

MOBILE COMPUTING MIDSEM DEMO

Team: AugmentedBOI

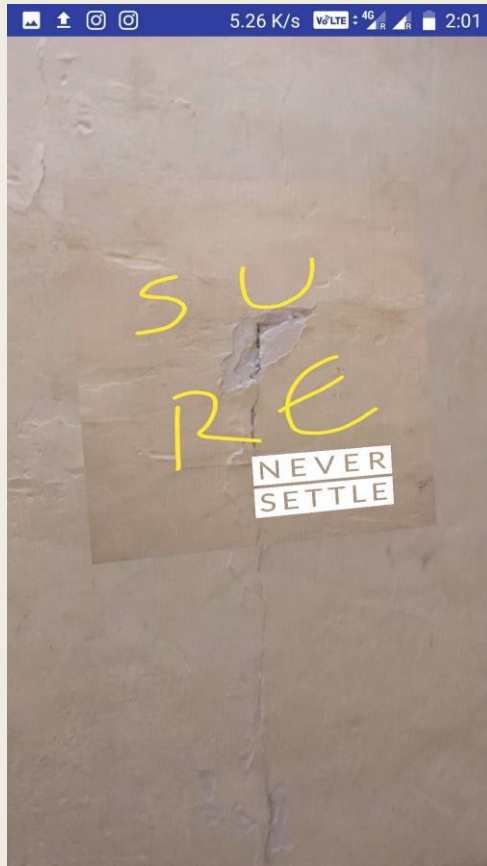


Team

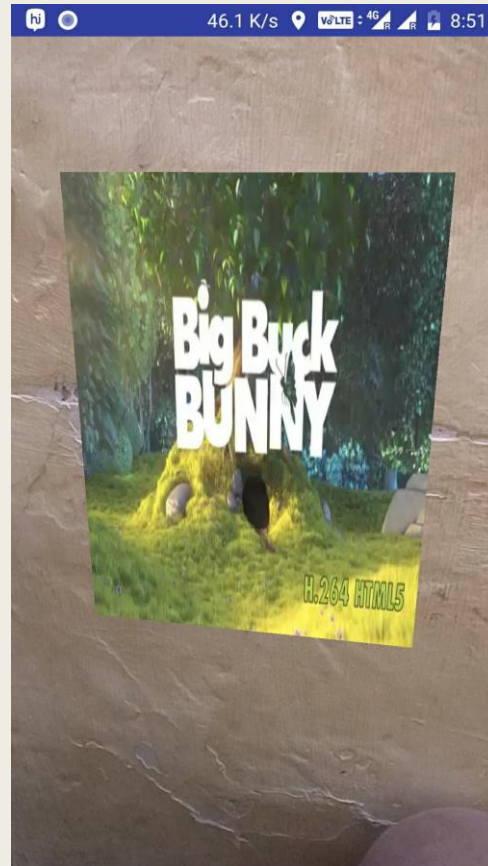
- Surender Singh Lamba, 140050075
- Chaitanya Rajesh Banala, 140050073
- Sri Surya Teja, 140050055

STRAIGHT TO SOME PREVIEWS

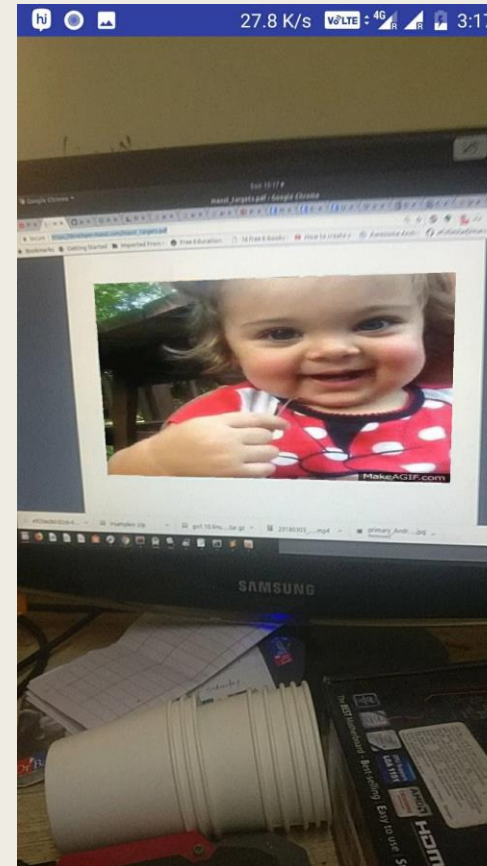
... BECAUSE ITS AR



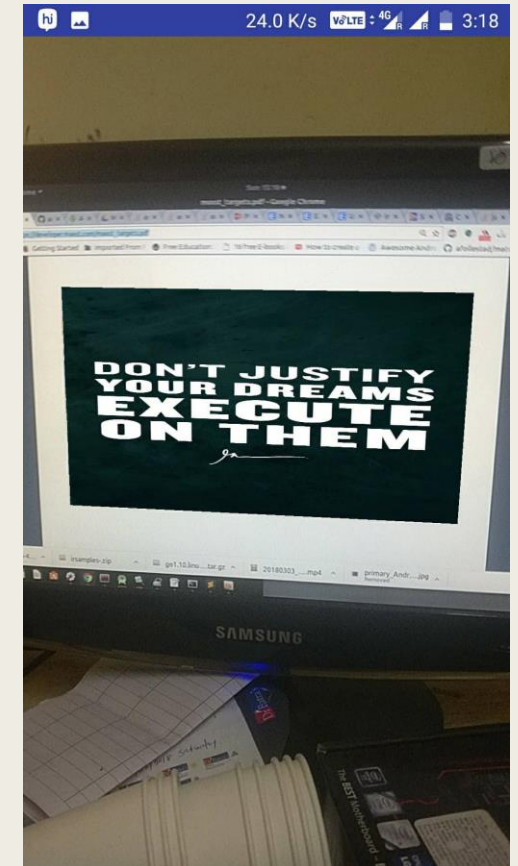
Drawing Graffiti on the walls



Playing videos, maybe leaving videos on someone's wall. literally

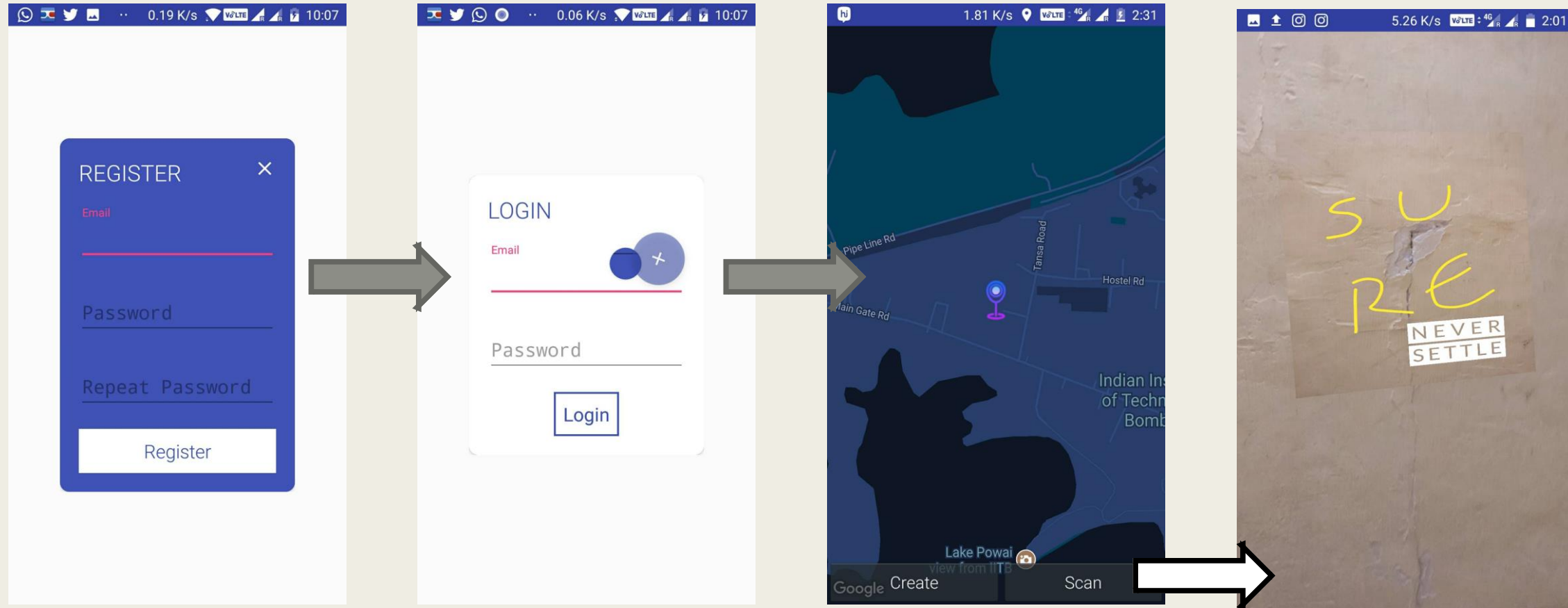


Putting memes/gifs



Putting motivation INTO work

UI FLOW



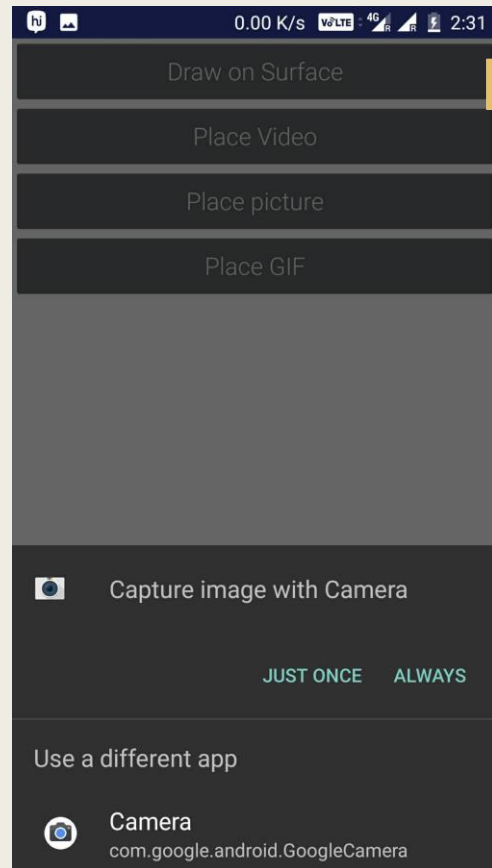
Register Screen

Login Screen

Home/Maps Screen

Scan/AR Screen

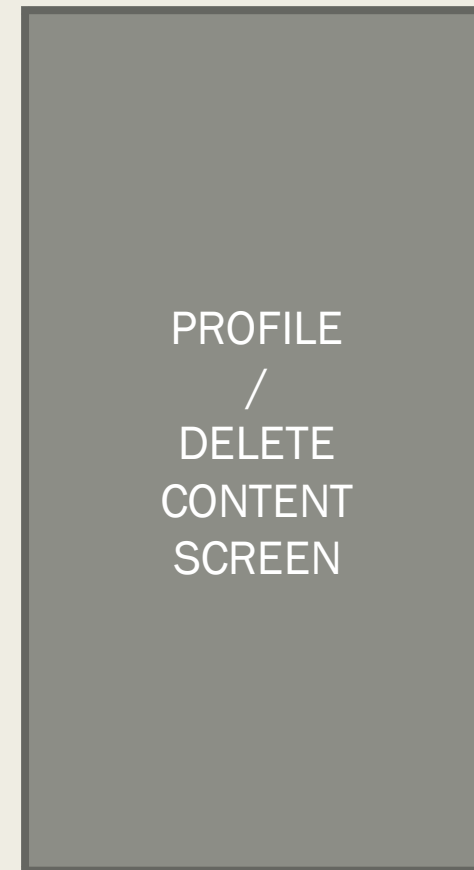
UI FLOW



Create Screen



Drawing Screen



Delete/viewing uploaded
content screen

BRIEF DESCRIPTION OF WORKING OF APP

- The home of the app is the Maps Activity which shows where all in the nearby places are the AR experiences available
- The Scan Activity looks for any saved targets available in the cloud and places content over it if found
- The Create Activity on entering lets you take a picture for the base of AR content
- Then one of the four modes, drawing, picture, video or gif can be selected and placed on the base
- The draw method launches intent for any editing apps available or launches system app
- All these methods on returning, push base to recognition server, content to content server appropriately

BACKGROUND SERVICES

- App is subscribed to GPS updates every few seconds
- There is a background service to refresh markers of nearby AR content every few minutes

WEB APIs

- AR Target:
 - POST /targets/ application/json : pushes ar target image
 - Body:
 - {
 - "image":"Base64encodedstring",
 - "active":"1",
 - "name":"targetName",
 - "size":"5",
 - "meta":"496fbbabc2b38ecs3460a...",
 - "type":"ImageTarget",
 - "date": "2016-05-27T09:15:39.559Z",
 - "appKey": "test_app_key",
 - "signature": "sha1 signature"
 - }

WEB APIs

- AR target delete
 - POST /target/<targetid> application/json
 - DELETE /target/e61db301-e80f-4025-b822-9a00eb48d8d2?date=xxx&appKey=xxx&signature=xxx
 - HTTP/1.1

WEB APIs

- Login
 - POST application/json
 - {email:email, password:password}
 - Response: application/json
 - {statusCode:N, key:key}
- Register
 - POST application/json
 - {email:email, password:password}
 - Response: application/json
 - {statusCode:N}
- Content upload
 - POST application/json
 - {content:Base64encodedData, key:key, latitude:lat, longitude:long}
 - Response: application/json
 - {statusCode:N}
- Marker download
 - GET application/json
 - {key:key, latitude:lat, longitude:long}
 - Response: application/json
 - {statusCode:N, nResults:N, results:[{lat:LAT, long:LONG} {lat:LAT, long:LONG} {lat:LAT, long:LONG}]}

ADDITIONAL LIBRARIES

- This app uses FFMpeg binary on shell to convert everything to mp4
- Image compression is done inorder to lower latency
- SQLite is used to maintain local data of available content and locations
- Okhttp is used for Asynchttp requests
- AR development SDK is used for hosting ar targets

NEXT POSSIBLE DIMENSION?

