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TECHNOLOGY PROFESSIONALS

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DRUG DISCOVERY AND HTS PROCESS AUTOMATION

Client Profile:

An emerging drug discovery company utilizing proprietary molecular interaction modeling and protein capture technologies.

Technologies Used:

Java, J2EE, Apache, JBuilder, Oracle

Project Summary:

Biotech client markets a proprietary process to model molecular interactions and capture proteins for drug discovery. The procedure is a time consuming manual process that involves many steps and several different chemical analyses. Individual phases of the process required scientists to program several robots and analytical instruments, each with different software packages. Both the development of the test methods and coordination of the instrumentation were very cumbersome. The client was seeking to automate the process, and create a High Throughput Screening application. ASHVINS was contracted to manage the requirements gathering and documentation, architect the automation application, and develop project schedules for the different phases of development. A team with members from ASHVINS and the client developed a web based scheduling application that coordinated all the robotic movements and extracted the data from the different analytical instruments. The data acquired is stored in a central database where it is statistically analyzed and collated for reactivity. Experiments are batched ahead of time and processed throughout the day. The application monitors and provides instant feedback as to the status of the experiment via a secure web portal interface. As a result, the client achieved a streamlined process and quadrupled their processing volume with fewer resources. Scientists are able to configure their experiments and monitor them remotely, even when off site.