "studentid"), S.REQUEST[*practicalid'];
$file_location = $.FRQUEST[*studentid'];
$file_location
```

```
ddopracticaldataphp >...

**Addopracticaldataphp >...

**Addopractica
```

```
$facultyid=$_REQUEST['faculty_id'];
$subject=$_REQUEST['subject'];
$batch=$_REQUEST['batch'];
$subjectid=0;
$result=$conn->query("select subject_code from subject where subject_name='$subject'");
if($result->num_rows >0 ){
    while($row=$result->fetch_assoc()){{
       $subjectid=$row['subject_code'];
    echo json_encode(array("message"=>"Unwanted Error Happens!!!","status"=>500));
       s.name AS student_name,
       s.contact_father AS fathernumber,
        a.student_id AS student_id,
       1.lecture_date AS lecturedate,
       a.lecture_id AS lecture_id,
       1.Topic AS topic
       attandance a
       student s ON a.student id = s.id
       lecture 1 ON a.lecture_id = 1.id
       AND 1.sem_code = $batch";
$result=$conn->query($sq1);
if($result->num_rows > 0){
   while($row=$result->fetch_assoc()){
        array_push($lecturedata,["name"=>$row['student_name'],"student_id"=>$row['student_id'],"lecture_id"=>$row['lecture_id']
    echo json_encode(["message"=>"Data has sented successfully","data"=>$lecturedata,"status"=>200]);
    echo json_encode(array("message"=>"Unwanted Error Happens!!!","status"=>500));
```

```
memoral disselectorial Allow-Credentials: true");
headen("Content-Type:aplication/jsom");
include "./wondor/autoload.php";
include "
```

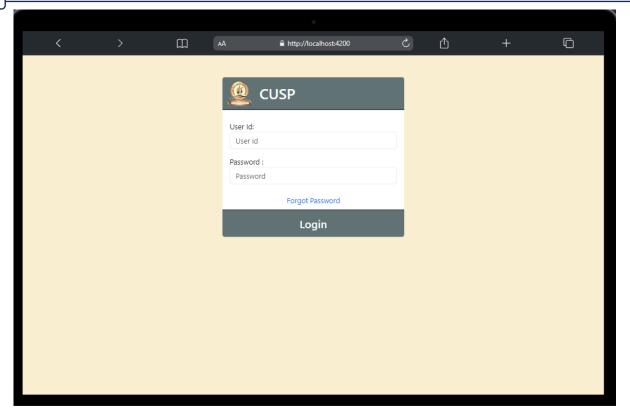
```
🤲 getpractical.php 🗦 ...
  $studentid=$ REQUEST['studentid'];
  $sq1="
      SELECT
          s.id AS student id,
          pl.description AS practical_description,
          pl.practical_date,
          pl.id AS practical_id,
          f.name AS faculty_name,
          sub.subject_name AS subject_name
      FROM
          student s
      JOIN
          lab ON s.sem_id = lab.sem_code AND s.division = lab.division
      LEFT JOIN
          practical_lab pl ON lab.id = pl.lab_id
      LEFT JOIN
          faculty f ON lab.faculty_id = f.id
      LEFT JOIN
          subject sub ON lab.subject_code = sub.subject_code
      WHERE
          s.id = '$studentid';
  $practicals=array();
  $result=$conn->query($sq1);
  if($result->num rows>0){
      while($row=$result->fetch_assoc()){
          $data=[
              "description"=>$row['practical_description'],
              "id"=>$row['practical_id'],
              "date"=>$row['practical_date'],
              "faculty"=>$row['faculty_name'],
              "subject"=>$row['subject_name']
          array_push($practicals,$data);
      $data=["status"=>500,"message"=>"attandance not found"];
      echo json encode($data);
  $practicaldata=array();
  $sql="select * from student_lab_data where student_id='$studentid'";
  $result=$conn->query($sq1);
  if($result->num_rows>0){
      while($row=$result->fetch_assoc()){
```

```
$studentid=$_REQUEST['studentid'];
$result=$conn->query("select * from student where id=".$studentid);
if($result->num_rows <= 0){</pre>
    $data=["status"=>404,"message"=>"Invalid Id or not a registered Student"];
$attandance=array();
sq1 =
   SELECT lecture.id ,attandance.status, lecture.lecture_date, subject_subject_name, lecture.Topic, faculty.name AS faculty_name
    JOIN lecture ON attandance.lecture_id = lecture.id
   JOIN faculty ON lecture.faculty_id = faculty.id
WHERE attandance.student_id = '$studentid';
$result=$conn->query($sq1);
if($result->num_rows>0){
   while($row=$result->fetch_assoc()){
       $dat=[
"id"=>$row['id'],
            "date"=>$row['lecture_date'],
"subject_name"=>$row['subject_name'],
            "topic"=>$row['Topic'],
"faculty_name"=>$row['faculty_name']
   $data=["status"=>500,"message"=>"attandance not found"];
   SELECT lecture.id, lecture.lecture_date, lecture.Topic, subject.subject_name, faculty.name AS faculty_name
   FROM lecture
   JOIN subject ON lecture.subject_code = subject.subject_code
JOIN faculty ON lecture.faculty_id = faculty.id
   WHERE lecture.sem_code = (
SELECT sem_id FROM student WHERE id = 100001
if($result->num_rows>0){
    while($row=$result->fetch assoc()){
          $data=[
               "description"=>$row['practical_description'],
               "id"=>$row['practical_id'],
               "date"=>$row['practical_date'],
               "faculty"=>$row['faculty_name'],
"subject"=>$row['subject_name']
          array_push($practicals,$data);
     $data=["status"=>500,"message"=>"attandance not found"];
     echo json_encode($data);
$practicaldata=array();
$sql="select * from student_lab_data where student_id='$studentid'";
$result=$conn->query($sq1);
if($result->num_rows>0){
     while($row=$result->fetch_assoc()){
          $data=[
                "practical_id"=>$row['practical_id'],
               "code_file"=>base64_encode($row['code_file']),
               "submit_date"=>$row['submit_time'],
               "reply"=>$row['reply'],
"status"=>$row['valid']
          array_push($practicaldata,$data);
echo json_encode(['status'=>200, "practicallist"=>$practicals, "practicalsubmitted"=>$practicaldata]);
```

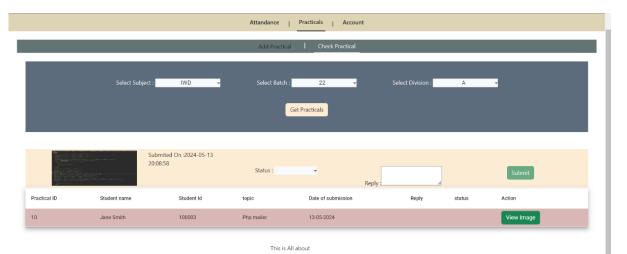
```
getpracticalrecord.php > ..
   $batch=$_REQUEST['batch'];
   $subject=$_REQUEST['subject'];
   $faculty=$_REQUEST['faculty_id'];
   $division=$_REQUEST['division'];
   $sq1="
       SELECT
           sl.student_id AS id,
           pl.id AS practical_id,
           pl.description AS topic,
           st.name AS student name,
           sl.code file AS file,
           sl.submit_time AS submit_date,
           sl.valid AS status,
           sl.reply AS reply
       FROM
           student_lab_data sl
       JOIN
           practical_lab pl ON sl.practical_id = pl.id
       JOIN
           lab 1 ON pl.lab_id = l.id
       JOIN
           subject s ON 1.subject_code = s.subject_code
       JOIN
           student st ON sl.student_id = st.id
       WHERE
           s.subject_code = (SELECT subject_code FROM subject WHERE subject_name = '$subject')
           AND 1.faculty_id = $faculty
           AND 1.sem_code = $batch
           AND 1.division = '$division';
   $records=array();
   $result=$conn->query($sq1);
   if($result->num_rows>0){
       while($row=$result->fetch_assoc()){
           $data=[
               "student_id"=>$row['id'],
               "practical_id"=>$row['practical_id'],
               "topic"=>$row['topic'],
               "file"=>base64_encode($row['file']),
               "student_name"=>$row['student_name'],
               "submit_date"=>$row['submit_date'],
               "status"=>$row['status'],
               "reply"=>$row['reply']
           array_push($records,$data);
```

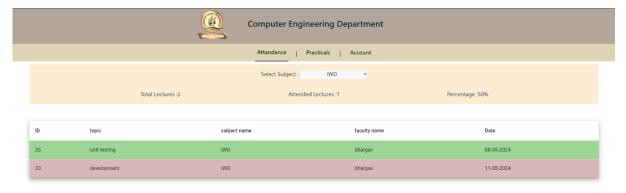
```
$studentid=$_REQUEST['studentid'];
$result=$conn->query("select * from student where id=".$studentid);
if($result->num_rows <= 0){</pre>
    $data=["status"=>404,"message"=>"Invalid Id or not a registered Student"];
$attandance=array();
sq1 =
    SELECT lecture.id ,attandance.status, lecture.lecture_date, subject_subject_name, lecture.Topic, faculty.name AS faculty_name
    JOIN lecture ON attandance.lecture_id = lecture.id
    JOIN faculty ON lecture.faculty_id = faculty.id
WHERE attandance.student_id = '$studentid';
if($result->num_rows>0){
    while($row=$result->fetch_assoc()){
       $dat=[
"id"=>$row['id'],
            "date"=>$row['lecture_date'],
"subject_name"=>$row['subject_name'],
            "topic"=>$row['Topic'],
"faculty_name"=>$row['faculty_name']
    $data=["status"=>500,"message"=>"attandance not found"];
    SELECT lecture.id, lecture.lecture_date, lecture.Topic, subject.subject_name, faculty.name AS faculty_name
    FROM lecture
    JOIN subject ON lecture.subject_code = subject.subject_code
JOIN faculty ON lecture.faculty_id = faculty.id
    WHERE lecture.sem_code = (
        SELECT sem_id FROM student WHERE id = 100001
  $lecture=array();
      SELECT lecture.id, lecture.lecture_date, lecture.Topic, subject.subject_name, faculty.name AS faculty_name
      FROM lecture
       JOIN subject ON lecture.subject_code = subject.subject_code
       JOIN faculty ON lecture.faculty_id = faculty.id
      WHERE lecture.sem_code = (
            SELECT sem_id FROM student WHERE id = 100001
      AND lecture.division = (
            SELECT division FROM student WHERE id = 100001
  $result=$conn->query($sq1);
  if($result->num rows>0){
      while($row=$result->fetch_assoc()){
            $data=[
                "id"=>$row['id'],
                "date"=>$row['lecture_date'],
                "topic"=>$row['Topic'],
"subject_name"=>$row['subject_name'],
"faculty_name"=>$row['faculty_name']
            array_push($lecture,$data);
      $data=["status"=>500,"message"=>"lectures not found"];
      echo json_encode($data);
  $data=["status"=>200,"attandance"=>$attandance,"lectures"=>$lecture,"message"=>""];
```

Output

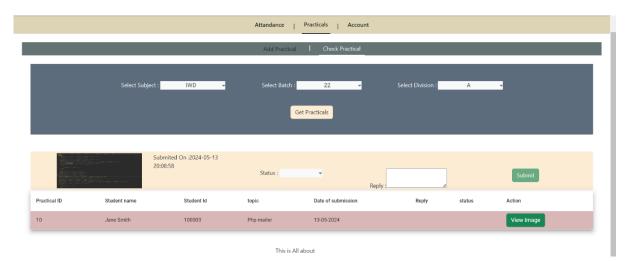


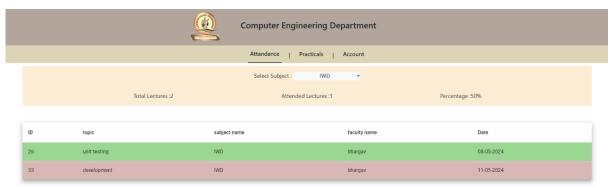




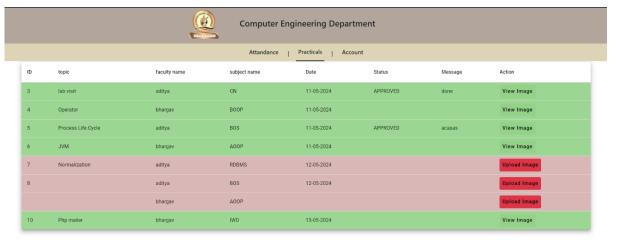


This is All about



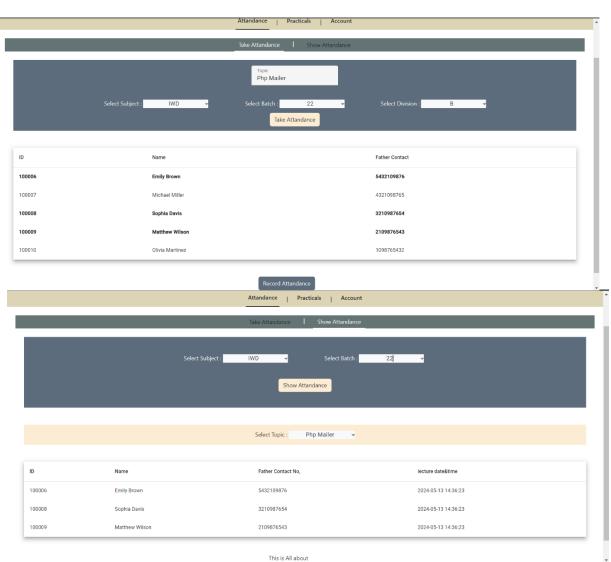


This is All about



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References & Tools

- → Websites & Apps :-
 - https://www.geeksforgeeks.org/software-engineering/
 - https://online.visual-paradigm.com/diagrams/
 - https://app.creately.com/d/start/dashboard
 - https://www.edrawmax.com/online-data-flow-diagram-maker.html
 - https://www.w3schools.com/php/