KHAN ACADEMY USING GOOGLE APP ENGINE

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KHAN ACADEMY

Is a 501(c)(3)Non-Profit Organization

Founder: Salman Khan

Mission Statement: To provide a free, world-class education to anyone, anywhere.

KHAN ACADEMY CONT'D...

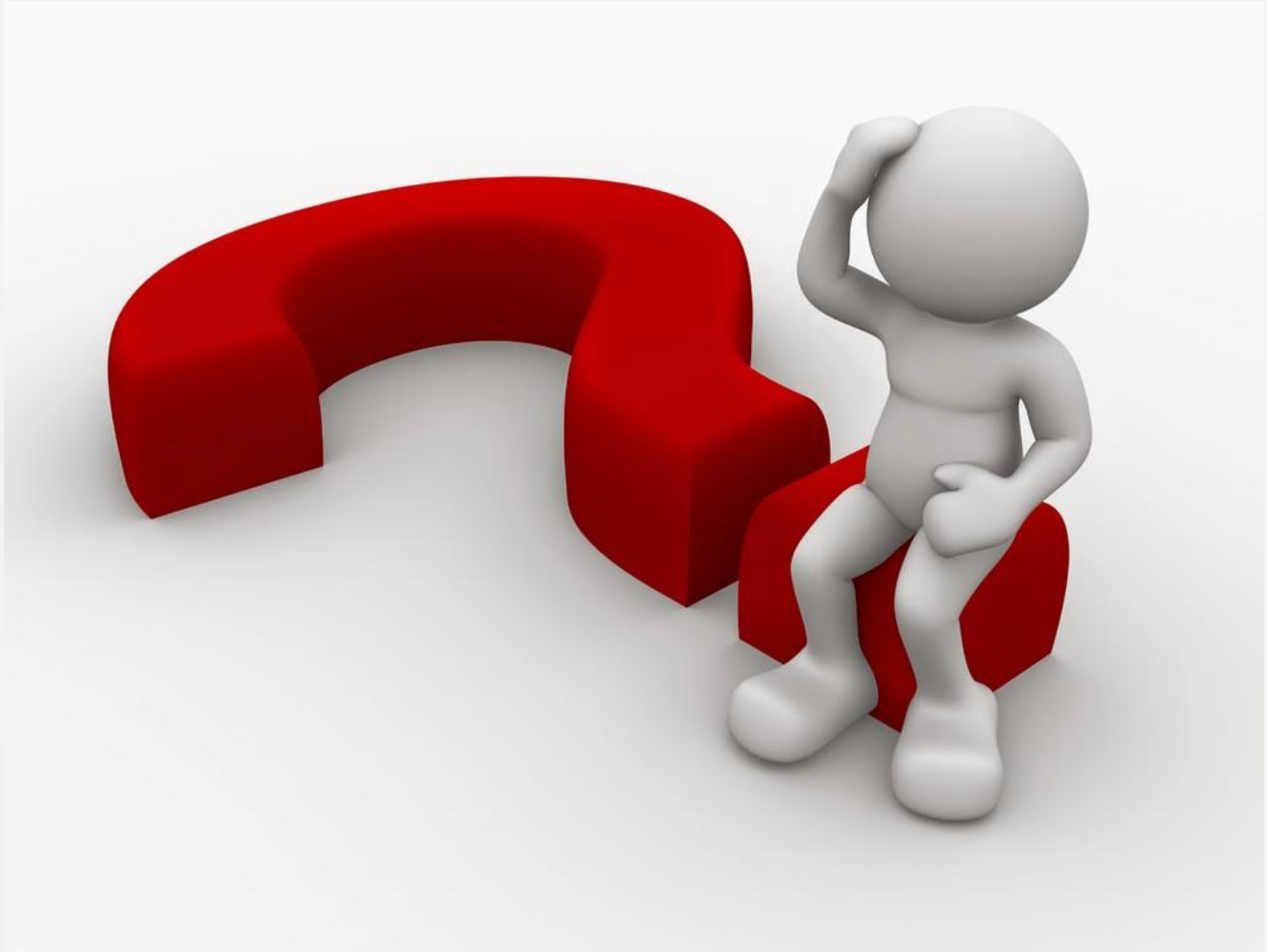
Khan Academy is an online learning resource, through tools such as practice questions, quizzes, videos, and articles.

These learning tools offer preschool to college level learning subjects.

Students can chart their progress through profiles they create via App Engine.

THE PROBLEM

* In order for Khan Academy to grow Khan and lead Developers stated that they must stop worrying about "technical and maintenance issues" and also "deployment issues and for Khan to stop running his own server". So that they make more videos for Khan Academy library.



COMPETITIVE STRATEGY

- The Competitive Strategy for Khan Academy is Differentiation-Focus
- Khan Academy is different from other resources by offering a 5-20-minute video rather than focusing to make a longer video of a conventional physical lecture

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THE SOLUTION

- Choosing Google App Engine as their hosting and application development platform
- By choosing Google App Engine " freed the team to focus on the user experience and the array of content that makes the academy such a powerhouse".
- It also resolved server and maintenance issues with a single solution

BENEFITS OF USING APP ENGINE FOR KHAN ACADEMY

Khan Academy benefits from using Google App Engine such as collecting data that is stored on the App Engine to help the organization find out what the most efficient videos are for students,

App Engine also takes care of the server support, which is when an organization needs systems running in the background to collect and track data.

The App Engine dashboard has information for the development team to keep track over the site performance.

GOOGLE APP ENGINE

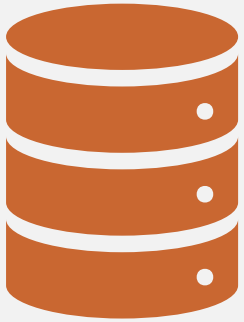
- Is PaaS(Platform as a Service).
- Build highly scalable applications on a fully managed serverless platform.
- Because of this you won't have to worry about managing the infrastructure.
- Is an integral part of Google Cloud Platform

GOOGLE APP ENGINE LANGUAGES

- When developing in Google App Engine you can use languages like Ruby, PHP, .NET ,GO , Java, Node j.s, and Python or bringing in your own language

GOOGLE APP ENGINE DATABASE

To store data and files you can use Google Cloud Platform Services or any other storage services that is supported by your language.



It uses two types of Relational databases Cloud SQL and Cloud Spanner

CLOUD SQL

- Fully manages database service for MySql,PostgreSQl and SQl Server
- Key Features
  - Scalability
  - Integrated
  - Security
  - High Performance
  - Availability
  - Migration

CLOUD SPANNER

- Fully managed, scalable, relational database service for regional and global application
- Key features
  - Global Scale
  - Fully Managed
  - Relational Semantics
  - Multi-Language Support
  - Transactional Consistency
  - Enterprise Grade Security
  - Highly Available

GOOGLE APP ENGINE ADVANTAGES

Infrastructure for Security

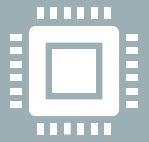
Cost Savings

Easy to Use

Scalability

Platform Independence.

GOOGLE APP ENGINE DISADVANTAGES

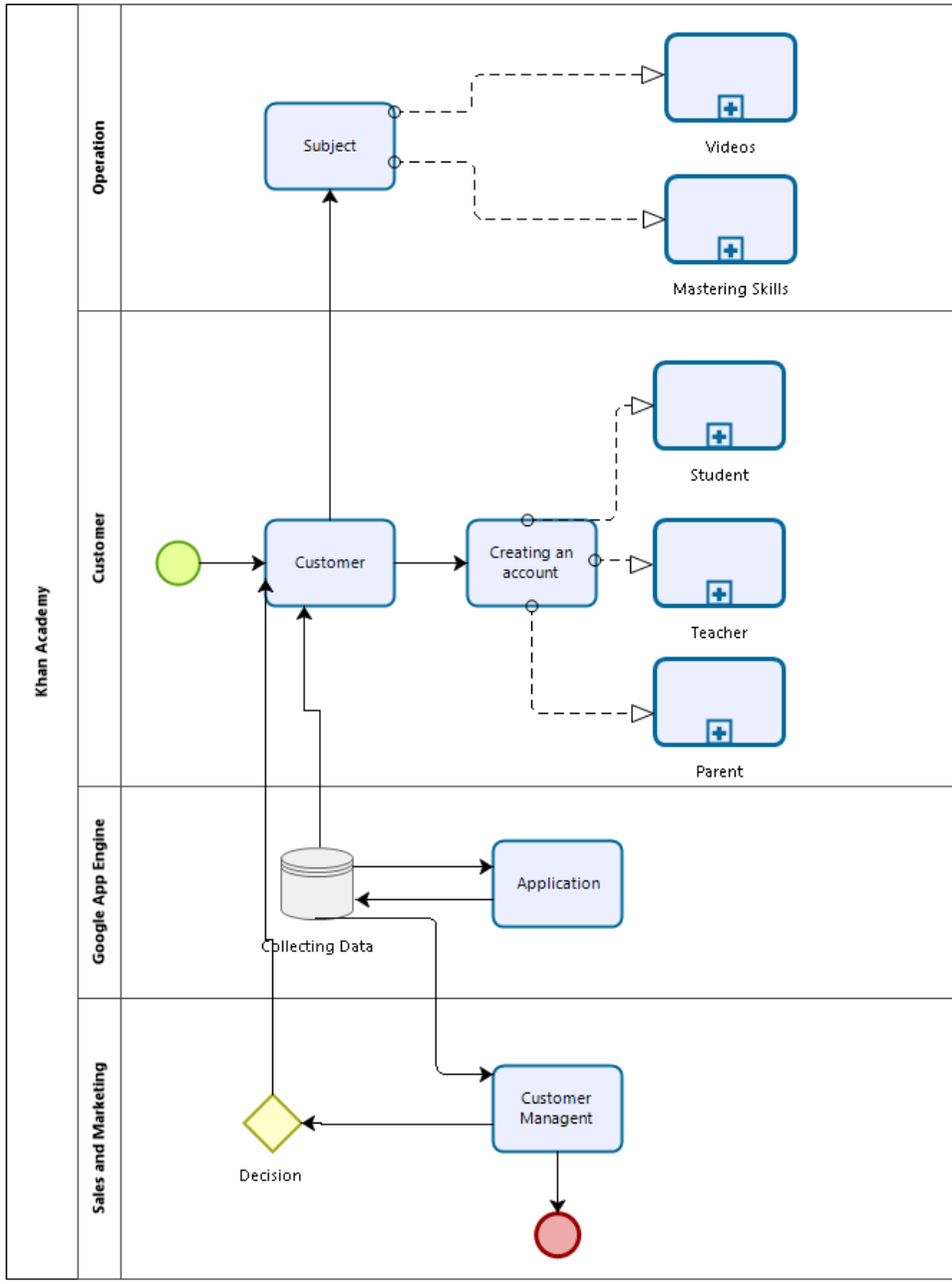


The google app engine disadvantages are such as the limit it has on language support of programs such as Java, PHP, Python, and go.

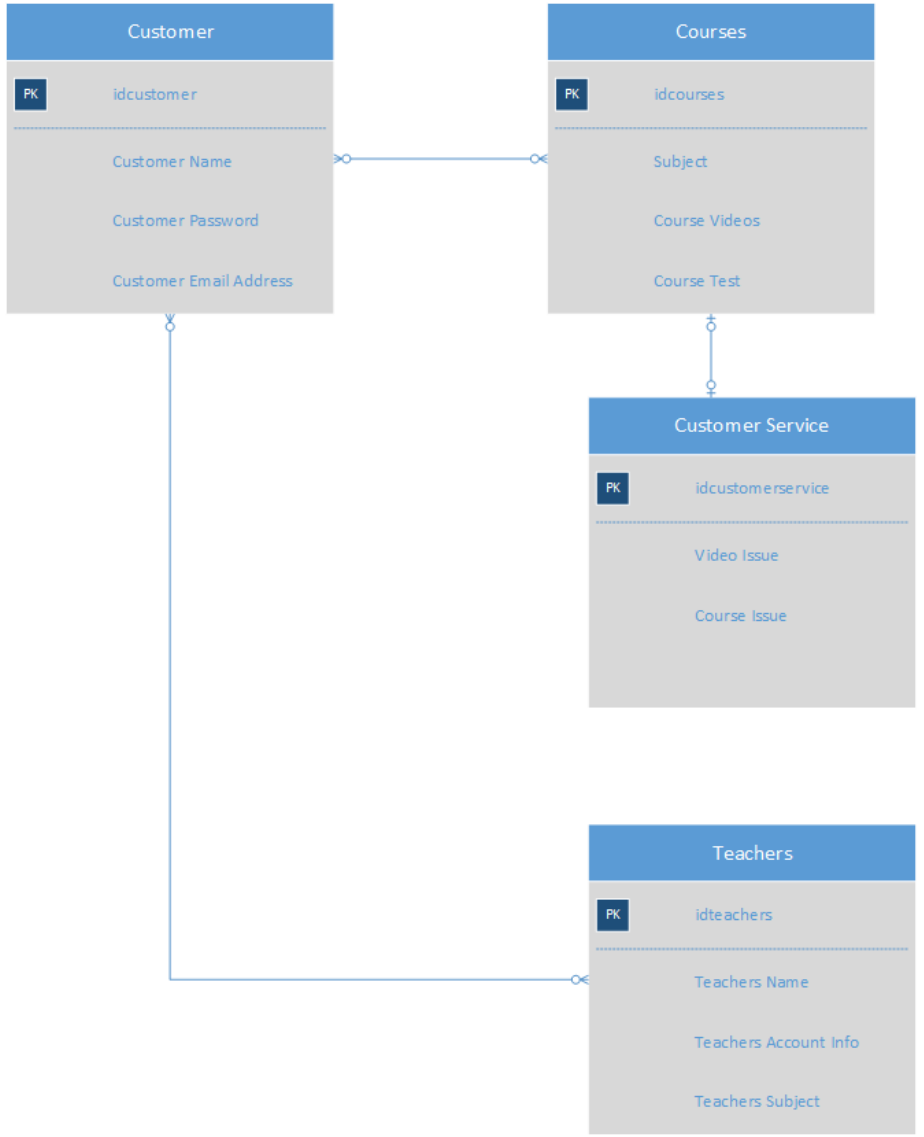
Another disadvantage it has is the cost to get support plan it way overpriced.

A disadvantage that google app engine also has is some sections of app engine are locked from using those services which requires you to hack to exceed the limitations.

BUSINESS PROCESS MODEL



ENTITY RELATIONSHIP DIAGRAM



FUNCTIONAL AREAS

CUSTOMER SERVICE

The customer service team is required to help out the people with their issues that they are having with the website.

GOOGLE APP ENGINE

Google app engine is used by the app which allows the students to interact more and studies show that students learn more by the interaction they have.

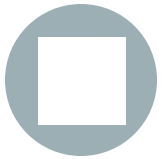
SALES AND MARKETING

The sales and marketing department is in charge of putting ads out to promote their company

OPERATIONS

Operations play a role in khan academy by the challenging the students by mastering new skills everytime.

THE RESULTS



The result of using App Engine help support 3.8 million unique visits each month.

Using this App Engine resolved Khans Academy server and maintenance issues altogether.

Using this App Engine allowed the team to focus on the actual product and user experience.

SUMMARY

In conclusion for Khan Academy choosing Google App Engine to host their organization helped the founders to be able to focus on their product and ways to make their organization grow. App Engine allowed them to have more free time since App Engine takes care of the server and maintenance issues. Khan Academy uses Porters differentiation focus strategy, which means that Khan Academy strives to offer a product that has unique features which the customer will not find elsewhere. Google App Engine is a platform as a service that is a fully managed serverless platform.

QUESTIONS?