

Final Presentation

UMKC

Smart Attend





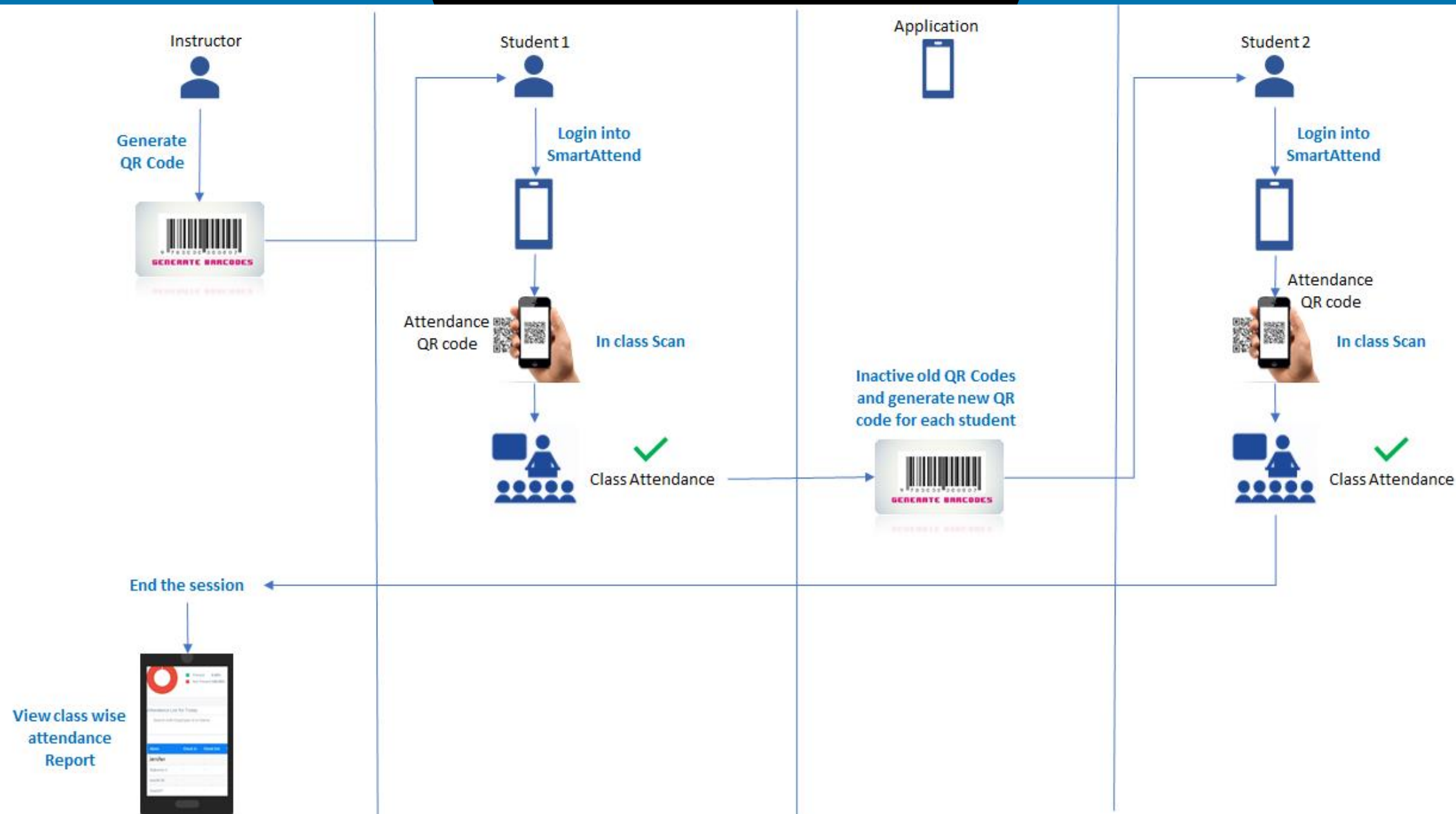
Motivation:

By observing some of the concerns faced by instructors in every class to track the attendance we were motivated to provide a solution to eradicate the issue.

Objective:

To bring ease in tracking the attendance for instructors.

Block Diagram



Implementation Environment



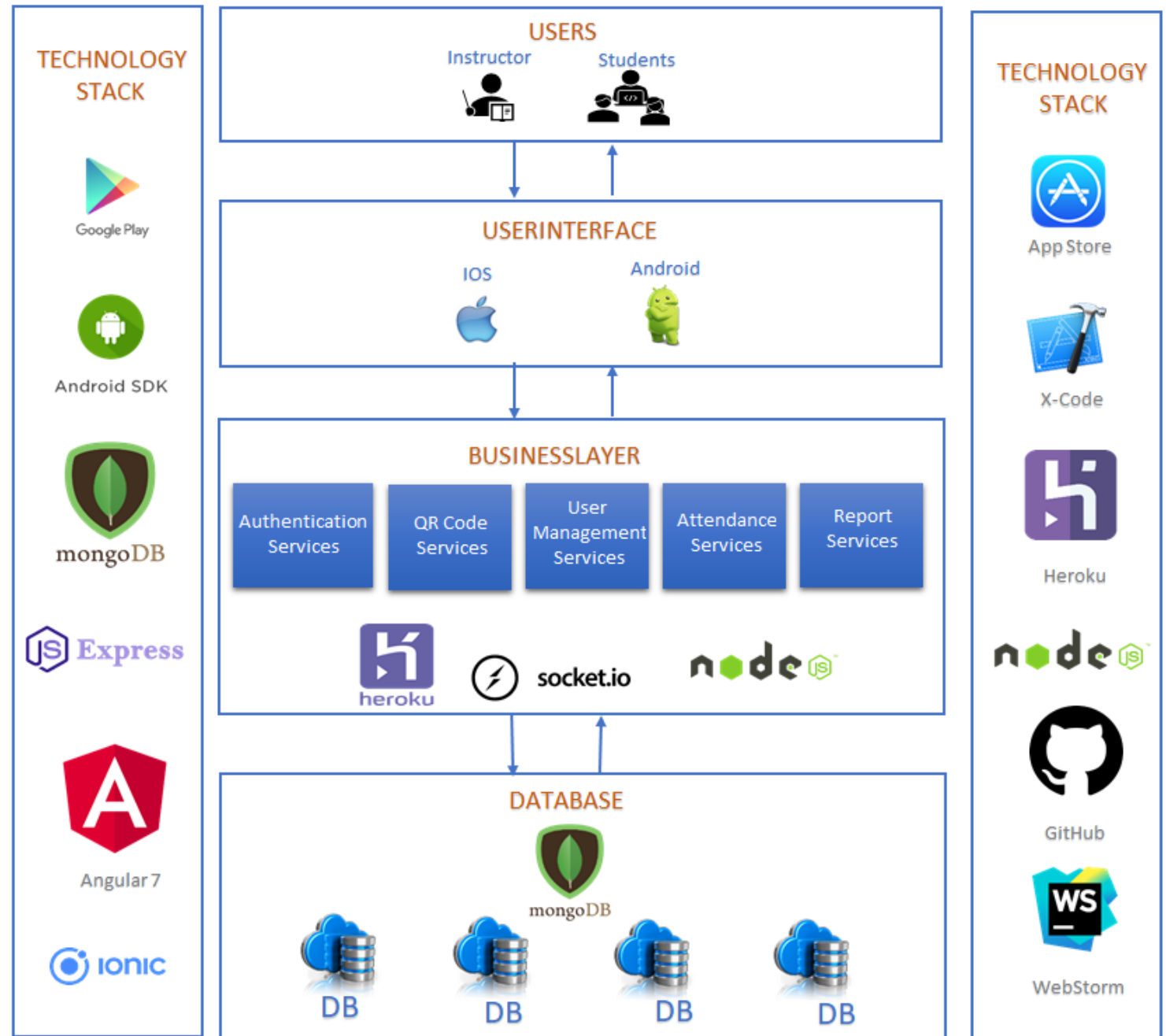
1. MongoDB
2. Angular 7
3. Express.js
4. Node.js
5. Ionic 4
6. Android SDK
7. X-Code
8. Heroku



Android SDK



System Architecture





pavankotas / SmartAttend

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Wiki

Insights

No description, website, or topics provided.

18 commits

1 branch

0 releases

2 contributors

Branch: master

New pull request

Create new file

Upload files

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pavankotas Add files via upload

Latest commit b40cf31 21 hours ago

QR-Code-generator	Updates with local integrations	a month ago
backend	Smart Attend Ios Updates	5 days ago
e2e	Bar code ionic application implemented	a month ago
resources	Bar code ionic application implemented	a month ago
src	Implemented Loading as a services and used in the Login , Student sca...	5 days ago
.gitignore	Bar code ionic application implemented	a month ago
Procfile	Initial Deployment	10 days ago
README.md	Initial commit	a month ago
SmartAttend_Feedback_Report.docx	Add files via upload	13 days ago

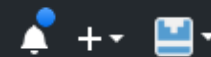
<https://github.com/pavankotas/SmartAttend>



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🔒 pavankotas / SmartAttendBackend ≡ Private

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Z ZenHub

📁 Projects 0

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No description, website, or topics provided.

📦 7 commits

🌿 1 branch

🏷 0 releases

🚀 2 environments

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DharaniMuli Detailed Report module implemnetd

Latest commit 508a5e1 5 days ago



.idea

report url updated

8 days ago



db

make it better

9 days ago



models

make it better

9 days ago



node_modules

make it better

9 days ago



routes

Detailed Report module implemnetd

5 days ago



.gitattributes

Initial commit

10 days ago



.gitignore

workspace ignored

8 days ago



Procfile

make it better

9 days ago

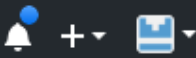
<https://github.com/pavankotas/SmartAttendBackend>



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[SmartAttend_ReleaseNote](#)

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<https://github.com/pavankotas/SmartAttend/wiki>

Feedback

Edit

New Page

DharaniMuli edited this page 21 hours ago · 13 revisions

Feedback received on April 2nd

1. What if user have no phone to scan
 2. Security challenges as we are getting user mobile config file.
 3. **Question:** Why can't Student come with QR code and instructor can scan students QR code.
Answer: It not user friendly, as instructor will get interrupted each time when student comes into class as students can also come later the class start. Moreover, if many instructors are using our application all the instructor should have their own device to scan so it not cost-effective solution.
 4. We are generating new unique QR code for each scan so that Student cannot generate QR code any other means and scan the attendance from any location.
- **Question:** Do Instructor always need to generate QR code manually for each student. **Answer:** No, Instructor has to generate QR code only once the starting of class later our system will

▼ Pages 3


[Feedback](#)

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Feedback received on Canvas

1. **Question:** Are you also taking measures like the time limit for the activations of barcode?
example - the bar code being active only for the particular class so that late attendance for the class can be avoided. **Answer:** Thank you Samhitha for your feedback .We haven't planned for late attendance But definitely it's a good feature to incorporate we will plan this in future once we are done with the initial version.
2. **Question:** let's assume that the last student in the class scanned the barcode, after that a new barcode will be generated and he sends that barcode to his friend who is absent since the second student is not in the class and he has access to the barcode. How are you going to handle that in your app? **Answer:** Thats a deep observation. Yes, we have listed the scenario of last student sending the barcode to his friend. To be frank we don't have exact solution to the problem. However, the solution that we thought of was to send the location from the student device and match it with professor device distance. But, on the otherside no one would like to be tracked.
3. **Question:** *Stats that to be provided for Instructor:*
 1. providing number of students attended the class. (which was already mentioned in the PPT)
 2. providing each student's percentage of attendance in sorted order for particular course. *Stats for the student:*
 3. providing the percentage of attendance for each course.
 4. Average late arrival time for the class. **Answer:** Yeah, we will add the internal architecture of the system in a detailed way in the presentation. The statistics part that you are talking about, we will definitely consider that. We have them in bucket list too. Good suggestions though.

Future consideration:

1. Securable application.
2. User should request instructor to add attendance if they user is unable to take the attendance.
Ex: if student don't have phone.
3. Build Statistics
4. Late Attendance tracker
5. Course wise attendance.
6. Enhancements in Reports
7. Make Robust

A hand is shown pointing upwards towards the word 'FEEDBACK'. The word is displayed in large, bold, blue capital letters on a yellow rectangular background. The background of the entire image is a blurred bokeh of blue and yellow lights.

FEEDBACK

pavankotas / SmartAttend

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SmartAttend_ReleaseNote

DharaniMuli edited this page 23 hours ago · 5 revisions

Edit New Page

ReleaseV1.0 - on 04-23-2019

Implemented features:

For Instructor:

1. Login
2. Generate QR code
3. Attendance Report

For Students:

1. Login
2. Take attendance

Pages 3

Find a Page...

Feedback

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https://github.com/pavankotas/SmartAttend/wiki/SmartAttend_ReleaseNote

1. Login
2. Generate QR code
3. Attendance Report

For Students:

1. Login
2. Take attendance

ReleaseV1.1 - on 04-30-2019

For Instructor:

1. Detailed Dashboard
2. Student wise report

For Students:

1. Attendance Report

Others:

1. Implemented loading functionality.
2. Place the app in play store

[SmartAttend_ReleaseNote](#)[+ Add a custom sidebar](#)**Clone this wiki locally**<https://github.com/pavankot>

https://github.com/pavankotas/SmartAttend/wiki/SmartAttend_ReleaseNote

Features yet to implement:

For Instructor:

1. Detailed Dashboard-Enhancements
2. Student wise report-Enhancements
3. Instructor profile
4. Upload student rosters

For Students:

1. Enhanced Attendance Report
2. Student Profile

Others

1. Place the app in apple store
2. User should request instructor to add attendance if they user is unable to take the attendance.
Ex: if student don't have phone
3. Late Attendance tracker
4. Securable application.
5. Course wise attendance.
6. Build Statistics
7. Make Robust

https://github.com/pavankotas/SmartAttend/wiki/SmartAttend_ReleaseNote

PRODUCT JOURNEY

Smart Attend

March 1st2019 - May 1st 2019

March 5th,2019

Start

1

INCREMENT-1

1. Research
2. System Architecture Design
3. Follow up meet with Choi ma'am

2

INCREMENT-2

1. Implemented 6 features
2. Follow up meet with Choi ma'am

MILESTONE 1

Version-1.0 Release
April 23rd,2019

V1.0

1. Bug Fixes
2. Enhancements (from feedback)
3. Implemented 3 features
4. Follow up mails with Choi ma'am

1. Bug Fixes
2. Enhancements (from feedback)
3. Implemented 2 features
4. Follow up meet with Choi ma'am

INCREMENT-4

4

3

INCREMENT-3

V1.1

MILESTONE 2

Version-1.1 Release
April 30th,2019

5

INCREMENT-5

X

X

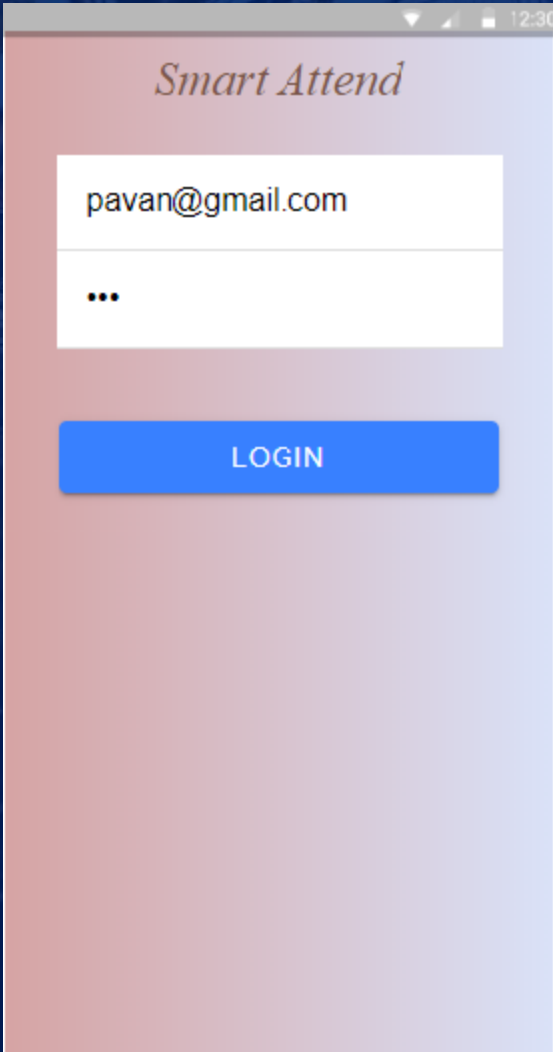
XX

MORE MILESTONES

Journey Continues.....

Smart Attend V1.0

Professor Login



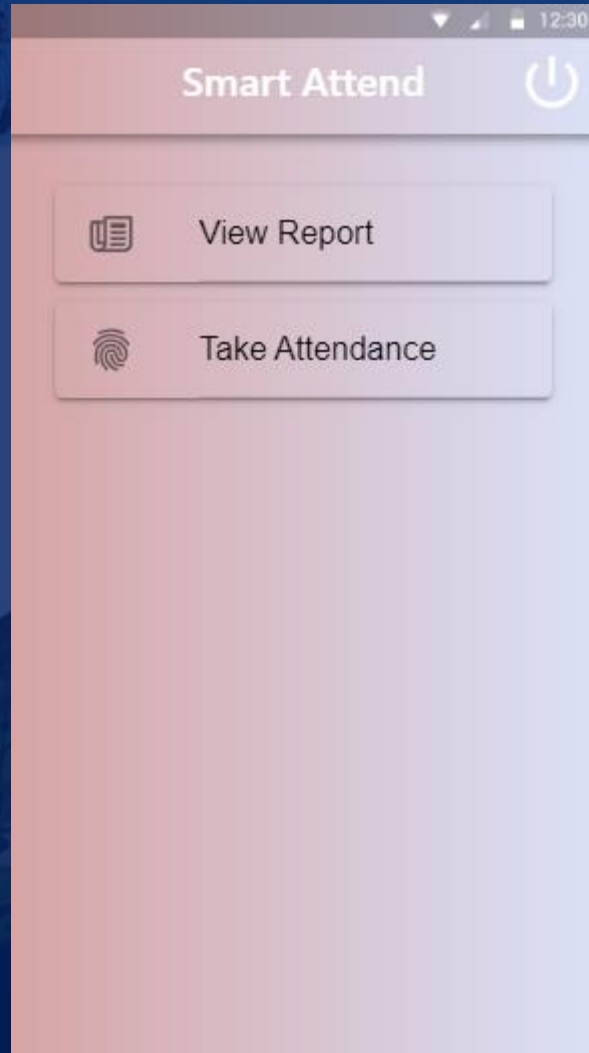
Smart Attend

pavan@gmail.com

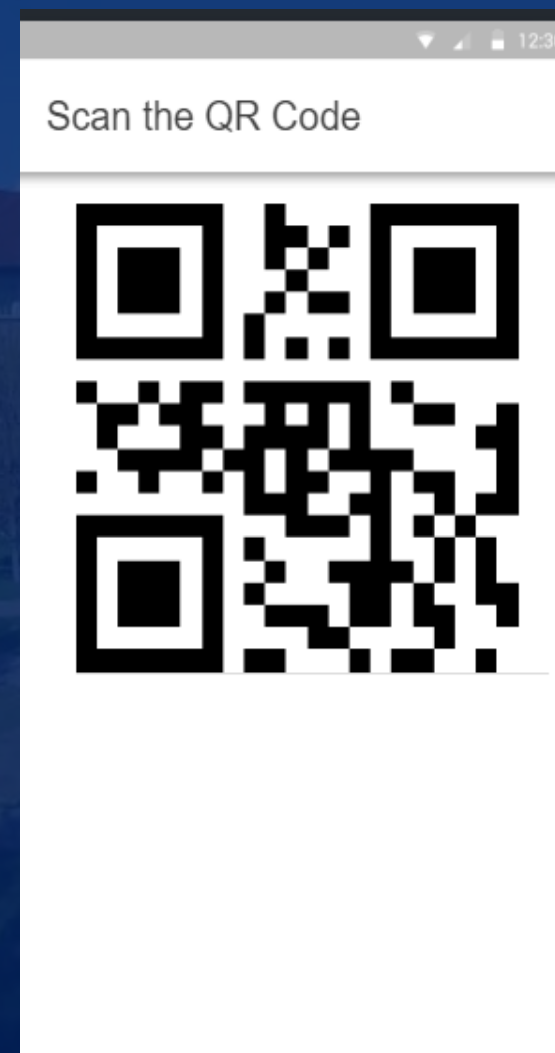
...

LOGIN

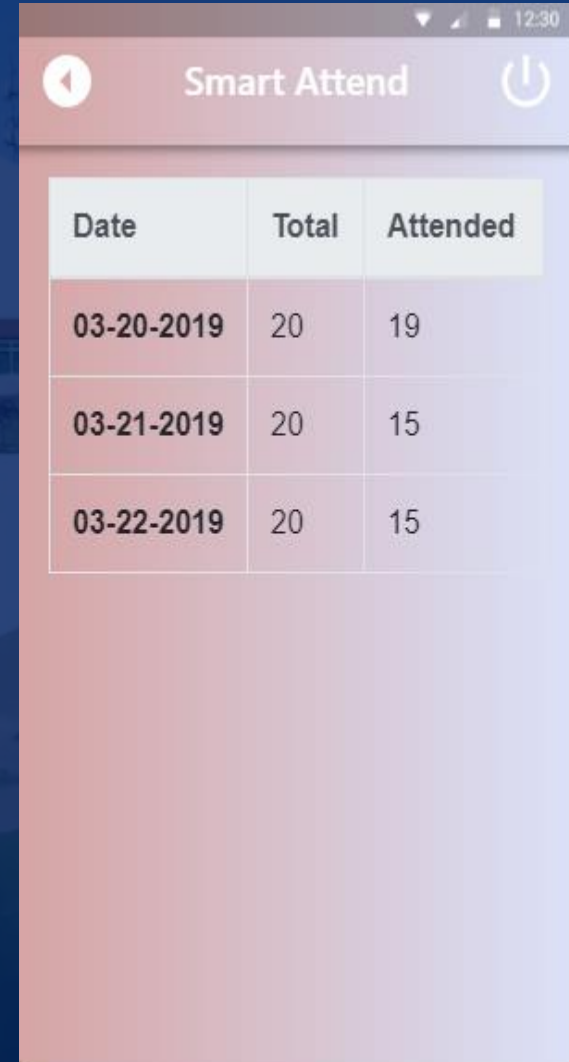
Home Page



Take Attendance



View Report

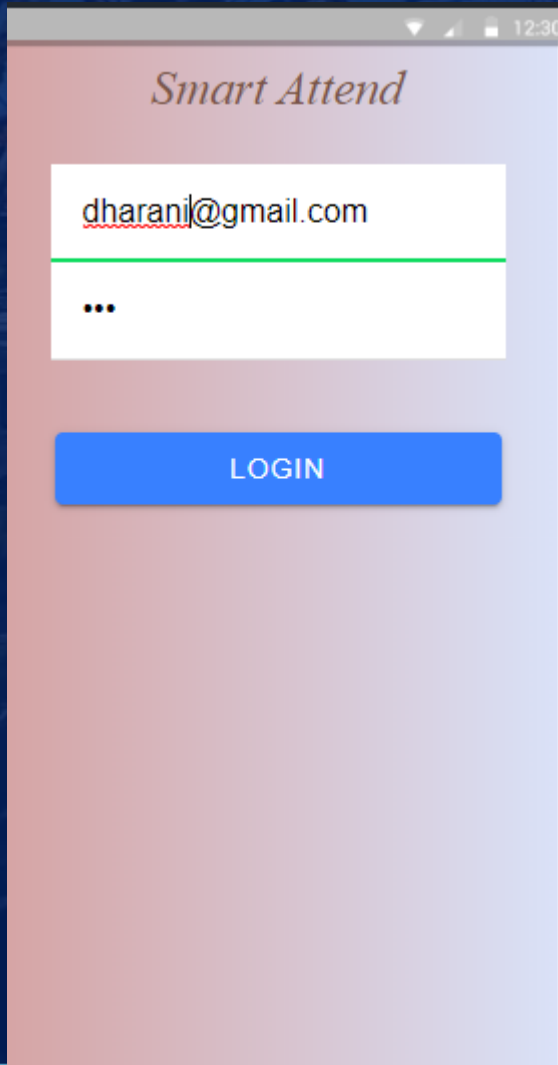


Smart Attend

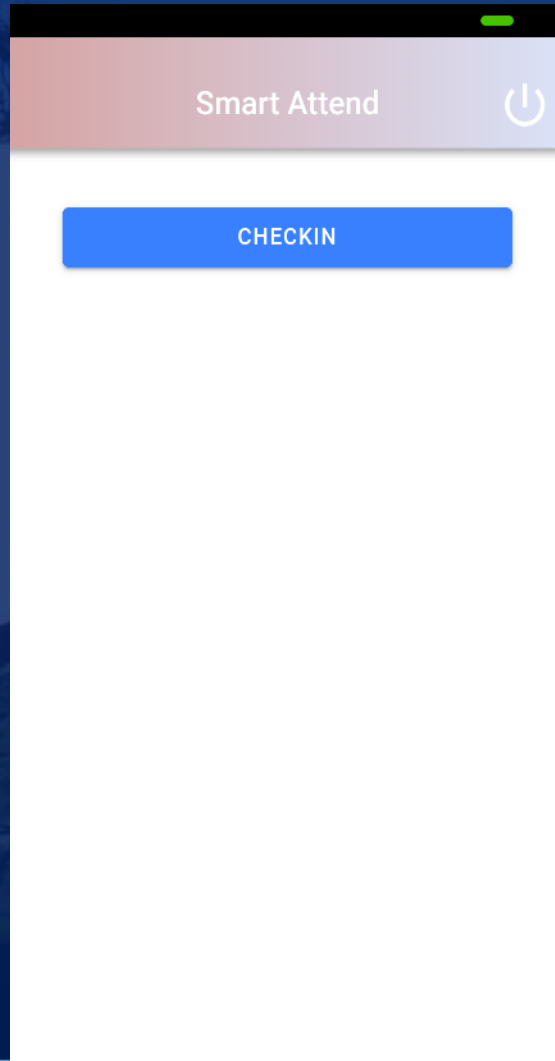
Date	Total	Attended
03-20-2019	20	19
03-21-2019	20	15
03-22-2019	20	15

Smart Attend V1.0

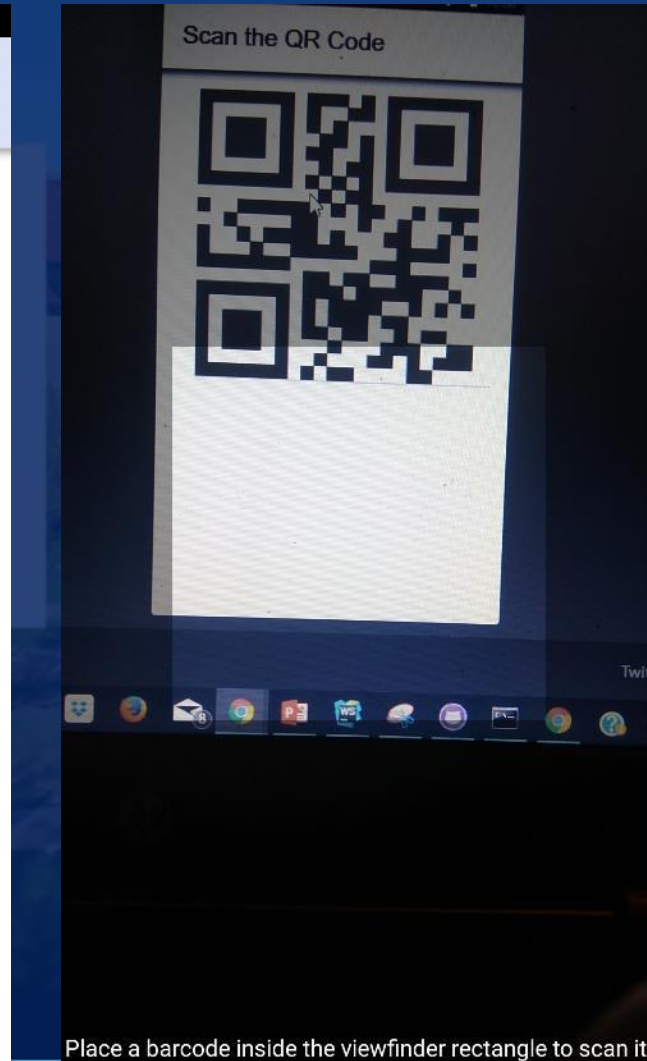
Student Login



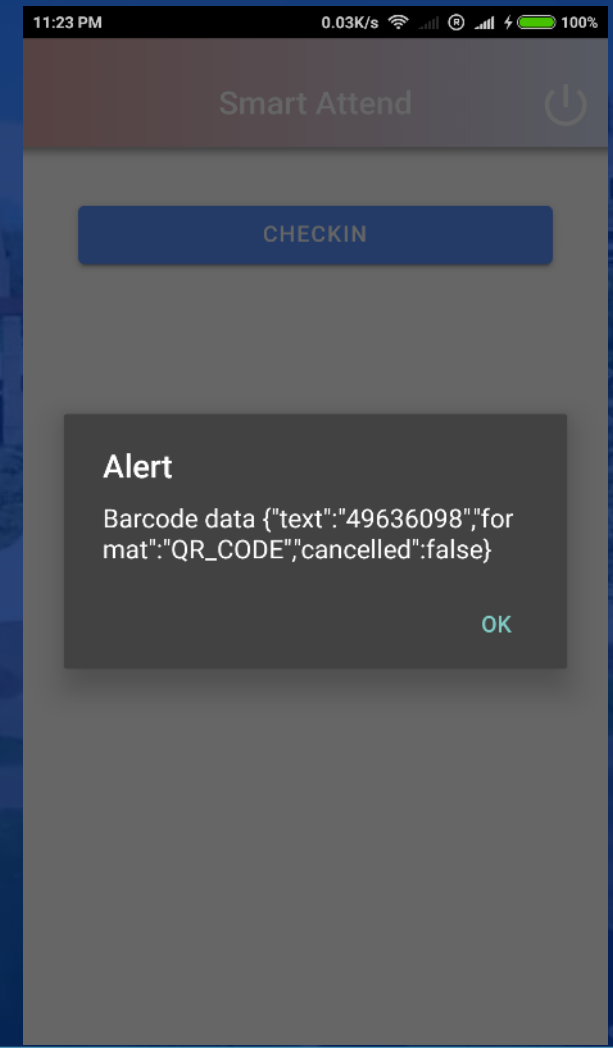
Check in



Scan QR Code



Alert



Final Presentation

UMKC


Smart Attend V1.1



Successfully Deployed in
play store

4:35 AM 0.05K/s 65%

← 🔍 ⋮



UMKC Smart Attend

Chakra Pavan Kumar Kota

Education

UNINSTALL OPEN


What's new ●

Last updated May 1, 2019
UMKC Smart Attend Release

Implemented features:

[READ MORE](#)

Your Review



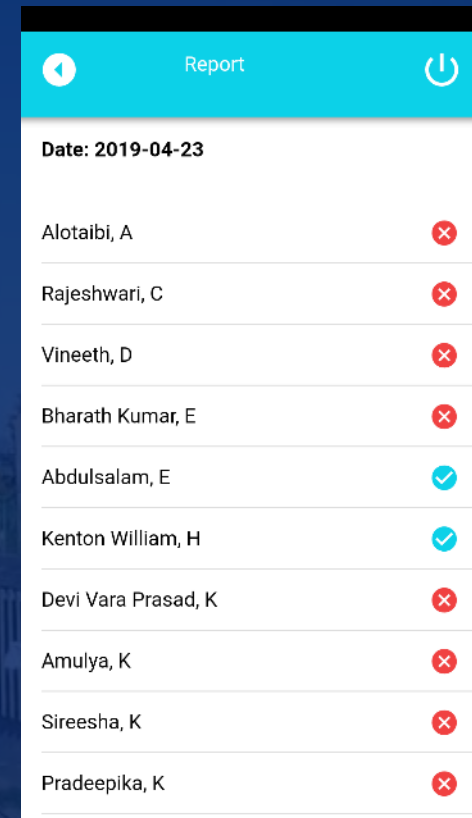
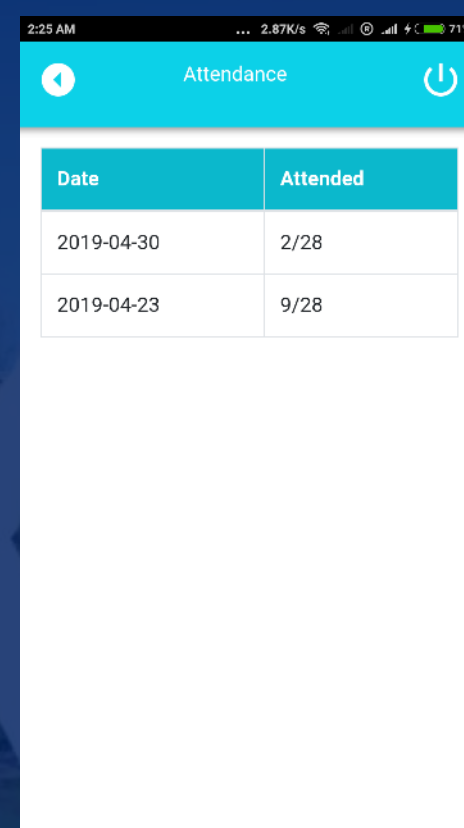
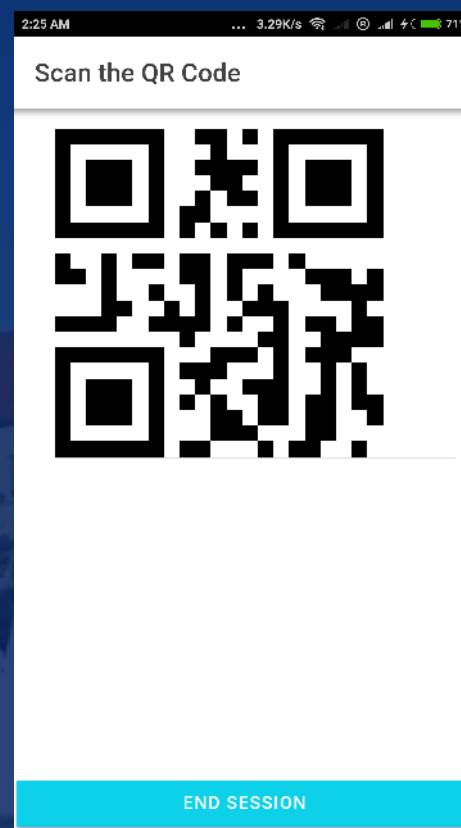
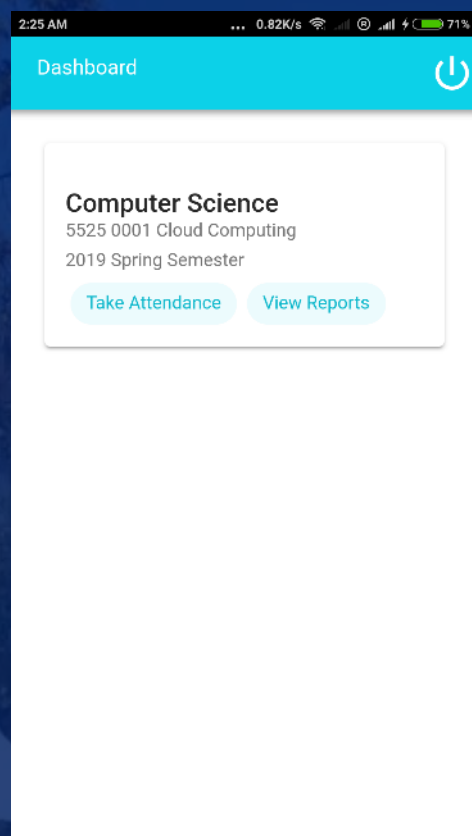
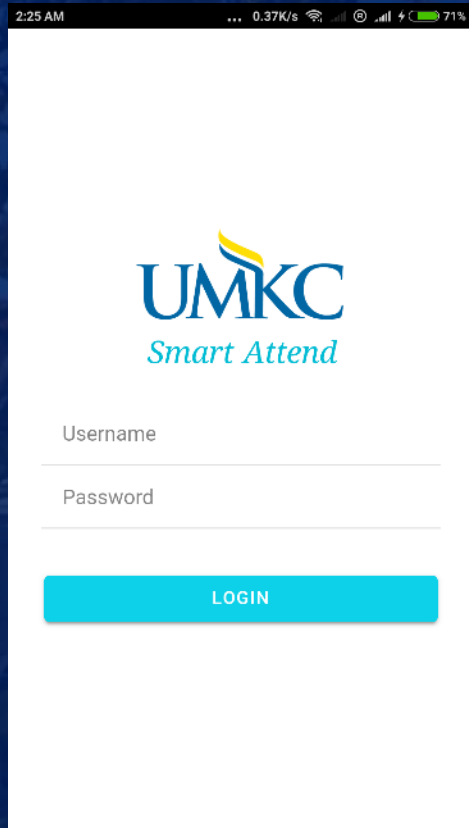
Pavan Kota

★★★★★ 5/2/19

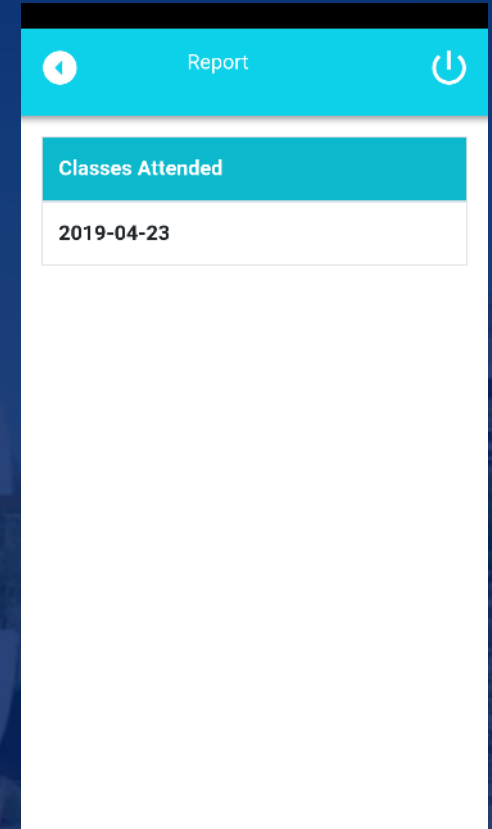
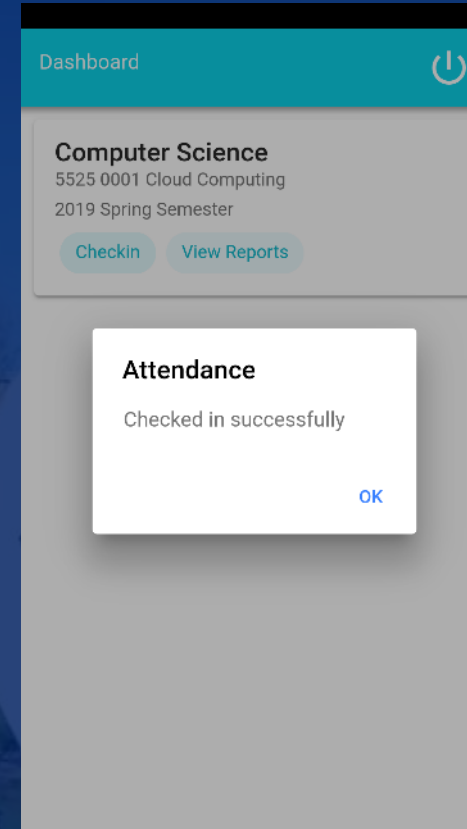
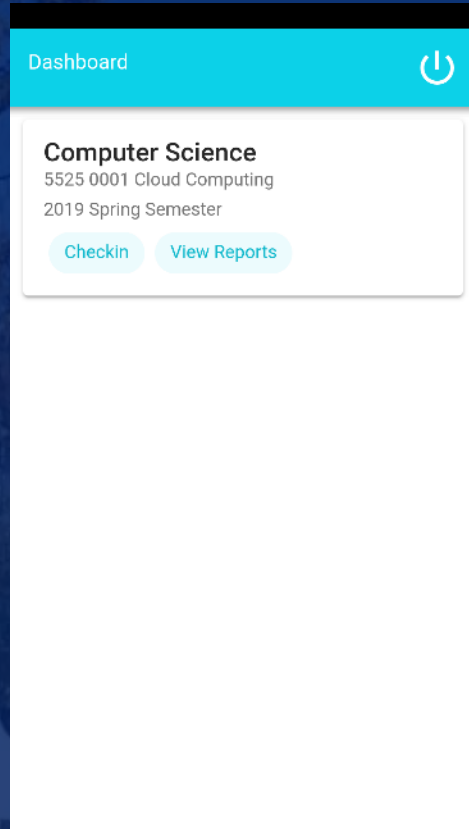
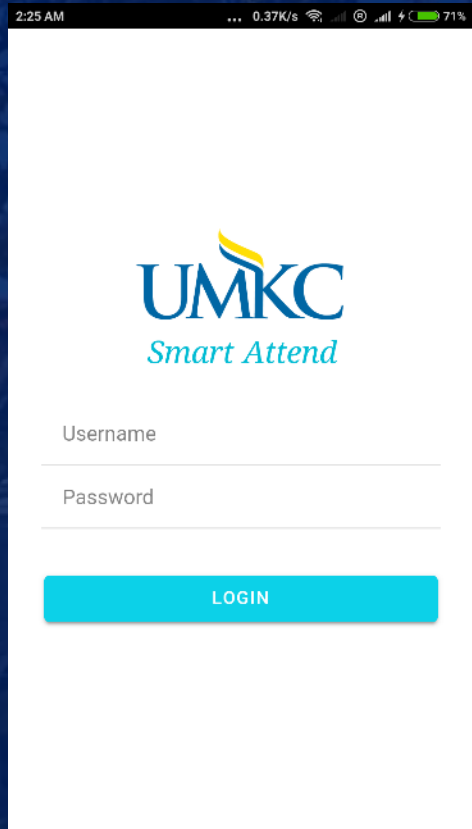
[Edit your review](#)

Developer contact ^

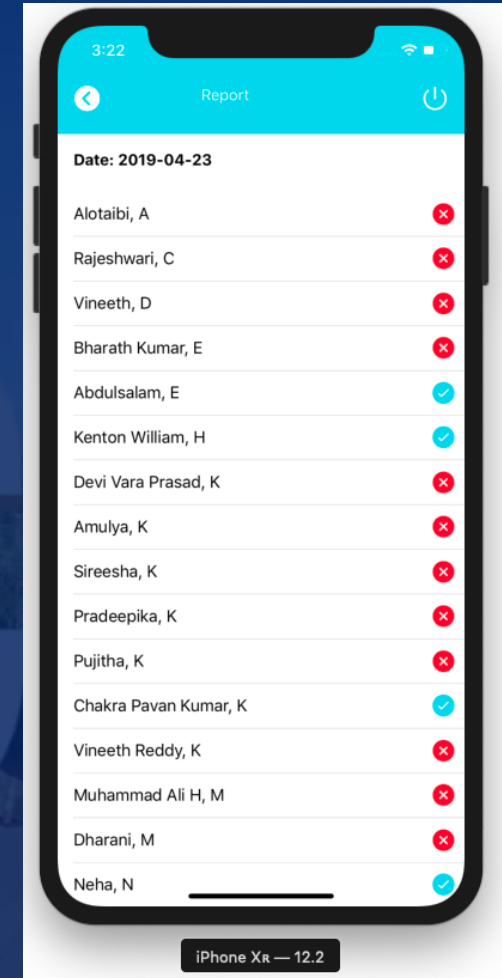
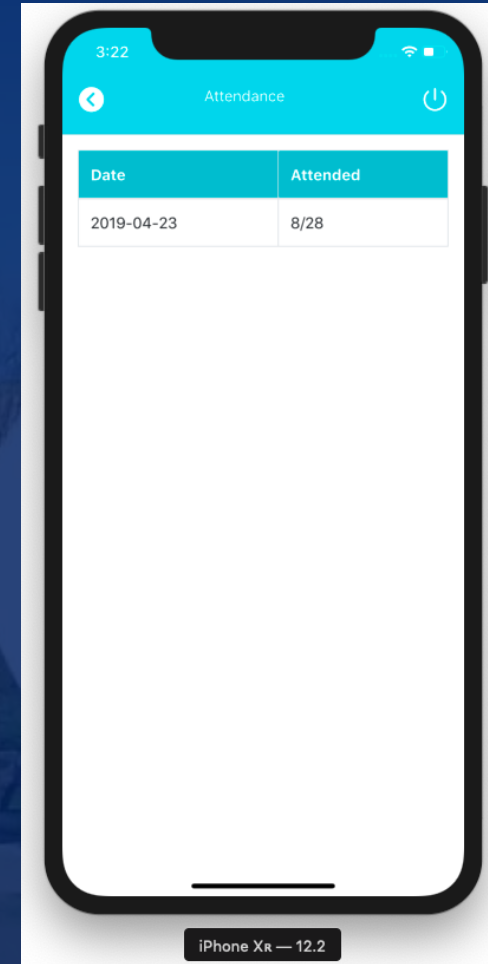
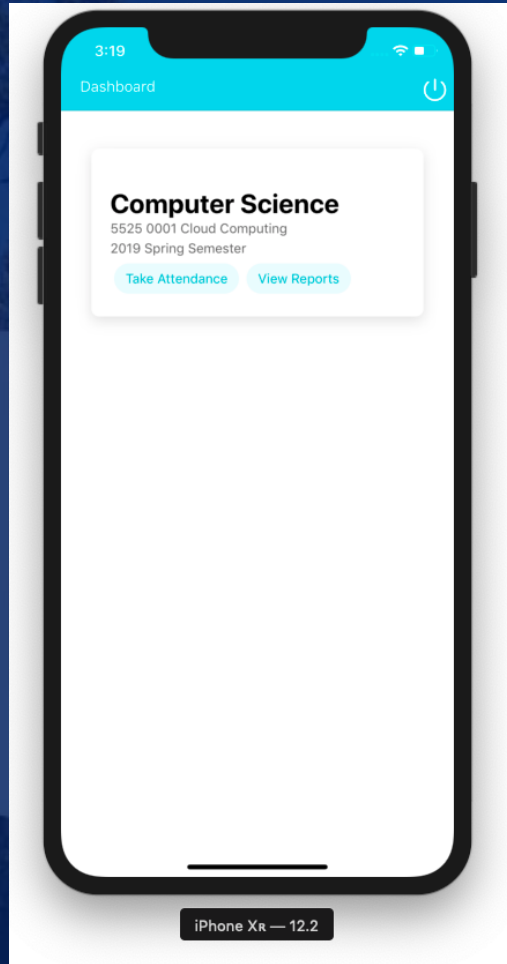
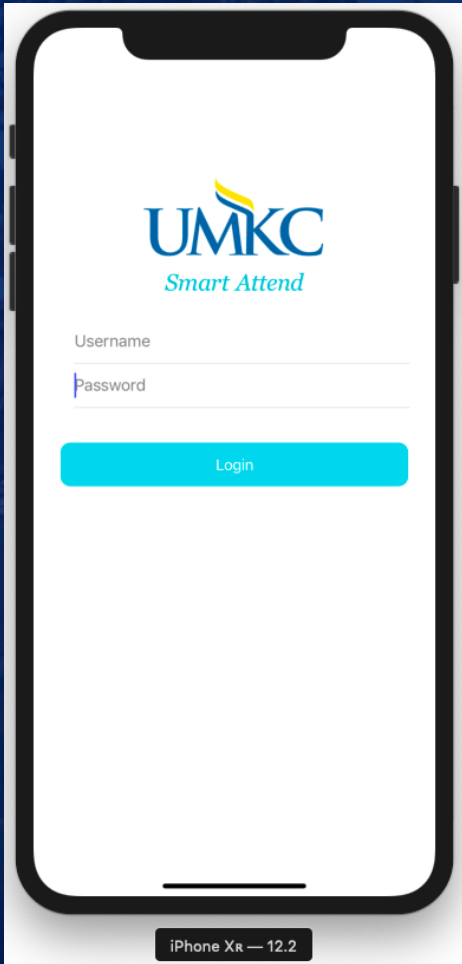
Android : Instructor app Screenshots



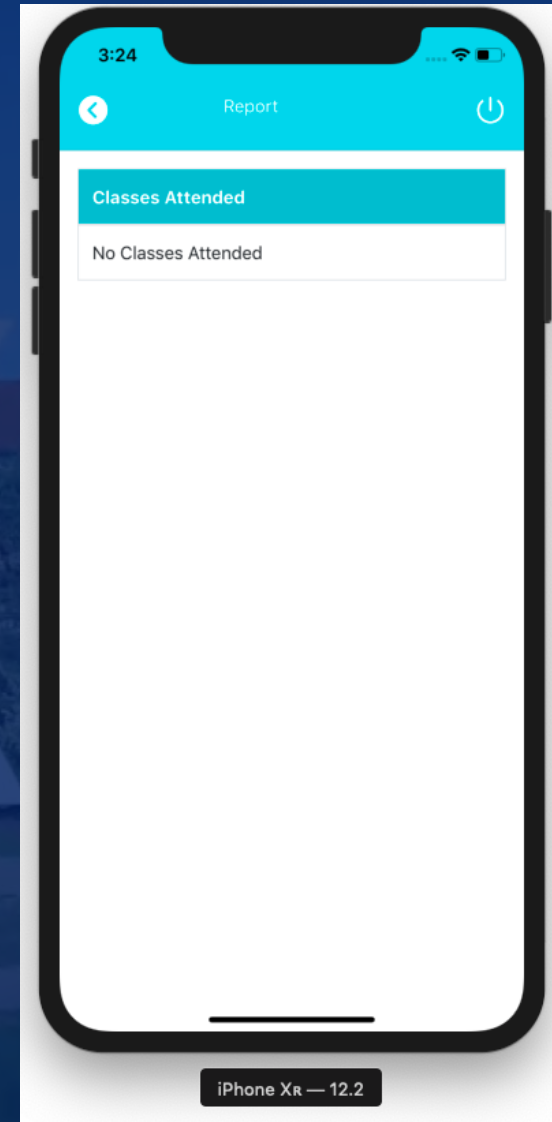
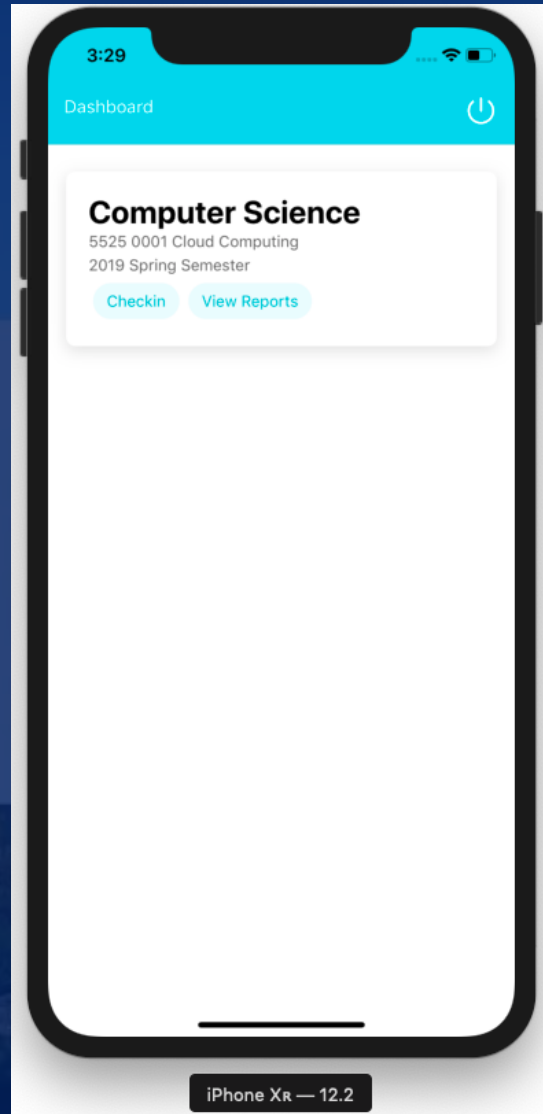
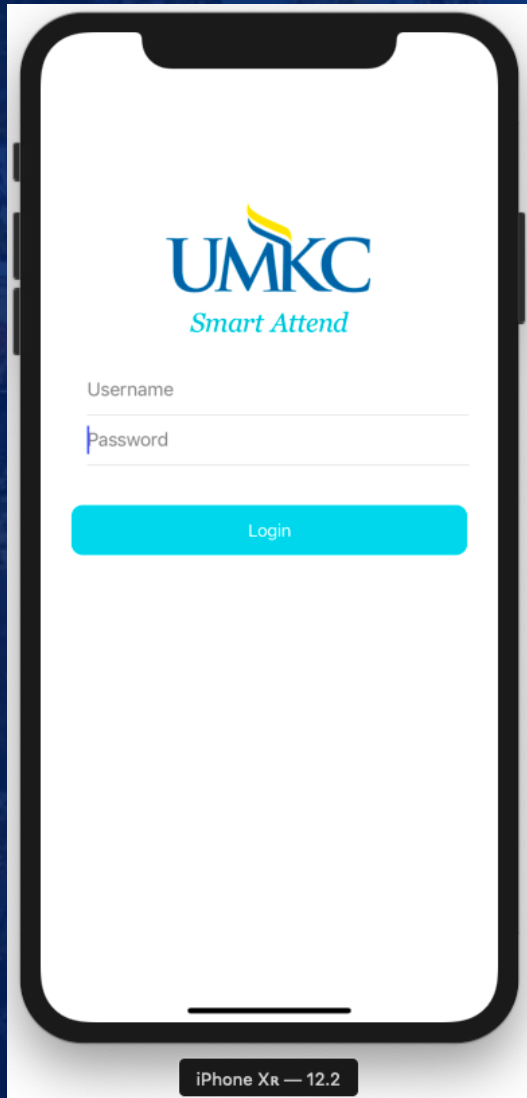
Android : Student app Screenshots



IOS : Instructor app Screenshots



IOS : Student app Screenshots





Challenges and Findings

New QR code generation
after every check in.

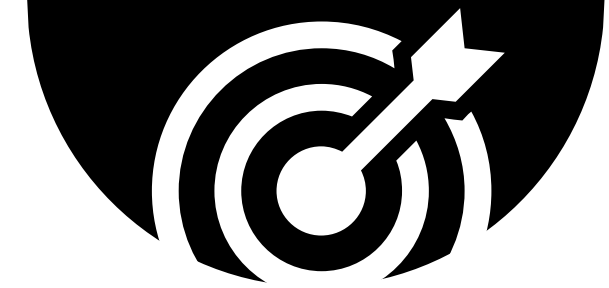
Socket implementation

Deployment is needed for every
change in backend

Implemented CI/CD using GitHub
and Heroku.

Digitally signing apk is a
cumbersome process

Hunted through google
documentation.



Product Outcomes

1

Built an attendance app

2

Easy to use

3

Support IOS and Android

Team

Individual Outcomes

Chakra Pavan Kumar, Kota

1. By end of the project I had hands-on experience on mentioned software tools.
2. Explored the functionalities of cloud services.
3. Developed and published IOS and Android app.
4. Worked and collaborated in an efficient way with team.

Dharani Muli

1. By end of the project I had hands-on experience on mentioned software tools.
2. Also gained knowledge of the best coding standards.
3. Improved collaboration skills working in a team.

Smart Attend

UVA

Thank you