vmware IT ACADEMY

Partnership Between VMware IT Academy and Global Support Services Demonstrates a Force for Good

INSTITUTION

Cairo University

1 Gamaa Street, Giza

KEY CHALLENGES

- Six students in their last year of university wanted to declare an NFV solution as their graduation project.

- Compared with other technologies, NFV had limited resources and references.

- A graduation project based on NFV had never been done before.

- To be successful, they needed VMware sponsorship.

SOLUTION

The students reached out to IT Academy Program Manager Nevine El Kadi. Nevine then contacted Director of Global Support Philip Guindi to get guidance to help this enthusiastic group of students. Through this partnership, the students would experience a kind of "on-the-job training" from experienced engineers who they could learn from and look up to.

Who we are

Cairo University (CU) is Egypt's premier public university, located in Giza, across the Nile River from Cairo. CU is a comprehensive institution of higher learning committed to preparing students for the challenges of rapidly changing workplaces. Through interactive learning and information technologies, graduates enter the workforce with the skills needed to succeed in today's global marketplaces.

CU is also home to VMware IT Academy. **VMware IT Academy** is a global, public-private partnership with institutions around the world. VMware IT Academy helps students lead in the digital future by teaching the application of VMware® technology. This fosters career development, creates a pipeline of diverse talent and helps to lead a positive change around the world.

Where there's a will, there's a way

Approaching graduation, students Abdelrahman Ehab, Maurice Medhat, Khaled Shahine, Ahmed Reda, Mohamed El Qadi and Omar Waleed decided to do something big for their graduation project. They chose to create a solution for network function virtualization (NFV).

NFV is the decoupling of network functions from proprietary hardware appliances and running them as software in virtual machines (VMs). Currently, no one starts programming NFV from scratch.

Despite challenges—including never having been done before—they decided to start the project and worked hard to make it real. They started to study NFV and learned how to use it.

The team reached out to VMware for guidance. They believed that since VMware was a leader in NFV, they would be the best company to talk to. They contacted IT Academy Middle East and Africa Program Manager Nevine El Kadi and pitched their idea. She liked the idea and immediately started to help.

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THE STUDENT TEAM

Abdelrahman Ehab

Maurice Medhat

Khaled Shahine

Ahmed Reda

Mohamed El Qadi

Omar Waleed

LEARN MORE

Discover more about how VMware IT Academy students can align with the leader by visiting us at *www.vmware.com/ company/research/it-academy.html*.

Relationships rule

Nevine introduced the students to engineer Philip Guindi, director of Global Support Service at VMware. Philip, with his remarkable cooperative spirit, assigned two VMware engineers—Amr Koptan and Amr Essam—to work with the students. Nevine had regular calls with Philip, who updated her on the students' progress.

In January 2020, the students started meeting with both VMware engineers and visited the VMware office several times.

Everything was going fine, until COVID-19 struck.

Pandemic problems

Unfortunately, the pandemic didn't allow the students hands-on practice with a server. But they didn't give up. Everyone kept in touch remotely, trying to solve this problem.

In April 2020, the group got lucky. VMware connected the team with the University of Utah, which gave the students access to work on the university's cloud.

To the top of the class

In the cloud, they were able to build the network functions and deliver their project. The students' final output created a virtual bridge—monitoring firewalls with virtual network functions (VNFs).

At the end of July 2020, the team successfully finished their graduation project. Everyone on the team received an A+. Through perseverance and partnership, they successfully achieved their goal.

Special thanks

Dr. Nevine El Kadi (Hon. Causa)

Engineer Amr Koptan

Engineer Amr Essam

Kudos to Philip Guindi and his team of engineers for making the connection to University of Utah, and to the IT Academy for helping such an energetic and determined group of students experience a real-life working environment so they could succeed.

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