CUSTOMER: MEDI KNOW GMBH

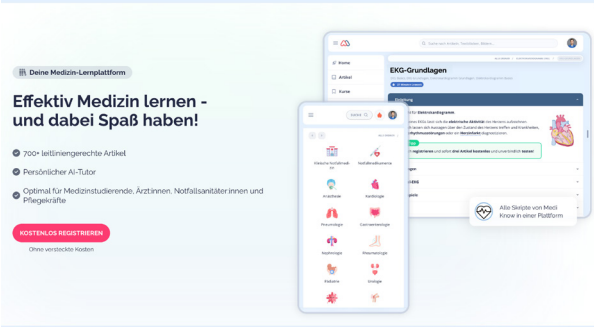
tecRacer brings growing Medi Know GmbH to the cloud

Medi Know, an online learning platform for medicine founded by doctors, offers digital, practice-oriented learning materials, flashcards, and videos for medical students and professionals in training. The platform includes practical scripts, summaries, and flashcards on various medical topics – visually appealing and written by doctors, medical students, nurses, and paramedics. Complex content is conveyed in an understandable and hands-on way. Even before the launch of the learning platform, Medi Know offered scripts and flashcards in PDF format. All of these are now available on the learning platform. As the platform launched, Medi Know was expecting a higher number of registrations and users and, therefore, required a high-performance and scalable cloud solution.

Initial system couldn't handle the expected customer load

The system was built on a non-redundant server that hosted all core components, including the Postgres database, Redis cache, ElasticSearch backend, and application workloads, all within a Docker runtime environment. This tightly integrated architecture led to scalability issues and a high vulnerability to failures due to a "single point of failure."

Placing resource-heavy components like the Postgres database, ElasticSearch, Redis, and the application on the same server resulted in potential resource conflicts. Additionally, the system faced security risks, limited deployment flexibility, and complex troubleshooting, which affected both ongoing operations and recovery and maintenance processes.



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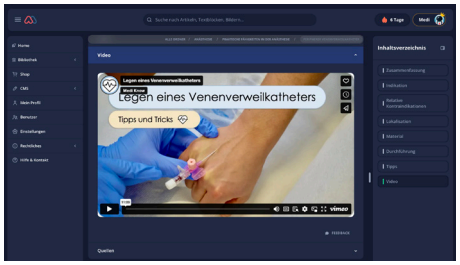
Migration to the AWS cloud

Modern production environments require distributed, scalable architectures with independent services and improved fault tolerance. As a Premier Tier Services Partner in the Amazon Partner Network (APN), tecRacer migrated the architecture to Amazon Web Services (AWS) cloud. Given the limited size of the Medi Know team, the migration was heavily reliant on AWS Managed Services: The PostgreSQL database was deployed using the Relational Database Service (RDS), the cache was replaced with an ElastiCache for Redis cluster, and the ElasticSearch backend was migrated to Amazon OpenSearch Service. At the core of the new AWS architecture is a serverless Elastic Container Service (ECS) cluster powered by the Fargate compute engine. This completely removes the previously used virtual server and the need to manage actual infrastructure resources.



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Flexibly scalable learning platform for a rapidly growing customer base

In line with the microservice approach, the previously tightly coupled software components were restructured into individual ECS services. This allowed for shorter development and deployment cycles. Errors can now be more easily isolated, and the platform is now ready for flexible scaling. Thanks to the achieved high availability, the digital learning platform is fully prepared to handle the steadily growing customer base. The originally estimated total budget for operating the platform was reduced by 50% despite the extensive improvements.

Contact at the customer:

Christopher Predel, Co-Founder and Co-Managing Director, Künzell:

"tecRacer has successfully migrated our learning platform to the cloud. The system is now more secure, less prone to errors, and scalable to accommodate our ongoing growth. And all of this comes at half the operating costs we initially anticipated."

tecRACER

Success Story

CUSTOMER: MEDI KNOW GMBH

Project goals

- Migration of the Digital Learning Platform to Amazon Web Services (AWS)
- Scalability
- Reduced susceptibility to outages
- Fewer resource conflicts
- Enhanced security and flexibility in deployment

Project Duration

April to May 2024

Services provided by tecRacer

- Migration of the Digital Learning Platform to Amazon Web Services (AWS)
- Setup of the PostgreSQL database using Relational Database Service (RDS)
- Replacement of the cache with an ElastiCache for Redis Cluster
- Migration of the Elasticsearch backend to Amazon OpenSearch Service
- Serverless Elastic Container Service (ECS) cluster based on the Fargate Compute Engine

About tecRacer

tecRacer, based in Hanover with eight other locations in Duisburg, Hamburg, Frankfurt, Munich, Berlin, Geneva, Zurich and Lisbon, offers AWS (Amazon Web Services) consulting, training, managed services, and project management from a single source - seamlessly integrated across the entire cloud lifecycle - from strategy to implementation and operation.

The strategy remains the clear focus on Amazon Web Services. tecRacer is an AWS Premier Tier Services, AWS Advanced Tier Training, AWS Managed Services and AWS Reselling Partner. With a strong focus on customer-centric solutions and long-term partnerships, tecRacer empowers organizations to achieve their goals on AWS.

Today, the company has more than 150 permanent employees, has trained more than 12,000 participants in AWS and has already successfully implemented hundreds of AWS consulting projects.

For more information, visit www.tecracer.com or contact us at sales@tecracer.com.

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