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NORTHWESTERN MEMORIAL HOSPITAL

Streamlines Development and Prototyping with Groovy and Grails

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Northwestern Memorial® Hospital

SPRINGSOURCE RESULTS

Groovy and Grails deliver the following business results to Northwestern Memorial:

- Increased Development Speed – 2 Month Cycle Reduced to One Week
- Rapid Prototyping – One Day Turnaround
- Greater Innovation
- Improved User Experience
- Fast Developer Ramp Up – One Week vs. Four Weeks
- Lower Cost Resources

TESTIMONIAL

"Within a week, I was able to build a prototype in Groovy and Grails that could talk to the backend system. If we tried to do that in Struts, it would take at least two months to get to that level, because Grails has so much boilerplate code already built in."

"In the end, I can improve the user experience for our website, because I am able to quickly and cost-effectively add new features using Groovy and Grails."

"A developer can learn Grails and be productive within a week, because it is so easy and intuitive, while Struts could take up to 4 weeks."

Northwestern Memorial Hospital

Northwestern Memorial Hospital has been recognized as the most preferred hospital in Chicago for 15 years. In 2009, 11 of Northwestern Memorial's medical specialties were ranked among the nation's best by U.S. News & World Report magazine with six specialties ranked the highest in Illinois. Northwestern Memorial encompasses nearly three million square-feet of hospital space, with more than 1,600 physicians and 854 licensed beds.

Application

As part of its wide ranging healthcare service offering, Northwestern Memorial Hospital offers hundreds of health-related classes, such as expectant parents, fitness and health education classes, to the residents of Chicago. Although the hospital's website provided an HTML page where people could view the classes, the page was not connected to the backend call center software that handled the actual class registrations and users could not sign up online. This meant that a member of the hospital staff would have to manually modify the page every week with updates to the classes and class attendees could only register by calling the hospital.

Northwestern Memorial's Internet Strategies group wanted to upgrade this part of the website by linking the online class registration directly with the backend software and give users the ability to register for classes online. This would save time and improve accuracy because all changes to classes and schedules would be automatically updated. In addition, users could register for classes anytime of day.

The hospital had been planning to do this upgrade for four years, but the project never got off the ground. Several vendors had been brought in to bid on the job, but the cost was always too high. Ariel Gamino was brought in as Technical Manager, Internet Strategies, and he suggested they build the application in-house.

Challenge

At the time, the hospital was using Java and Apache Struts for development, but this platform no longer met the hospital's needs in terms of speed, functionality and ease of use. Gamino looked for an alternative.

"In Struts we would have had to build the entire infrastructure," he says. "You need experience if you are working in Struts. It is complex and hard to learn, but we did not have Struts experts on staff."

Solution

Gamino decided to build the new online class registration application using open source technologies, and he chose Groovy and Grails. Groovy is a dynamic language for the Java Virtual Machine that offers a flexible Java-like syntax that developers can learn in a matter of hours. Grails is an advanced and innovative Web application framework based on Groovy, and built on proven open source technologies such as Spring.

"Now, any new components or migration to new functionality I do in Groovy and Grails," says Gamino. He uses Groovy and Grails for any web applications that require interactivity or data collection such as appointment requests, feedback forms, surveys, publication subscriptions, and search engine optimization. Both Groovy and Grails are backed by SpringSource, the leader in Java application infrastructure and management.

Benefits

GROOVY AND GRAILS DELIVER THE FOLLOWING BUSINESS RESULTS TO NORTHWESTERN MEMORIAL HOSPITAL:

Increased Development Speed

"Groovy and Grails enable me to develop applications really fast," says Gamino. "Productivity goes through the roof. Within a week, I was able to build a prototype in Groovy and Grails that could talk to the backend system. If we tried to do that in Struts, it would take at least two months to get to that level, because Grails has so much boilerplate code already built in."

"Groovy and Grails exceeded everyone's expectations," he continues. "We had not been able to make this project happen for four years, and now we can just plug into the backend system and it works."

Rapid Prototyping

The ability to prototype working applications quickly, and demo them for stakeholders, is one of the great advantages of Groovy and Grails, says Gamino. On several projects, he was able to turn a prototype around in one day.

Greater Innovation

The speed of development and the ability to turn around prototypes quickly fuel Gamino's ability to innovate new applications to solve problems. Because he does not have to invest too much time in a project, and can see functionality right away, he has more freedom and less risk in development.

Improved User Experience

"In the end, I can improve the user experience for our website, because I am able to quickly and cost-effectively add new features using Groovy and Grails," Gamino notes.

Because of the online class registration application Gamino built in Groovy and Grails, for example, users can now search classes by name rather than class ID, check how many seats are left for any class, and browse a list of similar classes they may be interested in.

Fast Developer Ramp Up

"A developer can learn Grails and be productive within a week, because it is so easy and intuitive, while Struts could take up to 4 weeks," Gamino confirms. "To work in Struts, you first have to be an expert in Java. It is more challenging to get up to speed in Struts."

Lower Cost Resources

Groovy and Grails save Northwestern Memorial Hospital money because if the hospital needs to employ a freelance Java developer, the expertise required to work in Grails is less than with Struts. Consequently, they do not need to hire more expensive Struts developers, and can bring freelancers onboard for lower cost.

About SpringSource

SpringSource, a division of VMware, Inc., (NYSE: VMW) and the leader in Java application infrastructure and management, provides a complete suite of software products that accelerate the entire build, run, manage enterprise Java application lifecycle. SpringSource employs the open source leaders who created and drive innovation for Spring, the de facto standard programming model for enterprise Java applications. SpringSource also employs the Java and Web thought leaders within the Apache Tomcat, Apache HTTP Server, Hyperic, Groovy and Grails open source communities. Nearly half of the Global 2000, including many world's leading retail, financial services, manufacturing, healthcare, technology and public sector clients are SpringSource customers. For more information visit: www.springsource.com.

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