We regularly interact with a lot of people around us and notice problems they face on a day-to-day basis. As a product manager you have a keen eye for such hurdles and acknowledge the need to work on it.

Tell us about a real-world problem that you have observed around you which can be solved using a digital product.

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- Why did you choose this problem and what potential impact can solving it create?
- Which parts of the problem will you solve for first and why?
- How will you use technology to solve it?
- How would you measure whether the chosen solution is working?
- What might be the reasons for this chosen solution to fail?

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Problem

20* Cr+ children studying Class I to Class X in rural India

Most of them using parent's smartphone to study

Sometimes disturbed by incoming calls and notifications

5 out of 7** parents not sure if their child is studying or doing timepass on the smartphone

Majority of them not that much concerned about education or not aware about parental control app

Difficult for teachers to oversee what 40+ students are doing during a 60 min online class

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Impact of Solving

Area Under Radar

Assurance to the parents that their child is on the right track

Opportunity for the students to focus on class than incoming calls and notifications

Capability for teachers to focus on teaching without worrying about whether students are digitally distracted or not

The interaction of teacher and students during the online class

Why?

Since most students use parent's smartphone

We can't reject calls and notifications all the time

It's inappropriate to track smartphone usage all the time

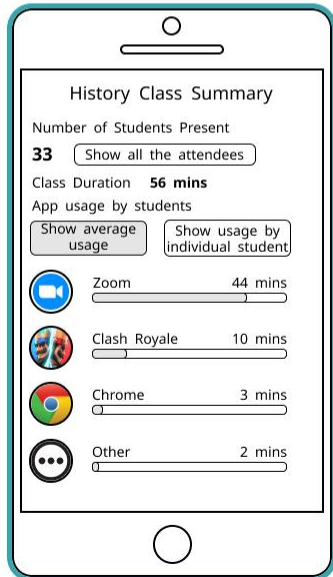Teacher may mistake parent's phone usage for student's

555-555-555
123-456-7890
555-444-3333

I didn't even opened whatsapp yesterday, still teacher scolded me : (

Solution

We will create an app that:

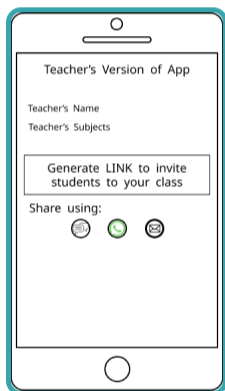Tracks student's smartphone usage during the class

Rejects incoming calls and notifications on student's phone while in the class

Lets teacher know what students were digitally doing during the class

History Class Summary

Number of Students Present
33 [Show all the attendees]
Class Duration **56 mins**
App usage by students
[Show average usage] [Show usage by individual student]

Zoom		44 mins
Clash Royale		10 mins
Chrome		3 mins
Other		2 mins

How will it work?

Teacher installs the app, creates an account and authorises app to manage zoom* on the behalf of the teacher

Teacher's Version of App

Sign Up   Sign In

Email

Password

G Continue using google

Teacher's Version of App

Teacher's Name
Teacher's Subjects

Generate LINK to invite students to your class

Share using:

Teacher then sends an invite to install student's version of the app and signup to join the class

Students install the app, signup, provide zoom id and grant app permission to usage access, calls, messages, contacts, notifications and storage
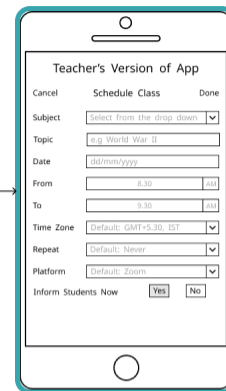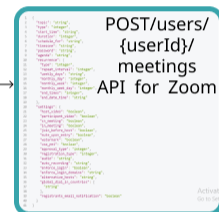
Students' Version of App

Student's Name

Give (App Name) permission to:
- ⊙ Usage Access
- ⊙ Calls
- ⊙ Contacts
- ○ Messaging
- ○ Notifications
- ○ Storage
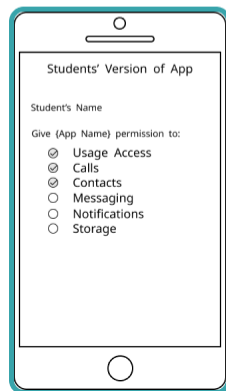
*zoom is taken for the sake of understanding, this will be done with all major videoconferencing platforms
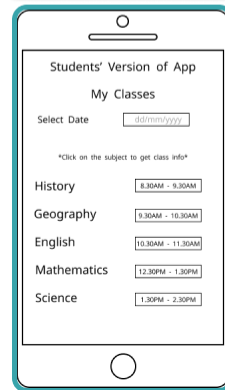
Teacher schedules class(s) on the app itself

The app schedules the class using POST/users/me/meetings and notes the meeting details

POST/users/{userId}/meetings API for Zoom

Teacher's Version of App

Cancel   Schedule Class   Done

Subject   Select from the drop down
Topic   e.g World War II
Date   dd/mm/yyyy
From   8.30   AM
To   9.30   AM
Time Zone Default: GMT+5.30, IST
Repeat   Default: Never
Platform   Default: Zoom
Inform Students Now   Yes   No

Students receive the class link in the app

GET/meetings/{meetingId} API for Zoom

Students' Version of App

My Classes

Select Date   dd/mm/yyyy

Click on the subject to get class info

History	8.30AM - 9.30AM
Geography	9.30AM - 10.30AM
English	10.30AM - 11.30AM
Mathematics	12.30PM - 1.30PM
Science	1.30PM - 2.30PM

From the time meeting is supposed to start, the app checks the status of the meeting using GET/meetings/{meetingId} every fixed interval till the status changes to "in progress"

If teacher don't start the meeting, then the app checks status till the end time of the meeting

How will it work?

During the Class

As the status of the meeting changes to "in progress", the app fetches the participants details using GET/metrics/meetings/{meetingId}/participants at the fixed interval

For all the students who are in the meeting, the app then measures smartphone usage for the entire duration of the meeting along with attendance time of every student

The app also auto rejects all the incoming calls with a message stating the expected time when the caller can call again e.g. 15 mins after the end of the class

The app also blocks all the notifications from popping up on the smartphone for the duration of the class

GET/metrics/meetings/{meetingId}/participants API on Zoom

Considering the difficult times, the students will also be given the option to turn this feature off to tackle emergency situations

Seamless Learning :)

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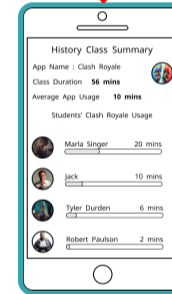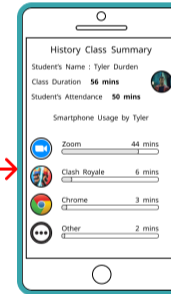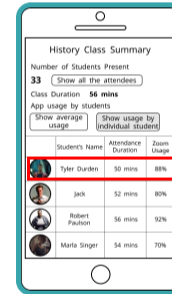
After the Class

The teacher receives summary of the class containing attendance with duration, app-wise summary and aggregate as well as student-wise smartphone apps usage, which can be used by the teacher to correct student's behaviour
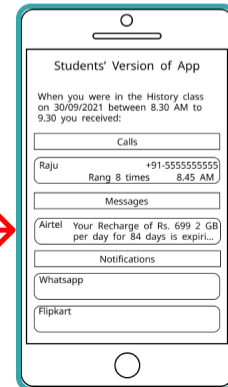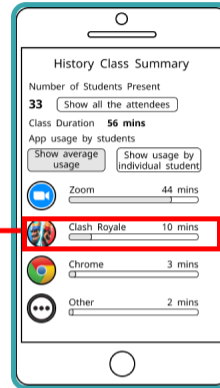
Student-wise App Usage Summary

Individual Student App Summary

App-wise Usage Summary

Aggregate App Usage

The student receives the rejected calls and blocked notifications, which can be shown to the parents to act upon

Metrics

North Star Metric | %age of time spent on the core app (here Zoom) while in the class

Reach | Number of teachers reached

Activation | %age of New Teacher's onboarded who completed the first meeting within the first week

Engagement | Number of classes completed per active* teacher per week

Retention | Daily / Weekly / Monthly / Quarterly Active Teachers

Net Promoter Score

*active teacher is someone who has completed at least one class using app in a given period

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Possible Failures

Multi Device Login | In case a student has logged into two or more devices, the app may not function as intended

Outliers | Students who use laptop or any other device which the app doesn't support won't be considered by the app to monitor usage

Privacy and Security | Since we are asking teachers to give video conferencing account authorization, some teachers might not use our app over privacy concerns

Smart Students | Some students might deny the usage access. In such cases we can notify the teacher for the intervention.

Future Scope and Improvements

The app can be used to share resources with students

The app can be used to submit exams and homework

The app can be used to minimize plagiarism during exams

Thank You!

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