

CAPSTONE PROJECT PRESENTATION

ON

iN-CAMPUS ANDROID APPLICATION

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MOTIVATION AND PROBLEM STATEMENT

Problem:

- Current process of marking exit/entry while going out from/Coming to the campus is very inefficient
 - Time.
 - Data storing/tracking.
 - Security issues.

Motivation:

“Providing solution to this problem can help us to manage and get this data(exit entry logs) which further can be used in other useful applications.”

INPUTS/OUTPUTS

Inputs

- Effort of the security team of the campus.

Outputs

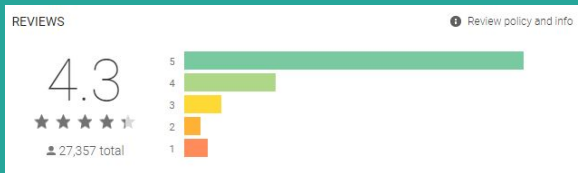
- Campus Security.
- A useful data which can be utilized.
- Time saving.
- Smoothing function of the college.
- Connecting people more extensively.

PRIOR WORKS

This project idea is not an completely new as its main features derives from an already existing application



“MyGate, the leading apartment management software, assures the security and convenience of gated communities. Through its Security, Community, and Accounting Management modules, the gated community software provides various new features to assist ease everyday tasks and enhance security standards surrounding gated communities.”



EFFORTS

- 1) No prior experience in android development => need to spend some extra time to go through online videos, tutorials.
- 2) Working alone => Increased workload, no work division flexibility, need to work daily.

RESULT AND OBSERVATION

- ★ There is a flaw in our current security system which needs to be rectified.
- ★ The entry/exit logs data of people living in the campus is very important and can be used in some other applications to make our life easier and comfortable.

PLAN FOR FUTURE WORK

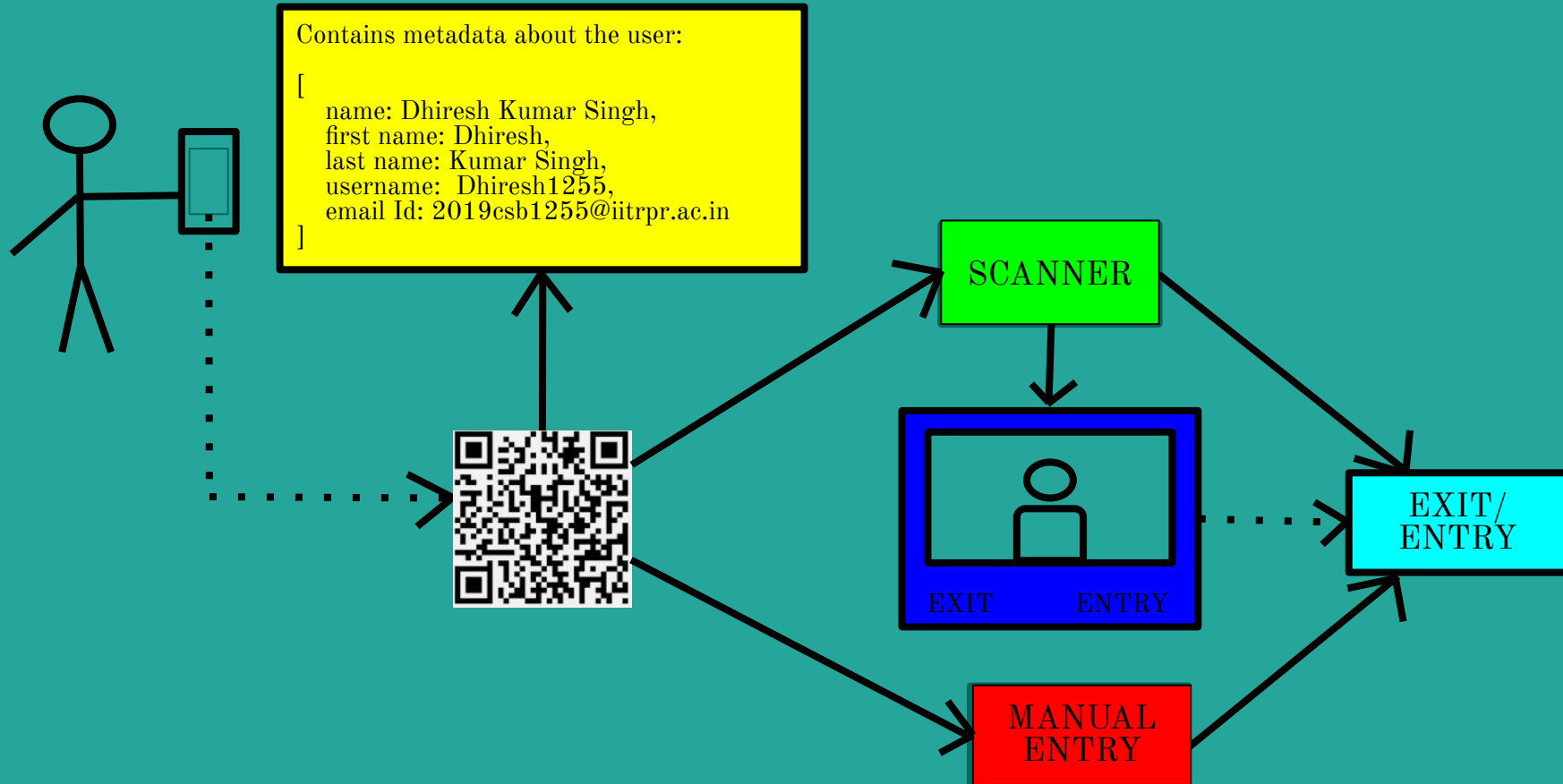
Current work progress

- ❑ Firebase Authentication of the users
 - ❑ SignUp
 - ❑ Login
 - ❑ Logout

Future work

- ❑ Entry while leaving/coming to campus.(**module 1**)
- ❑ All complaints with progress tracking.(**module 2**)
- ❑ Important news/ updates/institute calendar.(**module 3**)
- ❑ Amenity booking.(**module 4**)
- ❑ Fixing appointments with profs/visitors.(**module 5**)
- ❑ Connects people within the campus through this app(self-publishing feature).(b**module 6**)
- ❑ Lost found.(**module 7**)
- ❑ Share what's in your mind through the confession page.(**module 8**)
- ❑ campus contacts.(**module 9**)

HOW MODULE-1 WORKS



MODULE-1

“Creating and inserting exit/entry logs while user leaves/come to the campus”

For users

- ❖ Forgot password

For Students

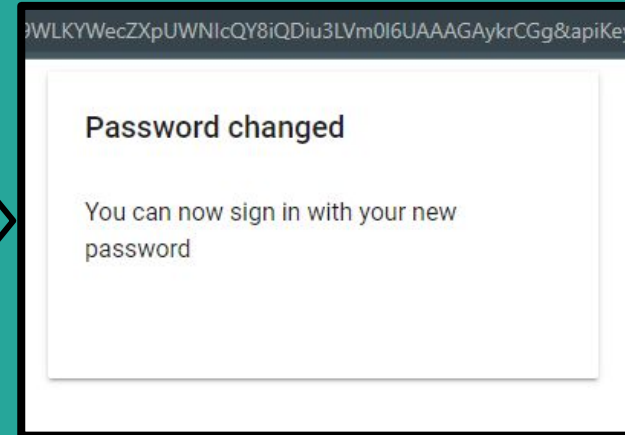
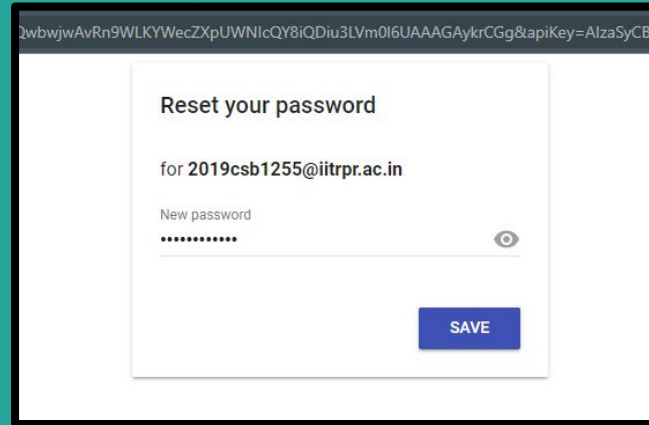
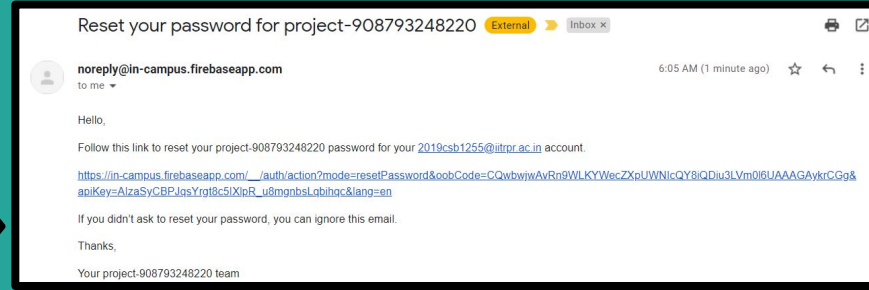
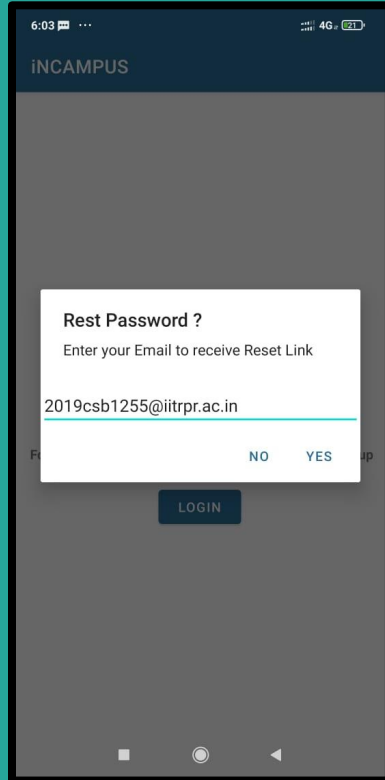
- ❖ Mark Exit/Entry activity
- ❖ Logs activity
- ❖ Profile activity

For Security

- ❖ Mark Exit/Entry through scanner
- ❖ Mark Exit/Entry activity through Manual entry
- ❖ All user logs

FOR USERS

❖ FORGOT PASSWORD(1.1)

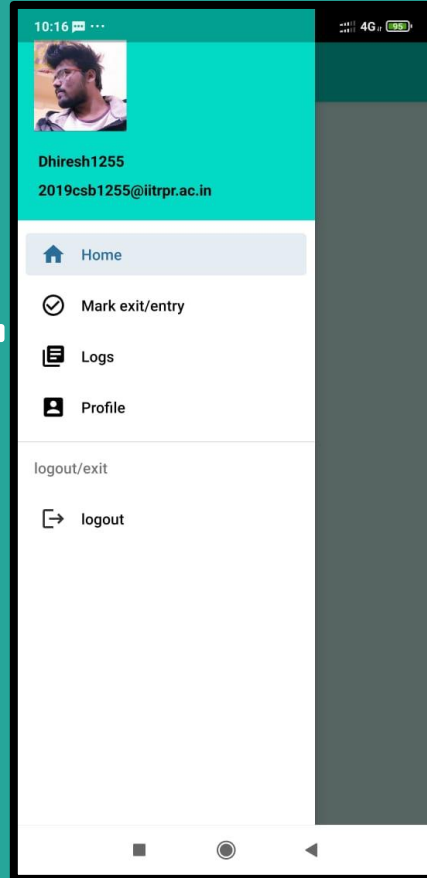


FOR STUDENTS

❖ Layout of student activity

The main layout of the student activity contains 4 activity

- ★ Home
- ★ Mark exit/entry
- ★ Logs
- ★ Profile



FOR STUDENTS

❖ Mark Exit/Entry activity(2.1)

This QR code will contain metadata of the user.
For example:

```
[  
  name: Dhiresh Kumar Singh,  
  first name: Dhiresh,  
  last name: Kumar Singh,  
  username: Dhiresh1255,  
  email Id: 2019csb1255@iitrpr.ac.in  
]
```



Security guard will just scan this QR code and extract the username from the content of it , and generate/ insert the exit/entry log for the current user

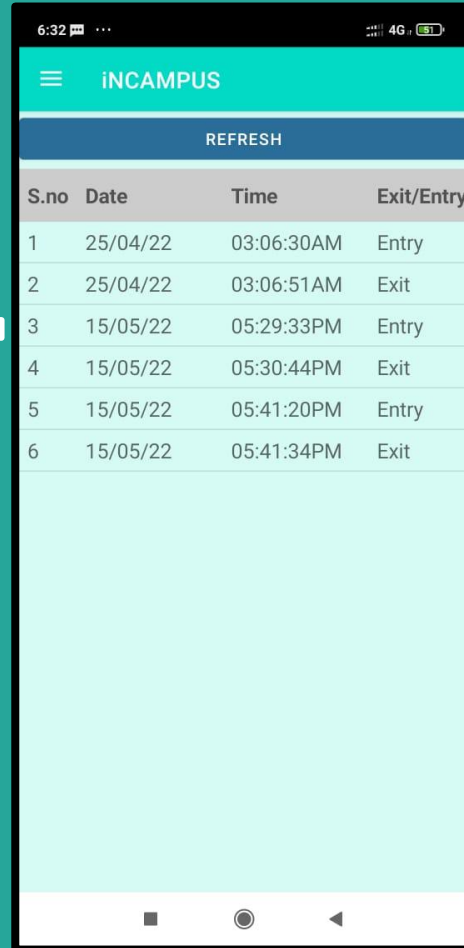
FOR STUDENTS

❖ Logs activity(2.2)

Users can view all of their logs,

Which shows

- Date
- Time
- Exit/Entry



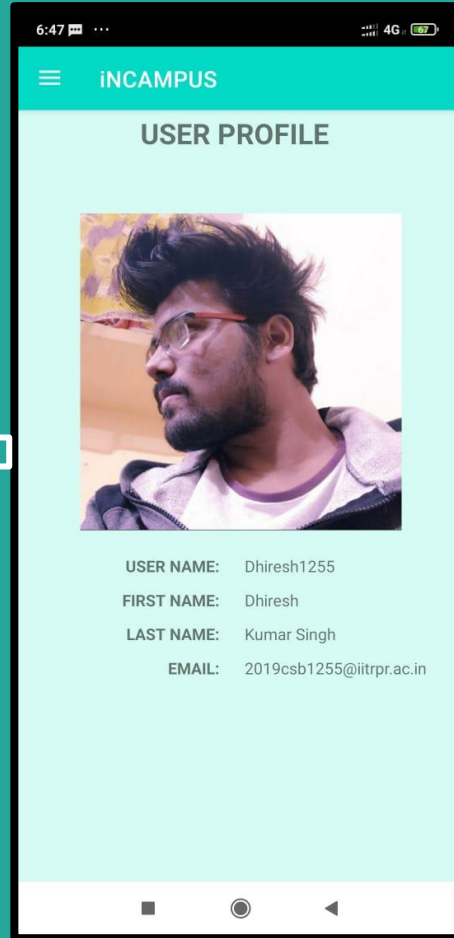
iNCAMPUS			
REFRESH			
S.no	Date	Time	Exit/Entry
1	25/04/22	03:06:30AM	Entry
2	25/04/22	03:06:51AM	Exit
3	15/05/22	05:29:33PM	Entry
4	15/05/22	05:30:44PM	Exit
5	15/05/22	05:41:20PM	Entry
6	15/05/22	05:41:34PM	Exit

Users have to press this refresh button, to get the latest data of their logs from backend API

FOR STUDENTS

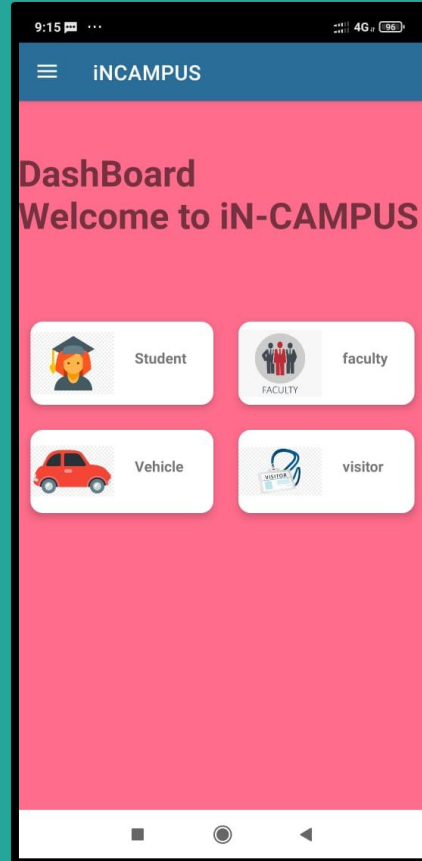
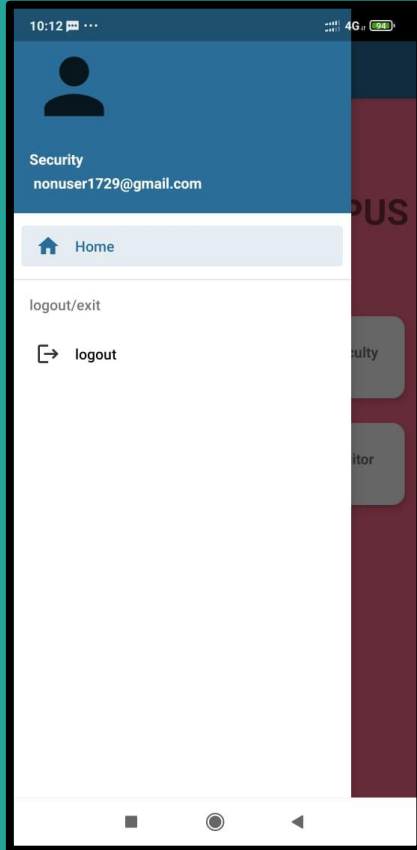
❖ Profile activity(2.3)

This activity will contain basic, important information about the user



FOR SECURITY

❖ Layout of security activity



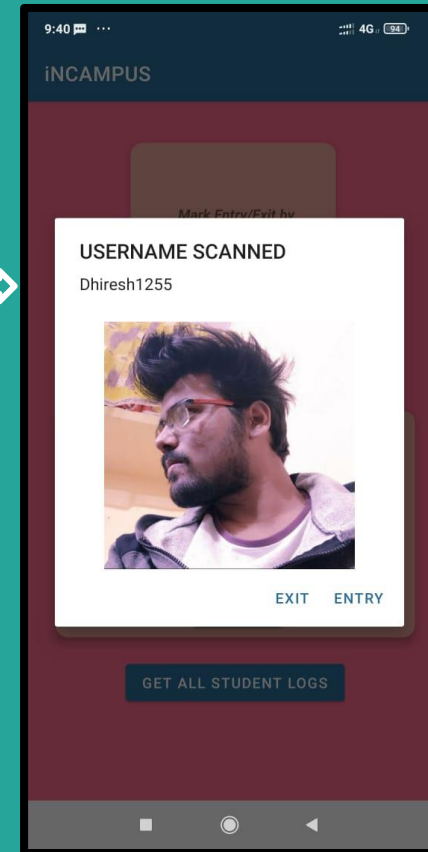
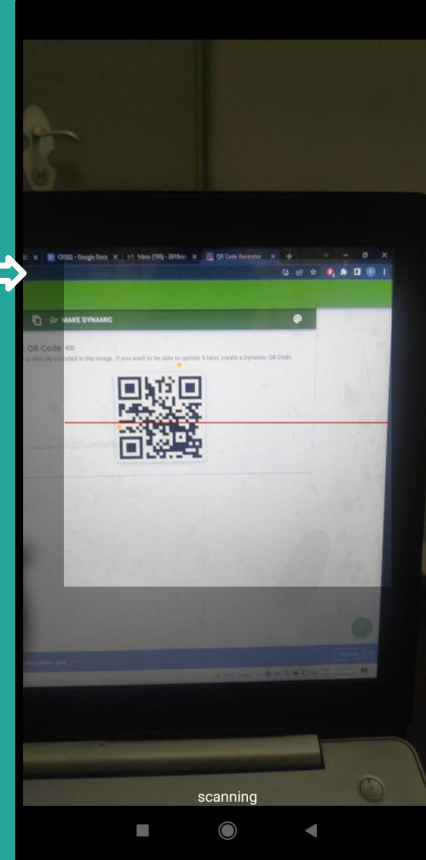
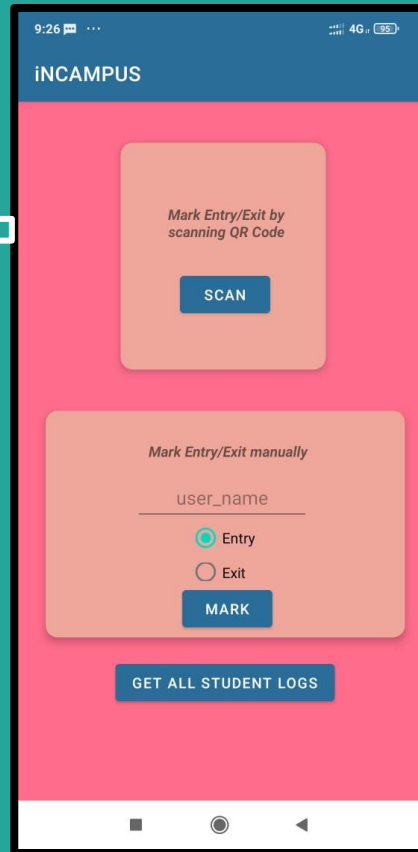
The dashboard of security side contains 4 icons, which ensures marking exit/entry for each type of user.

- ★ Student (✓ completed this semester)
- ★ Faculty (to be done)
- ★ Viechiel (to be done)
- ★ Visitors (to be done)

FOR SECURITY

❖ Marking exit/entry through scanner (3.1)

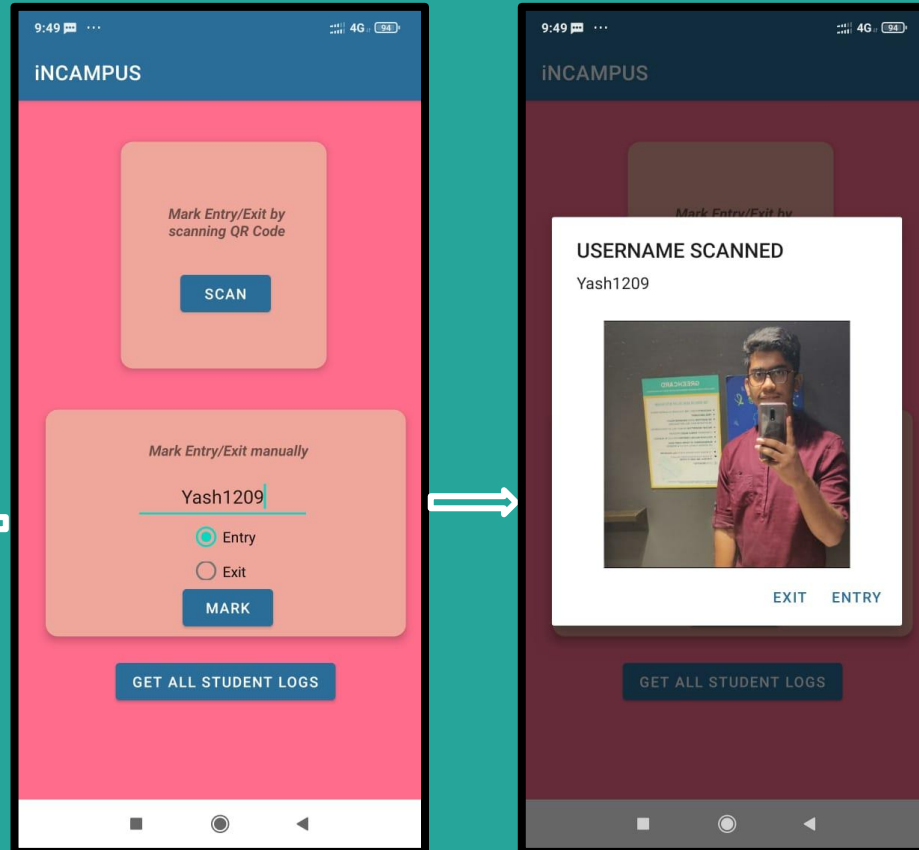
Security guard can scan the QR code of the student using the app, Which will fetch the user details, and makes an entry/ exit for the user whose details are fetched



FOR SECURITY

❖ Marking exit/entry through manual entry (3.2)

In case user is not having his phone with him, he can just tell his username to the guard and guard will then perform a manual entry for the user writing his name and choosing whether to enter or exit



FOR SECURITY

❖ All user Logs(3.3)

Security guard can view all user logs

INCAMPUS

Mark Entry/Exit by scanning QR Code

SCAN

Mark Entry/Exit manually

user_name

☒ Entry

☐ Exit

MARK

GET ALL STUDENT LOGS

INCAMPUS

REFRESH

Userna...	Date	Time	Exit/Entry
Dhires1...	25/04/22	02:59:55...	Entry
Dhires1...	25/04/22	03:05:57...	Exit
Gourav1...	25/04/22	03:06:30...	Entry
Gourav1...	25/04/22	03:06:51...	Exit
Yash1209	25/04/22	03:07:11...	Entry
Yash1209	25/04/22	03:07:27...	Exit
Aman12...	25/04/22	02:34:29...	Entry
Dhires1...	15/05/22	04:20:46...	Entry
Dhires1...	15/05/22	04:21:12...	Exit
Yash1209	15/05/22	05:27:11...	Entry
Yash1209	15/05/22	05:27:28...	Exit
Gourav1...	15/05/22	05:29:33...	Entry
Gourav1...	15/05/22	05:30:44...	Exit
Gourav1...	15/05/22	05:41:20...	Entry
Gourav1...	15/05/22	05:41:34...	Exit
Yash1209	15/05/22	05:41:53...	Entry

DATABASE/ TABLES

The screenshot shows the phpMyAdmin interface. On the left sidebar, the 'incampus' database is selected, and the 'all_user_logs' table is highlighted. The main area displays the table structure and data. The table has columns: s.no, user_name, time, and exit_entry. The data shows 22 rows of user logs.

s.no	user_name	time	exit_entry
1	Dhires1255	2022-04-25 02:59:55	Entry
2	Dhires1255	2022-04-25 03:05:57	Exit
3	Gourav1257	2022-04-25 03:06:30	Entry
4	Gourav1257	2022-04-25 03:06:51	Exit
5	Yash1209	2022-04-25 03:07:11	Entry
6	Yash1209	2022-04-25 03:07:27	Exit
7	Aman1236	2022-04-25 14:34:29	Entry
8	Dhires1255	2022-05-15 16:20:46	Entry
9	Dhires1255	2022-05-15 16:21:12	Exit
10	Yash1209	2022-05-15 17:27:11	Entry
11	Yash1209	2022-05-15 17:27:28	Exit
12	Gourav1257	2022-05-15 17:29:33	Entry
13	Gourav1257	2022-05-15 17:30:44	Exit
14	Gourav1257	2022-05-15 17:41:20	Entry
15	Gourav1257	2022-05-15 17:41:34	Exit
16	Yash1209	2022-05-15 17:41:53	Entry
17	Yash1209	2022-05-15 17:42:14	Exit
18	Dhires1255	2022-05-15 18:35:10	Entry
19	Dhires1255	2022-05-15 18:35:24	Exit
20	Yash1209	2022-05-15 18:35:48	Entry
21	Yash1209	2022-05-15 18:36:04	Exit
22	Aman1236	2022-05-16 09:59:18	Entry

Currently the database **incampus** contains only one table (**all_user_logs**) that stores the entry/exit logs of all the students who use the application

APIs

API1: getAllUserLogs

This api will fetch the logs of all students from all_user_logs table

```
getAllUserLogs.php X
v1 > getAllUserLogs.php
1  <?php
2
3  require_once '../includes/DbOperations.php';
4  $response = array();
5
6  if($_SERVER['REQUEST_METHOD'] == 'POST'){
7      $db = new DbOperations();
8      $result = $db->getAllUserLogs();
9
10     $res = [];
11     while($row = mysqli_fetch_array($result, MYSQLI_NUM)){
12         array_push($res, $row[0]." ".$row[1]." ".$row[2]);
13     }
14
15     $response["error"] = false;
16     $response["logs"] = $res;
17
18 }
19
20
21 echo json_encode($response);
```

API2: getUserLog

This api will fetch the logs of a user with a particular username, from the all_user_logs table

```
getUserLog.php X
v1 > getUserLog.php
1  <?php
2
3  require_once '../includes/DbOperations.php';
4  $response = array();
5
6  if($_SERVER['REQUEST_METHOD'] == 'POST'){
7      if(isset($_POST['user_name'])){
8          $db = new DbOperations();
9          $result = $db->getUserLogs($_POST['user_name']);
10
11          $res = [];
12          while($row = mysqli_fetch_array($result, MYSQLI_NUM)){
13              array_push($res, $row[0]." ".$row[1]);
14          }
15
16          $response["error"] = false;
17          $response["logs"] = $res;
18
19      }else{
20          $response["error"] = true;
21          $response["message"] = "Required fileds are missing";
22      }
23
24 }
25 echo json_encode($response);
```

API3: insertLog

This api will insert the log for a student/user for every exit/entry which is registered by this app

```
v1 > insertLog.php
1  <?php
2
3  require_once '../includes/DbOperations.php';
4  $response = array();
5  if($_SERVER['REQUEST_METHOD'] == 'POST'){
6
7      if(
8          isset($_POST['username']) and
9          isset($_POST['time']) and
10         isset($_POST['exit_entry'])
11     ){
12
13         $db = new DbOperations();
14         if($db->insert_log(
15             $_POST['username'],
16             $_POST['time'],
17             $_POST['exit_entry']
18         )){
19             $response['error'] = false;
20             $response['message'] = "Log inserted successfully";
21         }else{
22             $response['error'] = true;
23             $response['message'] = "Some error occured please try again";
24         }
25     }else{
26
27         $response['error'] = true;
28         $response['message'] = "Requird fields are missing";
29     }
30 }
31
32 }else{
33
34     $response['error'] = true;
35     $response['message'] = "Invalid Request";
36 }
37
38 }
39
40 echo json_encode($response);
```

FUTURE PLANS

- From here onwards, Aditya patel (2019CSB1065) will be taking the lead of the project.

LINK TO THE REPOSITORY

[INCAMPUS-github-repository-link](#)

THANK YOU

