

Snapshot

Technology:
Apache Cassandra
on Azure

Sector:
Education Technology

Use case:
Personalization



Maths Pathway delivers personalized learning with the help of Cassandra and Instaclustr.

Overview

Maths Pathway is a company founded by a couple of classroom teachers who were sick of seeing some of their students left behind. They knew that there was a way of applying technology to the problem and ensuring that the learning needs of each student can be met in a more analytical and automated way.

The Maths Pathway solution helps educators structure the right maths course for their students by diagnosing a student's individual learning abilities and automatically assigning personalized work tasks. The solution also performs formative assessments to continually refine the learning program for the student.

Maths Pathway also generates reports for the teachers in formats applicable to the region in which the school is operating to provide continual feedback for the teachers.

 ***Instaclustr has enabled us to get underway quickly, the support team have been there from the beginning helping us to get it right the first time with our schema and architecture.*** 

Richard Wilson
Co-founder, Maths Pathway

Challenge

Maths Pathway is a company in startup mode, but they wanted a database and infrastructure that would grow with them. The team has some very ambitious growth plans and there was a need to implement the right technology the first time.

The team at Maths Pathway was also looking for a solution that enabled the analytical tools to perform a highly personalized solution for each of their end-point customers – the students, their teachers and their schools. Being a startup, the team from Maths Pathway was also looking for a managed service to look after their database and the backend infrastructure so that they could concentrate their resources on their application and customer acquisition.

Solution

Maths Pathway have taken the typical personalization use case of Cassandra to deliver a solution that enables the tailoring of individual maths learning programs for individual students. The performance of their database enables analytical computation and delivery of the ongoing individualized solutions for the students. Maths Pathway has achieved an amazing 180% growth since inception and are currently providing personalized assessments for over 15,000 students.

Cassandra has delivered the seamless scaling that the team is looking for, building the database for the future to ensure that the underlying infrastructure and technology will be able to grow rapidly with the company and future plans. As they add more regions, schools and students they just add more nodes. Having a managed service looking after the Maths Pathway Cassandra clusters has also allowed them to concentrate on continually refining algorithms and the Maths Pathway solution.

About Instaclustr

Instaclustr is a company with extensive experience in designing, deploying and managing critical infrastructure for open source solutions that require immense scale.

We deliver mission critical, high performance and always on data solutions for our customers. We provide managed and hosted services for open source data management solutions such as Apache Cassandra and Apache Spark. We also deliver a wide range of related consulting and support services for these technologies.

Instaclustr's consulting expertise leverages the experience we have gained from almost 10 million node-hours of managing Apache Cassandra and related technologies. Our staff includes experienced consultants with deep expertise in the technologies we support as well as extensive consulting experience.