

**CASE
STUDY**

THE VALUE OF CUSTOM TRAINING

How a Partnership is Transforming a
Financial Services Company



SOFTWARE-GUILD

WWW.THESOFTWAREGUILD.COM

Table of Contents

Executive Summary	2
Challenges	3
Solutions	5
Step 1: Align talent strategy with business strategy	6
Step 2: Design a custom learning stack	7
Step 3: Deliver a learn-by-doing classroom experience	9
Outcomes	12
Conclusion	14
About The Software Guild	15

Executive Summary

At a Fortune 500 company, software engineers needed Java training to develop advanced applications, but heavy workloads allowed little time for professional development. In addition, coding tools and techniques varied throughout the team, making it tough to deliver in-house training that would uniformly upskill each engineer.

To solve the problem, The Software Guild designed and delivered a staged Java training program. The Software Guild customized curriculum to the skills of individual team members and integrated training sessions into team job flows, avoiding disruption to performance.

The result: The Software Guild uniformly upskilled 17 software engineers, improving their Java coding abilities while boosting collaboration and productivity.

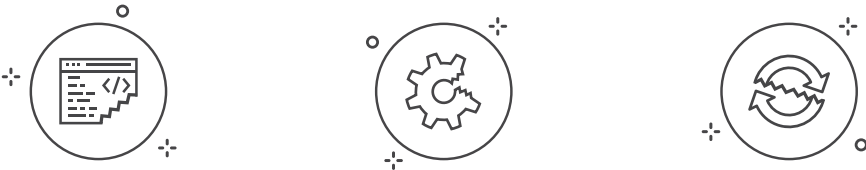
CHALLENGES

At a Minneapolis-based Fortune 500 financial services company, a satellite group of application engineers works separately from the main IT division. They develop applications in an agile environment, receiving projects from product owners instead of a central IT manager. While this approach fosters collaboration between engineers and product owners, it hinders best practices and uniform coding techniques throughout the group.

“We started to see some inconsistencies between our teams and the way they wrote code in Java and built user interfaces,” the IT manager said. “We’ve also seen some hesitation to use Java or HTML when they may have more familiarity with other technologies like Microsoft Access.”

The IT manager began exploring how to upskill the group. During this exercise, he identified three challenges that limited the group’s performance:

The IT manager began exploring how to upskill the group. During this exercise, he identified three challenges that limited the group’s performance:



- JAVA SKILLS WERE LACKING AND INCONSISTENT**
- CODING TOOLS WERE OUTDATED**
- HEAVY WORKLOADS LIMITED TRAINING TIME**

JAVA SKILLS WERE LACKING AND INCONSISTENT

The IT manager recognized that outdated, inconsistent coding techniques caused mounting technical debt for his group. The longer they postponed updating their skills, the greater their development inefficiencies would become. Meanwhile, the need for more innovative applications rapidly grew, further accelerating the obsolescence of skills. To overcome this challenge, the team needed uniform training to update Java coding and establish baseline code for the group.

In addition, the local job market did not include enough candidates who had advanced skills, so the company typically hired engineers who had junior to midlevel skills. To develop a workforce their business goals demanded, the company needed to upskill their existing talent.

CODING TOOLS WERE OUTDATED

To expand their coding capabilities, the group needed to adopt new technologies and set best practices for their implementation. The group used dated technologies, such as an internal Maven repository that didn't support open-source projects. This limited collaboration and productivity.

For the group to become more efficient and innovative, they needed guidance to identify system upgrades and structure rollouts that established best practices to maximize team effectiveness.

HEAVY WORKLOADS LIMITED TRAINING TIME

Like most technology teams, the IT group had heavy workloads with tight turnaround times for projects. They couldn't take a lengthy break for training, as it would lead to missed deadlines, delayed projects and unhappy customers.

Internal training seemed like a simple way to navigate weighty project demands, but no one in the group had experience crafting and presenting complex curriculum that would be understood and retained by engineers with varying coding proficiencies. "Standing in front of 15 of your peers and instructing a lesson is a very specific skill," the IT manager said — a skill the group lacked.

To solve their challenges, the company needed a training partner who specialized in Java and could upskill the team without impacting daily operations. And the IT manager knew where to find one.

SOLUTIONS

The IT manager learned about The Software Guild while scouting their graduates for engineering roles. “We’ve interviewed their students and hired one,” the IT manager said. “We’ve come close to making offers to other graduates, but you’ve got to be really fast with some of those grads because students at the top of their class are in high demand.”

The IT manager contacted The Software Guild to explore their training solutions. A partnership quickly formed, with both sides determined to solve the group’s challenges.

“I was amazed at how willing they were to listen to our needs and then customize a curriculum that would work for us,” the IT manager said.

“We approached every conversation to get to know the manager, build rapport and understand the projects this team was working on,” said Jeremy Walsh, senior vice president of Enterprise Learning Solutions at The Software Guild.

Of course, these were more than conversations. The Software Guild was capturing insights to align the company’s business strategy with their talent development strategy. This is the first step in The Software Guild’s proven approach to training.

*Take our approach for a **better workforce***

We’ve developed a proven training approach to align, design and deliver high-quality training for your business. Our three-step approach helps you identify, develop and retain the talent you need to complete.



“I WAS AMAZED AT HOW WILLING THEY WERE TO LISTEN TO OUR NEEDS AND THEN CUSTOMIZE A CURRICULUM THAT WOULD WORK FOR US.”

– IT MANAGER



Align talent strategy with business strategy

While working with the IT manager, The Software Guild uncovered key challenges to resolve via training. The top challenge was to improve the group’s Java competencies. Before they did, The Software Guild needed to identify each employee’s precise competencies.

“We conducted a comprehensive skills assessment that revealed they had some areas of need to develop and update their skills within advanced Java concepts,” Walsh said.

Based on the company’s interest in promoting career development, the skills assessment also collected data about employees’ career goals. This helped The Software Guild develop training that focused on employees’ interests and fostered better engagement when training began.

Data-focused talent development

Our skills assessment is like an MRI that spots skills gaps in your workforce. It is a quick, noninvasive tool that provides data insights we need to:

- MAKE TALENT DECISIONS BASED ON FACTS, NOT GUESSWORK**
This helps us design the specific training your workforce needs
- TAILOR TRAINING THAT’S PRODUCTIVE FOR EACH TRAINEE**
We raise the skills of the entire group and make sure no one falls behind
- BALANCE TECHNICAL SKILLS WITH PERSONALITY TRAITS**
We can identify behaviors that individuals need to succeed in a role



Design a custom learning stack

After mining insights from the group's skills assessment data, The Software Guild began designing a custom training program. They worked closely with the IT manager to ensure training provided skills that the company's business goals demanded.

For the IT manager, this collaborative approach paved the way for successful training. "I was appreciative that they didn't say, 'Here's what we offer. Take it or leave it,'" the IT manager said. "Instead they said, 'Here's what we can teach. Now, let's figure out how to optimize your employees' learning.' It felt like a partnership."



Upskill each engineer

Assessment data revealed coding competencies of engineers who The Software Guild would train. "Some were in the junior and midlevel, but our goal was to raise the bar for all of them to get to the next level," Walsh said.

This included standardizing coding techniques that engineers used to improve collaboration. "We wanted to get everybody singing on the same sheet and operating within DevOps best practices," Walsh said.

Based on engineers' varying skill levels, The Software Guild designed a staged approach to training. Training sessions would immerse employees in basic, enhanced and advanced Java concepts, allowing the group's skills to evolve in a uniform training experience. During basic sessions, the group's seasoned engineers could mentor junior developers, keeping everyone engaged as they progressed toward advanced training sessions.

Adopt productive coding tools

Skills assessment data and conversations with employees identified tools the group used. Some tools were outdated, bogging down productivity.

During training, The Software Guild would identify coding tools and systems to boost team efficiencies. Training would explore best practices for implementation of updated tools. Engineers would use the tools to solve challenges relevant to the company, demonstrating how they could help achieve desired business outcomes.

Integrate training into the group's job flow

Before meeting with The Software Guild, the IT manager was concerned training would interrupt project workflows. "We couldn't send everybody in our division to their three-month bootcamp," he said. After all, taking a lengthy break for training could lead to missed deadlines, delayed projects and unhappy customers.

Fortunately, The Software Guild specializes in more than bootcamps. They are also experts in custom training that seamlessly integrates into a company's daily operations.

"We didn't want to pull employees off the floor for too long, as that would impact their project work," Walsh said. "At the same time, training had to be robust enough for employees to learn concepts, apply them, and show that they know how to do it."

The Software Guild created a segmented training schedule of four sessions that would take place over several months. Each session would last four days and explore tasks relevant to the group's real-world projects, helping integrate training into engineers' workloads.

"There's a reason we spread out the immersive, hands-on experience for employees over the course of several months," Walsh said. "It was so they could apply it and get their hands dirty, come back and then revisit what they learned, and start looking to the next thing."

"WE DIDN'T WANT TO PULL EMPLOYEES OFF THE FLOOR FOR TOO LONG, AS THAT WOULD IMPACT THEIR PROJECT WORK. AT THE SAME TIME, TRAINING HAD TO BE ROBUST ENOUGH FOR EMPLOYEES TO LEARN CONCEPTS, APPLY THEM, AND SHOW THAT THEY KNOW HOW TO DO IT."

**— JEREMY WALSH, SENIOR VICE PRESIDENT OF
ENTERPRISE LEARNING SOLUTIONS AT THE SOFTWARE GUILD**



Deliver a learn-by-doing classroom experience

For each partner, The Software Guild develops training environments that foster success for the entire group of employees. To accommodate employees' heavy workloads, Corbin March, lead instructor at The Software Guild, configured the classroom for speedy, immersive training. He also made sure training materials and tools were ready for consumption before class began each day.



Development tools

In the first session, employees received hands-on experience with HTML, CSS and JavaScript. To boost productivity, March introduced employees to Visual Studio Code. On the job, most employees coded using Eclipse and Notepad++. These tools lack the efficiency-enabling features that Visual Studio Code provides.

To help the group adopt Visual Studio Code and other work-enhancing tools, March kept a running list — posted on the classroom wall — of technology enhancements. The IT manager referenced the list to acquire updated tools for the group to improve applications they developed. March said the IT manager's willingness to update tools and eliminate obstacles for the employees was encouraging.

Throughout the session, March and his team immersed employees in training and contextualized complex concepts with hands-on assignments. Employees collaborated to solve problems and write basic functions. By the fourth day, they could manually connect to a back-end data service via JavaScript.

March describes it as a light-bulb moment for employees. “They were like, ‘Hey, we could connect this to this data service that’s already running in our development environment,’” March said.

To March, this shows the power of hands-on training. “That was fun for people just to realize this technology wasn’t something they’re going to put on a shelf and have a little certificate — this was something they could use that day.”

✦
“THAT WAS FUN FOR PEOPLE JUST TO REALIZE THIS TECHNOLOGY WASN’T SOMETHING THEY’RE GOING TO PUT ON A SHELF AND HAVE A LITTLE CERTIFICATE — THIS WAS SOMETHING THEY COULD USE THAT DAY.”
✦

— CORBIN MARCH, LEAD INSTRUCTOR AT THE SOFTWARE GUILD

Object-oriented programming

The second session introduced object-oriented programming. The complex nature of this content often confuses junior developers. To nurture comprehension, March used skills assessment data to deliver training according to competencies throughout the group.

“They know SQL pretty well, but they’re using tools to visualize data,” March said. “They’re good programmers, but many had limited experience with Java and object-oriented programming.”

March optimized the pace of training to ensure each employee retained new concepts. He also balanced instruction and hands-on training to maximize what employees learned in the compressed training schedule. This fostered a rewarding training experience for employees of all skill levels.

Enhanced programming

In the third session, March delivered training that enhanced employees’ coding abilities and introduced Java-aid technologies. Like the second session, March balanced hands-on training and instruction, and set a steady, manageable pace that allowed all employees to keep up.

“This session really focused on structuring applications to have stable frameworks that can be expanded and consumed by many users,” he said.

Employees engaged with features in Java 8, including lambdas and streams, and explored how to use dependency injection in the Spring framework. This supported the group’s original mission to upgrade the tools and technologies they used.

“It seemed like everybody from junior to senior learned a lot,” March said.

Advanced programming

The Software Guild designed the fourth session to deliver web development, database integration and advanced Java concepts to employees. Before the session, March and the IT manager collaborated to develop large-scale projects that employees could explore. This gave employees ample time to run their projects in advance to verify they worked on many platforms.

“We presented Hibernate and Spring Boot, technologies that were relevant to the work students used on the job,” March said. “They were happy we were able to accommodate their training needs down to the technology level.”

The Software Guild customized training for the company's Maven repository, where software and data is stored to use as dependencies in other projects.

“The company had an internal version of Maven, and it did not quite work,” March said. This presented an opportunity for employees to further develop their problem-solving skills by troubleshooting the repository. It's essential for engineers to possess these skills, as they'll encounter issues when developing applications, he said.

In the end, they were able to get the system running by applying concepts they learned during training.

MIDSTREAM TRAINING ENHANCEMENTS

The Software Guild instructors average more than 10 years of industry experience. This provides the expertise to make on-the-fly improvements that maximize training outcomes. For example, during the first training session, many employees expressed interest in pair programming. Based on this feedback, The Software Guild revised curriculum for the second session to provide time to explore that concept.

This flexibility does more than expand what employees learn; it allows them to take ownership of their learning, strengthening engagement. This flexibility demonstrates how effectively The Software Guild instructors deliver training to employees, according to Erin Frazier, director of operations at The Software Guild.

“Our instructor was extremely flexible and ready to customize curriculum for the IT group,” Frazier said. “It helped that our partner was quite vocal and empowered his team to speak up and to help make training better.”


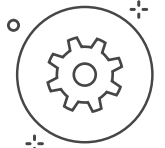

The company's IT manager agreed. “Our team thinks [The Software Guild] instructor Corbin March is incredibly knowledgeable and easy to learn from, so we've been blessed by that,” he said.

OUTCOMES

Developers say professional development and access to leading technologies are top priorities when they assess potential employers, according to a 2018 survey by Stack Overflow. This explains why the IT group's morale improved after they received training from The Software Guild — they recognized that their company values their contributions, which instilled loyalty to the company.

"I've gotten feedback from our employees who publicly say, 'I want to thank our management team for investing in us and being willing to help us do what we do better for the sake of our customers,'" the IT manager said.

In addition to boosting morale, the training program delivered outcomes that helped the company overcome their challenges:

- 
JAVA SKILLS WERE REFINED AND UNIFORM
- 
THE GROUP UPDATED THEIR CODING TOOLS
- 
INTEGRATED TRAINING FOSTERED CONTINUOUS IMPROVEMENT

“I’VE GOTTEN FEEDBACK FROM OUR EMPLOYEES WHO PUBLICLY SAY, ‘I WANT TO THANK OUR MANAGEMENT TEAM FOR INVESTING IN US AND BEING WILLING TO HELP US DO WHAT WE DO BETTER FOR THE SAKE OF OUR CUSTOMERS.’”

— IT MANAGER

JAVA SKILLS WERE REFINED AND UNIFORM

Each training session allowed engineers to learn a uniform set of skills, as well as collaborate on solving problems. As they developed skills, engineers began incorporating them into daily operations right away. For example, after working with lambdas during training, they were able to apply their experience to a related project.

"They went back and said, 'Hey, we just learned something new. We really want to incorporate this into the project. Can we have an extension?'" Frazier said. "They got an extension on their deadline, and they incorporated lambdas."

This successful application of Java concepts contributed to the team's continuous evolution of skills. As a result, the IT manager has witnessed greater collaboration between teammates.

"What I'm seeing are internal team conversations around our existing applications and what it would look like to make modifications or rewrite them," he said.

THE TEAM UPDATED THEIR CODING TOOLS

During each training session, March identified tools to improve productivity. He documented these enhancements for the IT manager to deliver updated tools to the group.

Examples include an updated repository that supports open-source projects, tools that provide effective mockup and testing practices, and the ability to create projects using Spring MVC.

Employees developed growth-focused mindsets by seeing how technology can improve productivity. This change in thinking can transform engineers into change agents who promote innovation throughout the organization.

"We were not only teaching them new things, but we were also creating an internal advocate for these new technologies," Frazier said.

INTEGRATED TRAINING FOSTERED CONTINUOUS IMPROVEMENT

By segmenting training over several months, the IT group avoided disrupting daily assignments. Even better, the phased approach empowered engineers to use skills gained in each training session upon returning to work.

This gave the group more confidence in their abilities, helping them take the initiative to identify new projects. For example, after the first session, engineers created a list of applications they could upgrade using newly acquired skills.

"Some of these applications have had a long life, and employees wanted to upgrade them into the 21st century," the IT manager said. "The team had conversations with their product owner and now they've prioritized those updates, which is exactly the kind of behavior we were hoping for."

These self-assigned projects helped engineers refine their skills, further preparing them for the next level of training. Once there, they acquired new skills, creating a loop of continuous improvement that could self-generate after training concluded.

Conclusion

By partnering with The Software Guild, the financial services company successfully upskilled their satellite IT group. This provided advanced competencies the group needed to build innovative applications that business goals demanded. According to the IT manager, these improvements demonstrate the value of upskilling.

“It was wise for us to sit down as a company, calculate the cost of training, and determine the return on that investment,” he said. “If you already measure things like support of software, core management, and cost of technical debt, then it doesn't take long to see there's a positive ROI on the cost of training. When you eliminate your technical debt, the return comes back pretty quickly.”

Identifying skills gaps is not unique to the financial services company. In fact, these staffing problems impact most businesses. But the financial services company is special because they took the initiative to find a training partner who could close those gaps.

The IT manager believes other companies will find success like his company experienced with The Software Guild. For companies that are hesitant to upskill their employees, he has a simple message.

“It's never too late to invest in your own employees if you believe they can bring value to customers, particularly in software,” he said. “Invest in and train employees in the areas that match the needs of your business partners.”

“IT'S NEVER TOO LATE TO INVEST IN YOUR OWN EMPLOYEES IF YOU BELIEVE THEY CAN BRING VALUE TO CUSTOMERS, PARTICULARLY IN SOFTWARE. INVEST IN AND TRAIN EMPLOYEES IN THE AREAS THAT MATCH THE NEEDS OF YOUR BUSINESS PARTNERS.”



– IT MANAGER



About The Software Guild

The Software Guild creates talented software developers through corporate training programs designed to enhance your workforce. Through immersive hands-on coding education, The Software Guild provides expertise in upskilling, reskilling, onboarding, and staffing. In partnership with companies who are active in workforce development, we help align corporate goals, design education solutions, and deliver student outcomes. The Software Guild has more than 450 companies in its employer network, boasts a stellar job placement rate for bootcamp graduates, and offers master instructors who average 10 years of industry experience. The Software Guild has on-ground locations in Louisville, KY and Minneapolis, MN. The Software Guild also offers courses in partnership with universities and companies across the country. The Software Guild is owned and operated by leading education technology solution provider The Learning House, Inc.