tomorrow's schedule and writes some personal reminders before starting off on her 30-minute commute home.

1. How effectively do you think Troi spent her day?
2. What does the case tell you about what it is like to be a project manager?
${ }^{1}$ Slack is a communications program designed to manage the flow of information on a project. See slack.com.

## Case 1.2

## The Hokies Lunch Group ${ }^{1}$

## PART A

Fatma settled down for lunch at the Yank Sing Chinese restaurant. She was early and took the time to catch up on her e-mail. Soon she would be joined by Jasper and Viktoria, two fellow 2014 grads from Virginia Tech in Blacksburg, Virginia.

Jasper worked as a software engineer for a start-up company that wanted to expand the boundaries of sharing economy. Viktoria was an electrical engineer who worked for a German healthcare company in San Francisco. They had met each other at a Silicon Valley alumni reception hosted by Virginia Tech. Each of them felt a bit like a fish out of water on the West Coast, so they decided to have lunch together each month. The lunch evolved into a professional support group. A major part of each of their jobs was managing projects, and they found it useful to share issues and seek advice from each other.

Fatma worked for a very successful Internet company whose founders believed that everyone in the firm should devote three days a year to community service projects. The company was partnering with several companies in the construction industry to renovate abandoned buildings for
low-income families. The next project was the renovation of an empty warehouse into eight two-bedroom apartments. Fatma was part of the core team in charge of scheduling and managing work assignments.

Viktoria and Jasper entered the restaurant together. Viktoria was the first to move to the Bay Area. She was currently working on the next-generation neural stimulator ("PAX 2"). Neural stimulators are electronic devices that doctors implant in patients with wires connected to sources of pain in the patient's spine. In the past, patients would have to have an operation to replace the stimulator battery every 10 years. PAX 2 was being designed to take advantage of new battery technologies and use a page 24 rechargeable battery. In concept, this battery system would eliminate the need for replacement surgeries and allow the implanted battery to be recharged externally. Viktoria's team had just completed the second prototype and was entering a critical testing phase. It had been tricky trying to predict the lifespan of the new rechargeable battery without testing it in real time. She was anxious to begin seeing the test results.

Jasper was working for a start-up company after doing contract work for his first nine months in San Francisco. He was sworn to secrecy about the project and all Fatma and Viktoria knew was that the project had something to do with sharing economy. He was working with a small development team that included colleagues from Bangalore, India, and Malmo, Sweden.

After ordering and chit-chatting a bit, Fatma started the discussion. "I will be glad when this week is over," she said. "We've been struggling defining the scope of the project. At first glance our project seems relatively simple, build eight two-bedroom apartments in an old warehouse. But there are a lot of unanswered questions. What kind of community space do we want to have? How efficient should the energy system be? What kind of furniture? Everybody wants to do a good job, but when does low-income housing morph into middle-income housing?"

Viktoria offered, "Scope defining is one of the things my company does very well. Before a project is authorized, a detailed scope statement is developed that clearly defines the project objectives, priorities, budget, requirements, limits, and exclusions. All of the key stakeholders sign off on it. It is really important to identify priorities up front. I know on the PAX 2 project that scope is the number one priority. I know that no matter how long it takes it is imperative that my work is done right."

Fatma responded, "That's exactly what my project manager is preparing for Friday's meeting. I guess that one of the things you have to do as a project manager is end discussions. He is going to make the tough calls and finalize the project scope so we can begin planning."

Jasper interjected, "You guys are so lucky; for the most part your scope remains the same. In my work the scope is constantly changing. You show the founders a feature they wanted, and they say, well, if you can do that, can you do this? You know it's going to happen, but you really can't plan for it."

Jasper went on, "We do know what our number one priority is: time. There are a lot of players trying to move in to the 'space' we are working on. We have to demonstrate we are ahead of the pack if we are going to continue to get VC funding." ${ }^{2}$

Jasper said that despite the pressure, his project had been a lot of fun. He especially liked working with his Swedish and Indian counterparts, Axel and Raja. They worked like a global tag team on their part of the project. Jasper would code and then pass his work on to Raja, who would work on it and pass it on to Axel, who would eventually hand it off to Jasper. Given the time zones, they were able to have at least one person working on the code around the clock.

Jasper said it was hard at first working with someone he hadn't met personally other than on a video screen. Trust was an issue. Everyone was trying to prove himself. Eventually a friendly competition arose across the team. The programmers exchanged funny cartoons and YouTube videos. He showed Fatma and Viktoria a YouTube video about scope creep that got a chuckle from everyone.

They made plans to meet next at the new Peruvian restaurant on SE 8th Street.

## PART B

The Peruvian cilantro/lime ceviche was a big hit at the next lunch. Viktoria began their discussion by reporting, "I have good and bad news. The bad news is that our first prototype failed its tests miserably. The good news is that I have a smart project manager. She knew this could happen, so she
mitigated the risk by having us working on two alternative battery technologies. The alternative technology is passing all of the tests. Instead of falling behind months, we are only days behind schedule."

This precipitated a discussion of risk management. Fatma reported that there had been a two-day session on risk management for the renovation project. They spent the first day brainstorming what could go wrong, and the second day coming up with strategies for dealing with risks. A big help was the risk report that was generated after the last project. The report detailed all of the problems that had occurred on the last renovation project as well as recommendations. Fatma said, "I couldn't believe how much time and attention was devoted to safety, but as my project manager said, 'all it takes is one bad accident to shut down a project for weeks, even months.'"

Jasper reported that on his project they spent very little time on risk management. His project was driven by a build-test mentality. "Everybody assumes that daily testing eliminates problems, but when it's time to integrate different features, that's when the real bugs will emerge," Jasper said.

Jasper went on to say that things were not going well at work. They had missed their second straight milestone, and everyone was feeling the pressure to show results. "I even slept by my cubicle three nights ago," Jasper confessed. Fatma asked, "How many hours are you working?" "I don't know, at least 70, maybe 80 hours," Jasper answered. He went on to say, "This is a high-stakes project, with a BIG upside if successful. I am doing some of my best programming and we'll just have to see what happens."

Jasper showed them a cartoon that was being circulated across his team. The caption read "When did you want it done? Yesterday."

Fatma turned to her friends and said, "I need some advice. As you know, I'm responsible for scheduling work assignments. Well, some of my colleagues have been pretty aggressive lobbying for choice assignments. Everyone wants to work alongside Bruno or Ryan. Suddenly I am everyone's friend, and certain people are going way out of their way to do favors for me. I am sure they think it will influence my decisions. It's getting awkward and I am not sure what to do."
"Quid pro quo," answered Jasper, "that's how the business world works. You scratch my back and I'll scratch yours. Within reason, I don't have a
problem with someone taking advantage of her position to garner favors and build relationships."

Viktoria said, "I disagree. You don't want to be seen as someone whose influence can be bought. You need to think what's best for the company. You need to ask yourself what Bruno and Ryan would want you to do. And if you don't know, ask them."

After much discussion, Fatma left the restaurant leaning toward Viktoria's advice, but she wasn't sure what the guidelines should be.

## PART C

It took two months for the Hokies lunch group to get together again. Jasper had canceled the last meeting because of work, so Viktoria and Fatma saw a movie together instead.

Jasper was the last person to arrive and it was clear from the look on his face that things were not going well. He sat down, avoiding eye contact, before blurting, "I'm out of work." "What do you mean?" Fatma and Viktoria cried. Jasper explained after months and months of work they had been unable to demonstrate a functional product.

Jasper went on to say, "Despite our best efforts we couldn't deliver. The founders couldn't get an ounce of second-round venture funding, so they decided to cut their losses and kill the project. I just spent the best six months of my programming life for nothing."

Fatma and Viktoria tried to comfort their friend. Fatma asked Jasper how the others were taking the news. Jasper said the Swedish programmer, Axel, took the news very hard. He went on to say, "I think he was burning a lot of bridges at home with the long work hours and now he has nothing to show for it. He started blaming us for mistakes we never made." Raja, his Indian counterpart, was a different story. "Raja seemed to shrug his shoulders." Jasper added, "He said, 'I know I am a good programmer. There are lots of opportunities here in Bangalore.'"

Fatma broke the silence that followed by saying to Jasper, "Send me your resume. My company is always looking for top-notch programmers and it is a really great company. Can you believe it, the two founders, Bruno and Ryan, are working side by side with everyone on renovating the
warehouse? In fact, people were amazed at how good Bruno was with sheet rock. A big part of my job now is scheduling their time so they can work with as many different people as possible. They really want to use the project to get to know their employees. This hasn't been easy. I have had to juggle their calendars, their abilities, and work opportunities."

Viktoria interjected, "You're using Microsoft Project to do this?" "Not really," responded Fatma. "At first I tried scheduling their work in Microsoft Project, but it was too cumbersome and time consuming. Now I just use the Project master schedule and each of their calendars to schedule their work. This seems to work best."

Viktoria added, "Yeah, Microsoft Project is a great program, but you can get lost trying to get it to do everything. Sometimes all you need is an Excel sheet and common sense."

Viktoria felt awkward, given what had happened to Jasper. She was just wrapping up the successful PAX 2 project. She was also getting ready for a well-deserved holiday in Vietnam paid for by her project bonus. "I hate closing out a project," Viktoria said. "It's so boring. Document, document, document! I keep kicking myself for not tracking things when they happened. I am spending most of my time scouring my computer for files. I can't wait to take off to Vietnam."

Viktoria went on to say, "The only thing I liked doing was the project retrospective."

Jasper asked, "What's a project retrospective?" Viktoria answered, "It's when the project team gets together and reviews what went well and what didn't and identifies lessons learned that we can apply to future projects. For example, one of the things we learned was that we needed to bring the manufacturing people on board a lot sooner in the design process. We focused on designing the very best product possible, regardless of cost. We found out later that there were ways for reducing production costs without compromising quality."

Fatma added, "We do that, too, at the end of our projects, but we call it an audit."

Fatma asked Viktoria, "Do you know what your next assignment will be?" "No," she replied, "I will probably go back to my department and do
some testing. I'm not worried. I did good work. I am sure someone will want me for their project."

Jasper chimed in, "I sure hope someone wants me for their next project." Fatma and Viktoria immediately went into action, trying to lift their friend's spirits.

A little while later, they walked out of the restaurant and gave each other hugs. Fatma reminded Jasper to send her his latest resume.

1. For each part $(\mathrm{A}, \mathrm{B}, \mathrm{C})$, what phase of the project life cycle is each project in? Explain.
2. What are two important things you learned about working on projects from the case? Why are they important?
${ }^{1}$ Hokies is the name associated with Virginia Tech athletic teams.
${ }^{2}$ New venture capital funding.

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[^0]
[^0]:    1 It should be noted that PMBOK also includes Incremental and Iterative as two additional approaches, which are beyond the scope of this text. Search pmi.org for further details.
    ${ }^{2}$ LEED certification was developed by Leadership in Energy and Environmental Design (LEED) and is one of the most popular green building certification programs used worldwide.

