

CO226 Database Systems

Project Demonstration

Group Members:

HERATH H.M.M.E.W.L. (E/15/123)

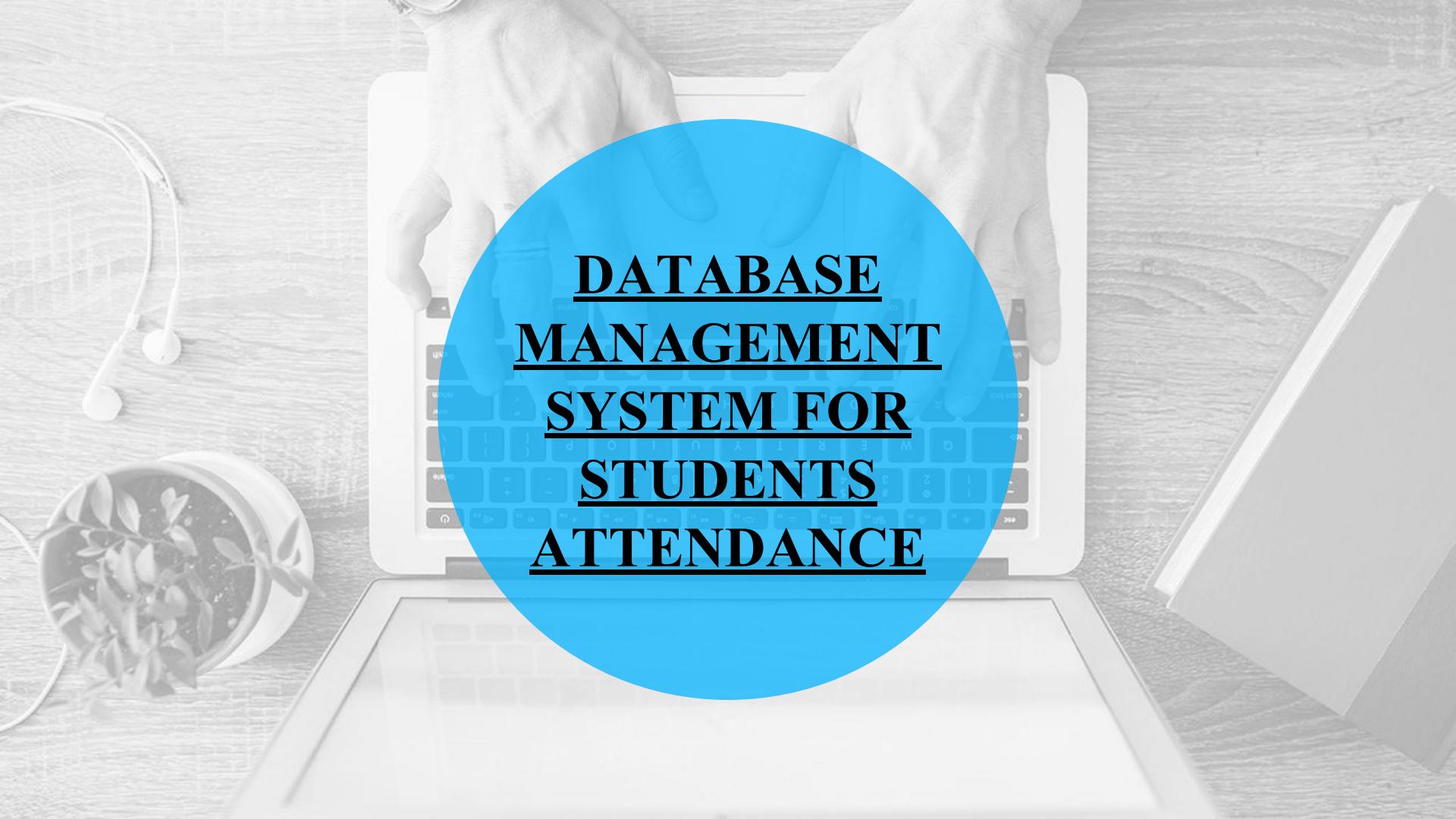
IRFAN M.M.M. (E/15/138)

JALIYAGODA A.J.N.M. (E/15/140)

RISHIKESHAN L. (E/15/307)

**When your absence
doesn't alter your life**

**then your presence
has no meaning in it.**



DATABASE **MANAGEMENT** **SYSTEM FOR** **STUDENTS** **ATTENDANCE**



OUTLINE OF THE PROJECT PLAN

We followed the System Development Life Cycle

1. Project Initialization
2. Feasibility Analysis
3. Requirement Collection
4. Design
5. Implementation
6. Testing
7. Evaluation



1) Project Initialization

Paid attention to students problems which may small but can result in BIG issues.

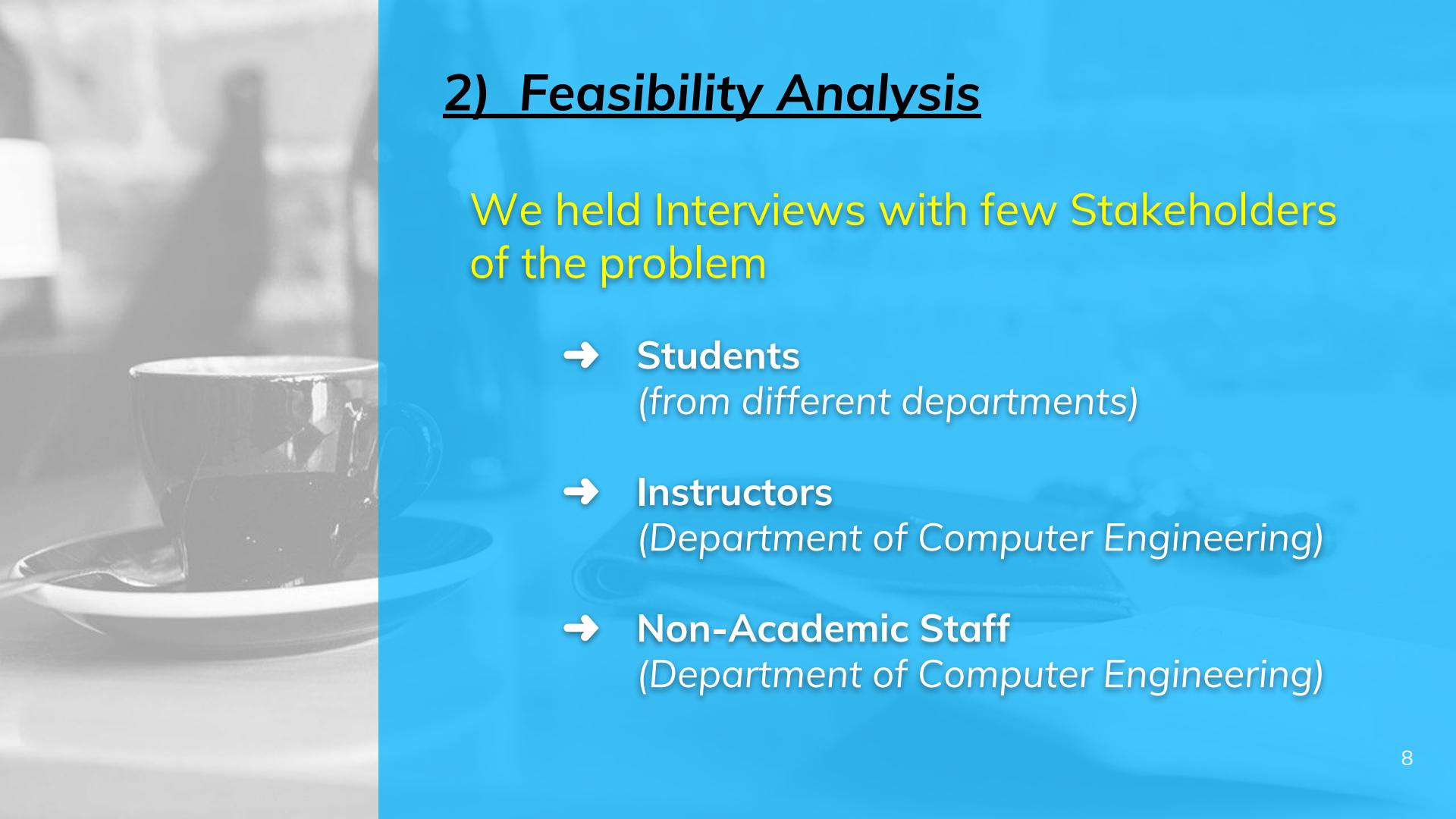
Figure out the issue
In STUDENT
ATTENDANCE



PROBLEMS

On Student attendance...

- No idea about the current attendance percentage
- Students get notified lately about their low attendance
- Currently, rescheduling process takes a lot more time



2) Feasibility Analysis

We held Interviews with few Stakeholders of the problem

- **Students**
(from different departments)
- **Instructors**
(Department of Computer Engineering)
- **Non-Academic Staff**
(Department of Computer Engineering)

3) Requirement Collection

From interview data, we listed the required features.

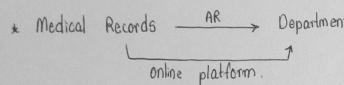
Reply from Mrs. Priyangan

2018/12/12 10:40 AM.

1. No proper system. Using excel sheets
2. Problems :
 - Signatures are not in ascending order , v
 - If it is structured signing sheet,
hard to enter data when exist multi
3. Attendance sheets will be received in different
(daily, weekly and sometimes a set of sh)
- * Kamalanath sir was suggested an device or

Student feedbacks

2018/12/11 12:30 - 1:15 PM.



- * In some departments, rescheduled test labs were informed on noticeboard.
- * Some students are working on 8 subjects.
- * Requested to implement 'online rescheduling request' feature.
- * In EE , missed labs can be exchanged with someone in other group

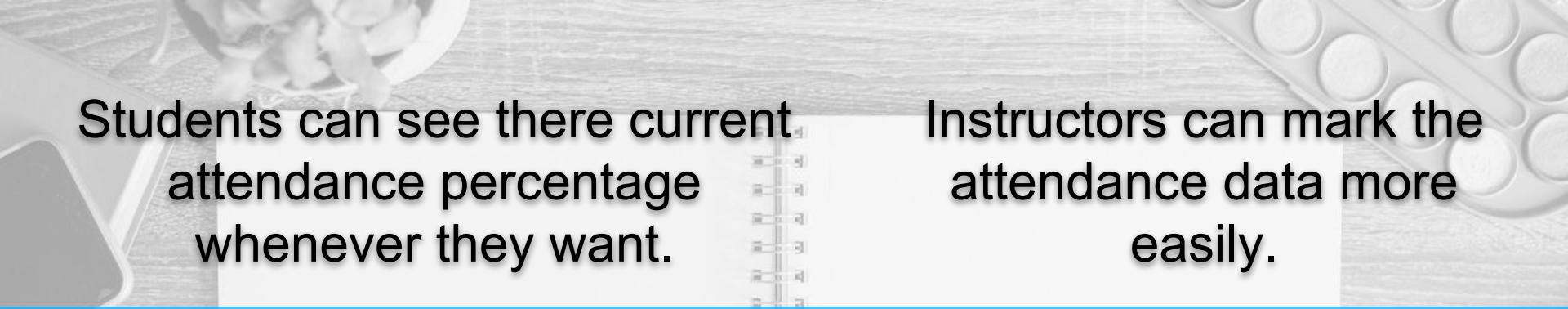
Solution!

Created a online
DBMS for the
Students
Attendance

6 Kom

Targeting Goals

Providing solutions for the
problems existing on
attendance

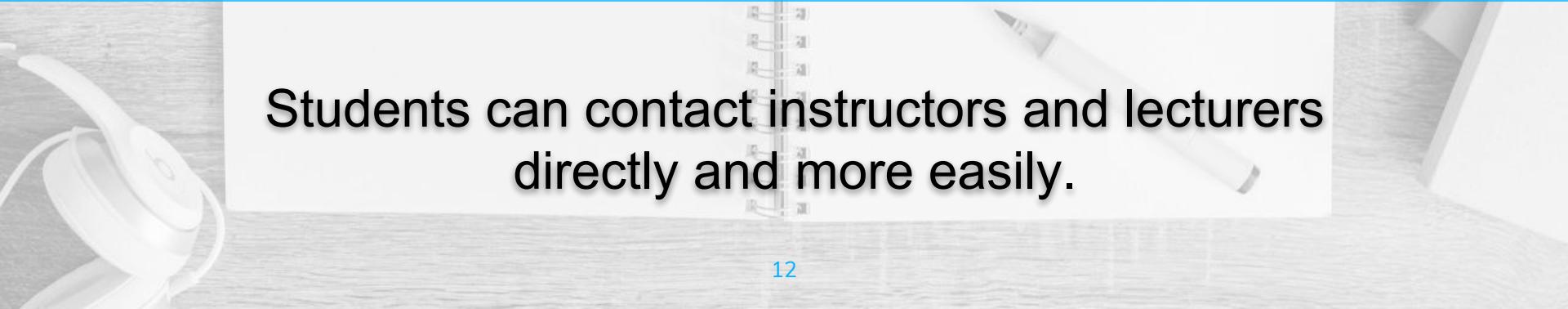


Students can see their current attendance percentage whenever they want.

Instructors can mark the attendance data more easily.

MISSION

Reduce the existing problems on attendance which may cause to launch serious actions.



Students can contact instructors and lecturers directly and more easily.

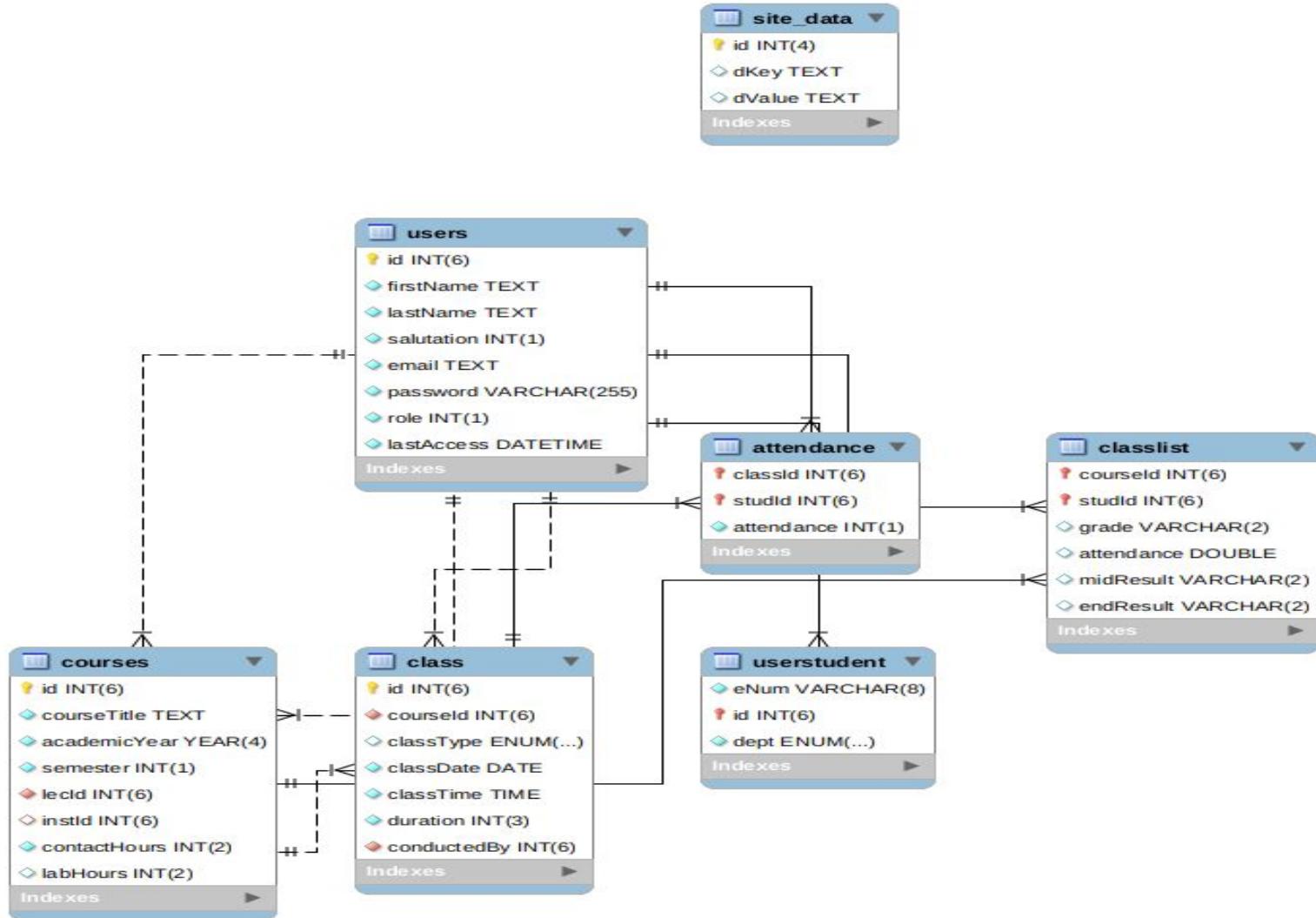


4) Design

- **Online Web Portal**
- **Users can login into his/her account using a password**
- **5 Privilege Levels**
 - **Students**
 - **Lecturers**
 - **Instructors**
 - **Data Entry**
 - **Administrators**

Let's see how we
implemented our
design





```
// User Related Functions ----

function newUser($firstName, $lastName, $salutation, $email, $password, $role, $lastAccess)
{
    $firstName = $this->sqlSafe($firstName);
    $lastName = $this->sqlSafe($lastName);
    $email = $this->sqlSafe($email);

    $sql = "INSERT INTO `users` (`firstName`, `lastName`, `salutation`, `email`, `password`, `role`, `lastAccess`)
            VALUES ( '$firstName', '$lastName', '$salutation','$email', '$password', '$role', '$lastAccess')";
    return $this->mysqli->query($sql);
}

function getUserId_byEmail($email)
{
    $sql = "SELECT `id` FROM `users` WHERE `email` LIKE '$email'";
    $result = $this->mysqli->query($sql);
    $row = $result->fetch_assoc();
    $res = $row['id'];
    return $res;
}
```

```
// Class Related Functions ----

function newClass($courseId, $classType, $date, $time, $duration, $conductBy)
{
    $sql = "INSERT INTO `co226`.`class` (`courseId`, `classType`, `classDate`, `classTime`, `duration`, `conductedBy`)
            VALUES ('$courseId', '$classType', '$date', '$time', '$duration', '$conductBy');";
    return $this->mysqli->query($sql);
}

function listClass($field)
{
    $sql = "SELECT * FROM `co226`.`class` WHERE 1;";
    return $this->listRows($sql, $field);
}

function listClass_byCourse($courseId, $field)
{
    $sql = "SELECT * FROM `co226`.`class` WHERE `courseId` LIKE $courseId";
    return $this->listRows($sql, $field);
}

function getClassData($classId)
{
    $sql = "SELECT * FROM `co226`.`class` WHERE `class`.`id` LIKE '$classId';";
    return $this->getDataRow($sql);
}
```

```
function setCourseAttendance($courseId, $studentId, $value)
{
    $sql = "UPDATE `classlist` SET `attendance` = '$value' WHERE `courseId` = $courseId AND `studId` = $studentId";
    return ($this->mysqli->query($sql) == TRUE);
}

function listStudentsNotInClassList($courseId)
{
    $sql = "SELECT * FROM `userstudent` WHERE `id` NOT IN (select `studId` from classlist where `courseId`='$courseId') ";
    return $this->listWholeRows($sql);
}

function listStudentsInClassList($courseId)
{
    $sql = "SELECT * FROM `userstudent` WHERE `id` IN (select `studId` from classlist where `courseId`='$courseId') ";
    return $this->listWholeRows($sql);
}
```

```
<table class="w3-table w3-bordered w3-striped w3-border">
  <thead>
    <tr>
      <th><a href="javascript:void()" onclick="selectAll('NotIn')"
           class="w3-hover-opacity">Select</a></th>
      <th>ENumber</th>
      <th>Name</th>
    </tr>
  </thead>
  <tbody>
    <?php
      $students = $db->listStudentsNotInClassList($courseId);
      foreach ($students as $student) {
        print "<tr id=" . $student['id'] . "><td><input class='NotIn' type='checkbox' /> </td>"
```

You can visit the site now

<https://co224.tk/>



Online
Attendance
Portal

CO226 Project

[Access Now](#)



Online Attendance Portal

Email

Enter your email here

Password

Enter your password here

Login

Online Attendance Portal - Faculty of Engineering, University of Peradeniya
Student's Perspective



My Courses (Semester)

CO224 - Computer Architecture

85.71%

CO225 - Software Construction

100%

CO226 - Database Systems

95%

EE285 - Electronics I

85%

EM314 - Numerical Methods

78.45%

Not enough
attendance
percentage

Services

Submit an Absent

Submit a Medical

Reschedule a Lab Class

Can inform a reason for an absent
(Ex: Competition, Match, Sick,
etc...)

Can submit a
medical for sick
from here

Warning !

Can request a
reschedule for a
missed lab class from
here.



CO224 - Computer Architecture

Lecturer In-charge: Dr. Mr. Roshan G. Ragel

Instructor In-charge: Miss Thilini Dahanayaka

| Type | Date and Time | Conducted by | |
|---------|-----------------------------------|-------------------------|---------|
| Lab | 2019-01-14 15:10:00 (120 mins) | Miss Thilini Dahanayaka | N/A |
| Lecture | 2019-01-14 08:55:00 (120 mins) | Dr. Mr. Isuru Nawinne | Absent |
| Lecture | 2019-01-11 08:55:00 (60 mins) | Dr. Mr. Isuru Nawinne | Present |
| Lab | 2019-01-07 15:10:00 (120 mins) | Dr. Mr. Isuru Nawinne | Present |
| Lecture | 2019-01-07 08:55:00 (120 mins) | Dr. Mr. Isuru Nawinne | Present |
| Lecture | 2019-01-04 08:55:00 (60 mins) | Dr. Mr. Isuru Nawinne | Present |
| Lab | 2019-12-31 15:10:00 (120 mins) | Miss Thilini Dahanayaka | Present |



Online Attendance Portal

Email

Enter your email here

Password

Enter your password here

Login

Online Attendance Portal - Faculty of Engineering, University of Peradeniya
Lecturer's / Instructor's Perspective



Attendance (Semester 4, Lecturer/Instructor View)

CO225 - Software Construction

[Class List](#) [Attendance](#)

CO226 - Database Systems

[Class List](#) [Attendance](#)

[Home](#) / [ClassList](#)

Class list of CO226 - Database Systems (2018)

Students not in the ClassList

Students in the ClassList

[Add to ClassList >](#)[< Remove from ClassList](#)

| <u>Select</u> | ENumber | Name | <u>Select</u> | ENumber | Name |
|--------------------------|----------|------------------------------|--------------------------|----------|-------------------------------|
| <input type="checkbox"/> | E/15/140 | Mr. A.J.N.M. Jaliyagoda | <input type="checkbox"/> | E/15/123 | Mr. Wishma Herath |
| <input type="checkbox"/> | E/15/138 | Mr. M.M.M. Irfan | <input type="checkbox"/> | E/15/173 | Miss S. D. D. D. Karunarathna |
| <input type="checkbox"/> | E/15/280 | Mr. M. P. U. Premathilaka | <input type="checkbox"/> | E/15/307 | Mr. L. Rishikeshan |
| <input type="checkbox"/> | E/15/316 | Mr. U. G. S. B. Samarasinghe | <input type="checkbox"/> | E/15/350 | Mr. T.M.P.B Tennakoon |
| <input type="checkbox"/> | E/15/092 | Mr. I.U. Ekanayake | | | |



CO226 - Database Systems

Lecturer In-charge: Dr. Mr. Manjula Sandirigama

Instructor In-charge: Miss Nimali Kularathne

| Type | Date and Time | Conducted by | |
|---------|-----------------------------------|-----------------------------|---------------------------------|
| Lab | 2019-01-10 08:00:00 (120 mins) | Miss Nimali Kularathne | Mark Attendance |
| Lecture | 2019-01-08 08:00:00 (90 mins) | Dr. Mr. Manjula Sandirigama | Mark Attendance |
| Lab | 2019-01-03 08:00:00 (120 mins) | Miss Nimali Kularathne | Mark Attendance |
| Lecture | 2019-01-01 20:00:00 (90 mins) | Dr. Mr. Manjula Sandirigama | Mark Attendance |



CO225 - Software Construction

Conducted by: Dr. Mr. Dhammadika Elkaduve | 2019-01-04 08:00:00

Started At : 08:00:00 | Duration : 60 mins

[Mark All Present](#)[Mark All Absent](#)

| User ID | User | Actions | | Current Attendance |
|----------|--|-------------------------|------------------------|--------------------|
| E/15/140 | Mr. A.J.N.M. Jaliyagoda (nuwanjaliyagoda@eng.pdn.ac.lk) | Present | Absent | 100 % |
| E/15/123 | Mr. Wishma Herath (wisheslakshan@gmail.com) | Present | Absent | 100 % |
| E/15/138 | Mr. M.M.M. Irfan (irfanmm96@gmail.com) | Present | Absent | 100 % |
| E/15/173 | Miss S. D. D. D. Karunarathna (dinelkadilshani95@gmail.com) | Present | Absent | 100 % |
| E/15/280 | Mr. M. P. U. Premathilaka (pubuduudara7@gmail.com) | Present | Absent | 100 % |
| E/15/307 | Mr. L. Rishikeshan (uni@ris.fi) | Present | Absent | 100 % |



Online Attendance Portal

Email

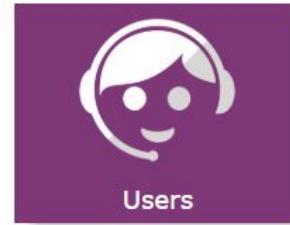
Enter your email here

Password

Enter your password here

Login

Online Attendance Portal - Faculty of Engineering, University of Peradeniya
Administrator's Perspective



Courses (Semester 4, Admin View)

CO224 - Computer Architecture

[Class List](#) [Attendance](#)

CO225 - Software Construction

[Class List](#) [Attendance](#)

CO226 - Database Systems

[Class List](#) [Attendance](#)

EE285 - Electronics I

[Class List](#) [Attendance](#)

EM314 - Numerical Methods

[Class List](#) [Attendance](#)

[Home](#) / [Users](#)

Portal Users

[Add New User](#)

| User ID | User | Role | Last Accessed Time | Actions |
|---------|---|---------|---------------------|---|
| 0 | Mr. Null User (noreply@co224.tk) | Admin | 2018-12-19 00:00:00 | Edit Delete |
| 100000 | Mr. A.J.N.M. Jaliyagoda (nuwanjaliyagoda@eng.pdn.ac.lk) | Admin | 2019-01-15 23:18:36 | Edit Delete |
| 100001 | Mr. Wishma Herath (wisheslakshan@gmail.com) | Admin | 2018-12-20 10:05:44 | Edit Delete |
| 100003 | Mr. M.M.M. Irfan (irfanmm96@gmail.com) | Admin | 2018-12-20 20:58:22 | Edit Delete |
| 100004 | Miss S. D. D. D. Karunaratna (dinelkadilshani95@gmail.com) | Student | 2019-01-07 00:32:25 | Edit Delete |
| 100005 | Mr. M. P. U. Premathilaka (pubuduudara7@gmail.com) | Student | 2018-12-20 06:12:00 | Edit Delete |
| 100006 | Mr. L. Rishikeshan (uni@ris.fi) | Admin | 2018-12-20 06:12:36 | Edit Delete |
| 100007 | Mr. U. G. S. B. Samarasinghe (imsuneth@gmail.com) | Student | 2018-12-20 06:12:02 | Edit Delete |
| 100011 | Mr. T.M.P.B.Tennakoon | Student | 2018-12-20 07:12:48 | Edit Delete |

[Home](#) / [Courses](#)[Courses](#)[Add New Course](#)

| Course ID | Title | L. In-charge | I. In-charge | Actions |
|-----------|---|---|---|---------|
| 10001 | CO224 - Computer Architecture | Dr. Mr. Roshan G. Ragel | Miss Thilini Dahanayaka | |
| 10002 | CO225 - Software Construction | Dr. Mr. Dhammadika Elkaduwe | Miss Nimali Kularathne | |
| 10003 | CO226 - Database Systems | Dr. Mr. Manjula Sandirigama | Miss Nimali Kularathne | |
| 10004 | EE285 - Electronics I | Dr. Mr. K.R.M.N. Rathnayaka | Miss Thilini Dahanayaka | |
| 10006 | EM314 - Numerical Methods | Mr. N.L. Jayatilake | Mr. Null User | |

[Home](#) / [Classes](#)[Classes](#)[Add New Class](#)

| Course | Type | Date and Time | Conduct by | | |
|---|---------|-----------------------------------|-----------------------------|-------------------------------------|--|
| CO224 - Computer Architecture | Lecture | 2019-01-11 08:55:00 (60 mins) | Dr. Mr. Isuru Nawinne | <input checked="" type="checkbox"/> | |
| CO224 - Computer Architecture | Lab | 2019-01-07 15:10:00 (120 mins) | Dr. Mr. Isuru Nawinne | <input checked="" type="checkbox"/> | |
| CO224 - Computer Architecture | Lecture | 2019-01-07 08:55:00 (120 mins) | Dr. Mr. Isuru Nawinne | <input checked="" type="checkbox"/> | |
| EE285 - Electronics I | Lecture | 2019-01-04 10:20:00 (120 mins) | Miss W. L. Abeygunasekara | <input checked="" type="checkbox"/> | |
| CO224 - Computer Architecture | Lecture | 2019-01-04 08:55:00 (60 mins) | Dr. Mr. Isuru Nawinne | <input checked="" type="checkbox"/> | |
| CO225 - Software Construction | Lecture | 2019-01-04 08:00:00 (60 mins) | Dr. Mr. Dhammadika Elkaduve | <input checked="" type="checkbox"/> | |
| EM314 - Numerical Methods | Lecture | 2019-01-03 10:30:00 (90 mins) | Mr. N.L. Jayatilake | <input checked="" type="checkbox"/> | |
| CO226 - Database Systems | Lab | 2019-01-03 08:00:00 (120 mins) | Miss Nimali Kularathne | <input checked="" type="checkbox"/> | |
| EM314 - Numerical Methods | Lab | 2019-01-01 13:00:00 | Mr. N.L. Jayatilake | <input checked="" type="checkbox"/> | |

Technologies we used ...

MySQL™



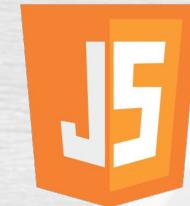
HTML



CSS

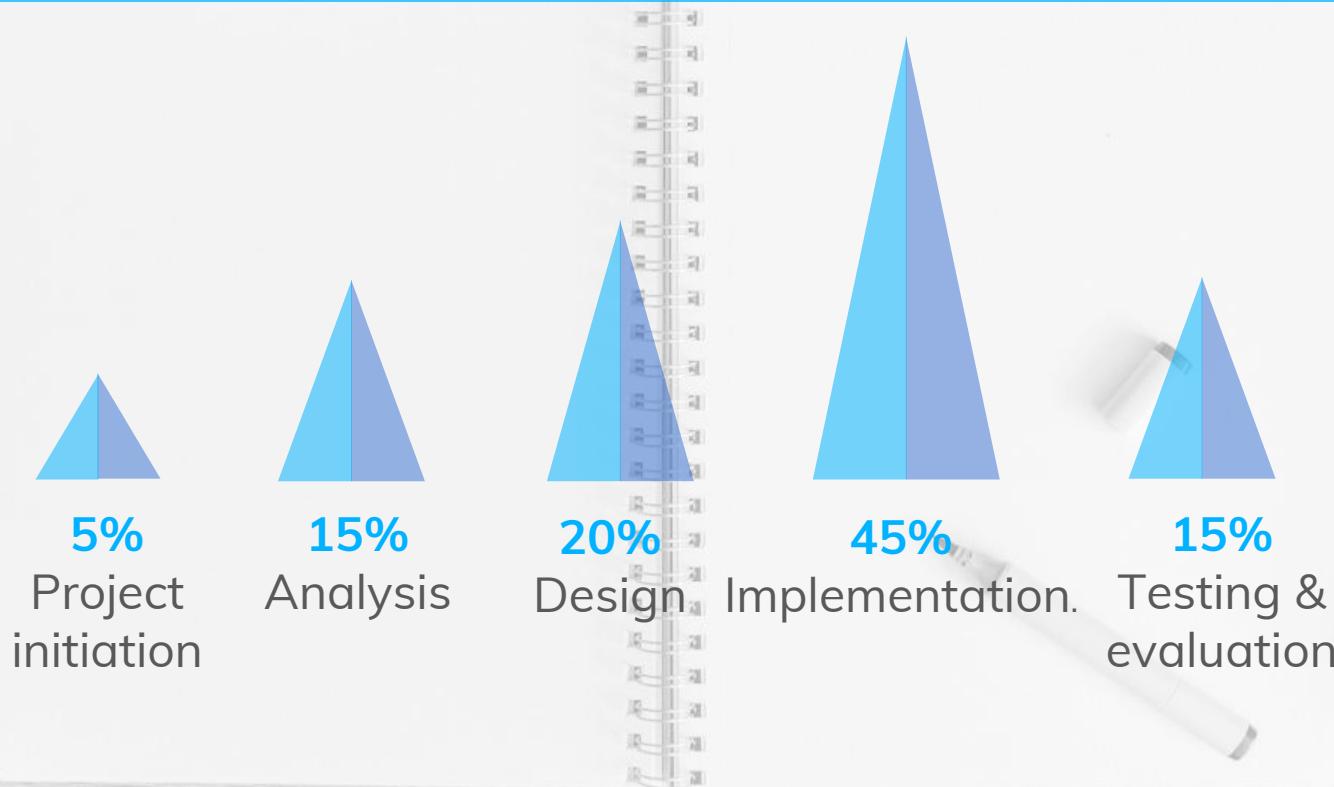


JS



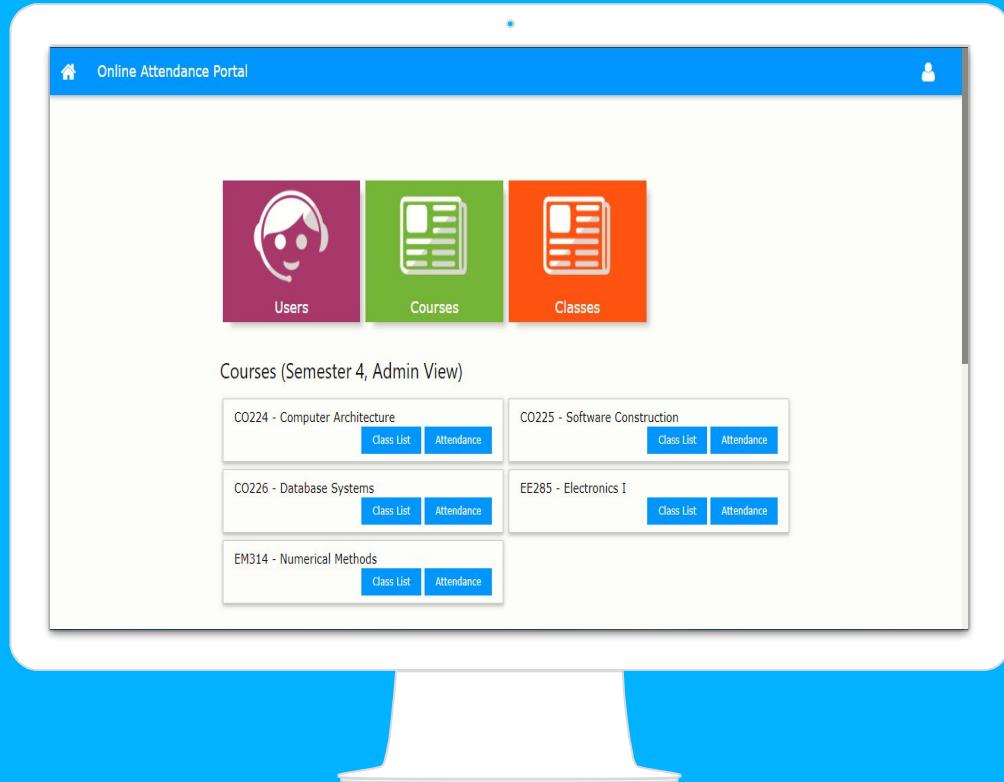
jQuery

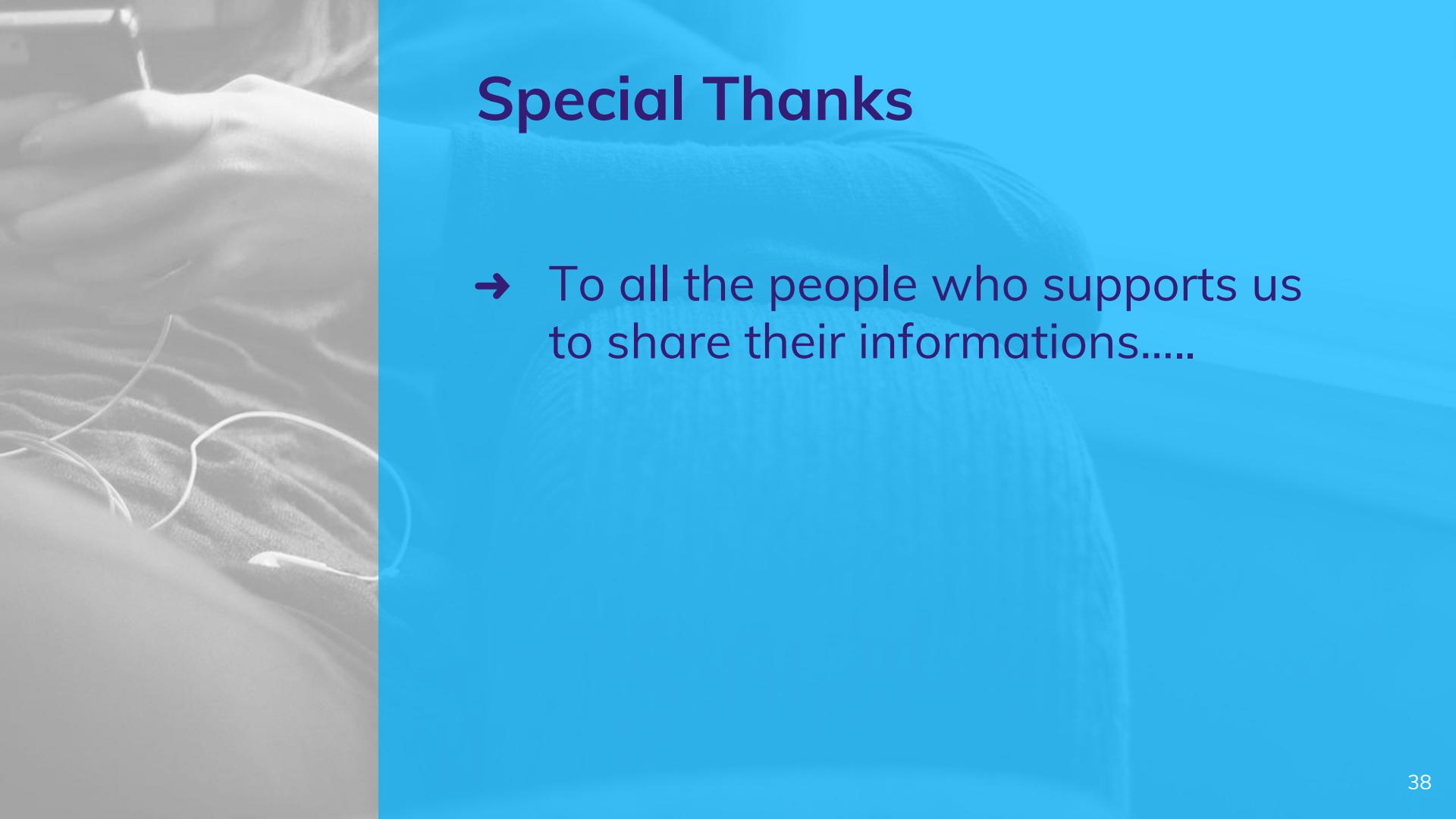
Graphical representation of Time management



Future Improvements

- Improve the security of the database.
- Populate the database for all the departments of the faculty.
- RFID device to mark attendance





Special Thanks

- To all the people who supports us to share their informations.....

Thanks!

Any questions?



