

Lessons From Edtech Frontlines: The Teachmint Experience

By Samuel Abraham & CDOTrends editors on October 11, 2022



There was nothing unique about how Anshuman Kumar started his venture.

Like any other startup at the time, he observed gaps in the way teachers and students interacted during the COVID-19 pandemic. The teachers used Zoom or Google Meet to deliver video lectures while they shared academic content on WhatsApp or Telegram. Meanwhile, student-teacher interactions occurred on Google Classroom or Microsoft Teams.

So, Kumar used his robotics and artificial intelligence experience to unify the disjointed teacher-student experience with [Teachmint](#).

Creating the right edtech ecosystem

Teachmint provides a cost-effective edtech solution that incorporates a modern learning management system (LMS) on a platform that automates and simplifies school management. It manages classroom operations, fee payments and financial reporting, admissions, and automated attendance logging. It also offers various teaching and learning tools and advanced communication methods for teachers, parents, and students.

Teachmint delivers rich multimedia content on students' devices of choice, including smart TVs, along with advanced analytics on student progress and lesson engagement. To do this,

Teachmint needed an open source, flexible, and scalable platform to make the teaching and learning process immersive for teachers and students alike.

For Teachmint, Google Cloud was an obvious choice as the platform provided access to the vast Google ecosystem making innovation more accessible. In addition, the startup eyed Google Cloud's flexibility, ease of use, and the fact that GCP did not require extensive coding in the backend to get an edtech platform live and running in a short time.

From his experience, Kumar says that it was possible to launch an edtech startup and product within two to three months with Google Cloud because of the Google ecosystem and the in-built customizations for edtech readily available on Google Cloud.

Teachmint launched its app in 20 days. Stepping back, Kumar told a forum organized by Google Cloud for edtech startup founders in Bangalore, "Of course, that wouldn't be possible in the normal course of things since you would have to procure a server first and then create the customizations required to run an edtech operation."

Reducing security complexity

Security and identity management was another challenge that Google Cloud helps edtech startups manage with ease. "When your edtech startup scales and has 10X the users it had a month back, you need permission management and the kind of permission management capabilities that Google Cloud provide, I would say aren't possibly available anywhere else," says Kumar.

Organizations can set detailed policy-level controls over which data from whom can ingress or egress the system at a granular level. Google's integration of Firebase IAM (Identity and Access Management) helps startups grant granular access to specific Firebase and Google resources and prevents unwanted access to other resources. With the principle of least privileged access, startups can give remote customers access to only the resources necessary.

The proliferation of devices of various types and the variety of application environments expanded the potential attack surface for edtechs. So, Google Cloud re-engineered systems and processes for Zero Trust. The Google Cloud Security Command Center identifies threats and highlights how likely they will become events down to virtual machine levels.

Anubhav Wahie, regional leader for cybersecurity solutions at Google, told the forum that with every security challenge, leaders simply added new tools that had to be tested and deployed, taking a lot of time and effort and adding immense complexity to the infrastructure.

"Google Cloud's security capabilities go beyond GCP. We have built capabilities that are agnostic to the fact that your startup might be using a public cloud or that it might be operating in a hybrid cloud environment. Google Cloud's security capabilities reach down to the hardware level. We have married chip-level security with today's zero trust framework to protect startups from most types of phishing attacks," said Wahei.

Democratizing AI and ML

Google Cloud platform makes it easier for edtech startups to take advantage of AI and ML, from managing data stores, data warehouses, and data lakes, to providing a cloud-based ML platform.

“From taking that raw data and having a layer of processing on it in a serverless and scalable fashion, storing it according to classification, and analyzing it on [BigQuery](#), which is our data warehousing platform, Google Data Cloud links these processes all together to recommend accurate actions back to the user,” said Nitin Vohra head of education and edtech for Google Cloud at the forum.

Regarding leveraging AI and ML, Kumar noted that with Google Cloud’s inbuilt AI and ML capabilities, models that took two months to train, test, and put into production on other platforms were put into production using Google Cloud in two weeks.

To make life easier for startups, Google Cloud provides the ability to build, deploy, and scale machine learning (ML) models faster, with fully managed ML tools for any edtech use case. To save time and effort, startups can quickly build models in [AutoML](#) with limited ML resources. Companies that employ data scientists can innovate faster with purpose-built tools for training, tuning, and deploying ML models.

An optimized AI infrastructure helps startups reduce training time and cost. Moreover, Google Cloud makes it easy for edtech startups to add vision, video, translation, and natural language ML into existing applications or build new intelligent applications across a broad range of use cases, including [translation](#) and [speech-to-text](#).

Support becomes crucial

Ashish Wattal, country head for public sector and edtech at Google Cloud, claimed at the forum that Google Cloud has the answers from price to scale to analytics and resource optimization. He also urged startup founders to explore the endless possibilities that Google Marketplace, a marketplace for partner solutions integrated with Google Cloud, offered.

“Google Cloud likes to be known as the aggregator of all application portfolios that the Google Cloud ecosystem partners (that are users of Google Cloud themselves) bring to Marketplace. You can find practically all the assets that you require to make your project a success here. There is a huge repository of assets in the backend that startups can readily access.”

Wattal also pointed to Google Cloud’s customer care as a unique advantage — which Teachmint’s Anshuman Kumar vouched for.

“As far as using Google Cloud for your edtech startup is concerned, the icing on the cake is the support they provide. I have raised issues for support in the dead of the night, and they have responded to my queries so fast that I wonder when they find time to sleep,” he concluded.