**Team Details**

**Team Name - UnicornDev**

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Problems Statement Identified

**What was the new normal in 2020?**

Online classes and digital events.

* 80% of all events that took place in 2020 were online.
* 99% of all educational institutions had to switch from offline to online.
* There are pros and cons to this model.

**What are the cons? and who are affected the most?**

* ***Students who don’t have access to sufficient bandwidth.***
* Students from developing cities and rural areas.
* Online classes that repeatedly lost connection made it tedious for students to learn and understand the topics.
* An average online class lasts for 4 - 6 hrs.
* High quality like streams will cost 810Mb to 2.4GB per hour.
* Low quality like streams will cost 280Mb - 630Mb per hour.

Solution proposed

**Product Name** - UnicornTeach

*“A platform that is meant for conducting online classes and presentations.”*

**Reason and cost**

* Streaming video & audio from the presenter is really expensive even if there is not a lot of things going on on the screen.
* This causes the data consumption to be higher.

**Existing solutions**

* 90% of the online classes are conducted on platforms like google meet, zoom etc.
* These platforms are made for video calling/streaming.
* They are optimized for video calling rather than conducting presentations and online classes

***“Google Meet is a video-communication service developed by Google.”***

***“Zoom Video Communications, Inc. It provides videotelephony and online chat services through a cloud-based peer-to-peer software”***

An **efficient** approach & How to **improvise** without developing an infrastructure?

* Rather than streaming content like its a movie.
* Passing the information of movement can be a lot efficient.
* eg. If a hypothetical tutor moving the mouse to draw a line at the axis(x, y) to the axis(x2, y2) that data of movement can be passed to the client (student’s machine ) making the student’s machine draw that lines automatically rather than **streaming large chunks of data of the whole screen**.
* This approach can most benefit when the tutor explains topics by **writing and drawing**. Which is what is happening in most cases.
* This can be **insanely** useful in saving data consumption and bandwidth.

Advantages

* Disconnecting from classes happens way less as there are no huge chunks of data to be downloaded.
* ***This approach will make “Students who don’t have access to sufficient bandwidth” also feasible towards online classes.***