

Engineering Services, Data + Analytics,
Cloud + Infrastructure

DIGITAL PREVENTATIVE MAINTENANCE & AGILE SOFTWARE DEVELOPMENT

Aditi partnered with a major energy company to create a new digital preventative maintenance system. The Agile software development program developed by the Aditi team enabled the company to evaluate and proactively repair and replace critical components in their reactor systems, thereby saving substantial costs by avoiding reactor downtime.

THE CHALLENGE

A leading nuclear power provider needed to create a new preventative maintenance initiative to scrutinize pipes and various other reactor components critical to the functioning of nuclear power plants – and proactively determine when best to repair or replace these critical components. The primary goal was to dramatically reduce reactor downtime so that they could avoid out-of-service costs valued at \$1 Million per minute million dollars per minute.

THE ADITI TEAM

This company partnered with Aditi to develop a software system to capture, track, and manage the different data streamss and to then apply sophisticated methods of data analysis to drive decision making.

To perform these tasks, Aditi provided a multi-faceted team consisting of:

- A system architect
- A back-end developer (C#/.Net)
- A front-end developer (React)
- QA testers
- An Agile team lead
- A UX designer
- A cloud engineer (Azure)
- A technical writer
- A business analyst

OUR SOLUTION

The Aditi team first engaged with various stakeholders to obtain detailed requirements, which then segued into building user stories, mapping out development trajectories, and orchestrating deployment plans.

The team then evaluated dummy data for the Minimum Viable Product (MVP) iteration with a plan to switch to authentic data as the project matured. A specialized team of data scientists then created algorithms to extract insights and predict potential points of failure. The team also created seamless integration of all processes within the Azure cloud for scalable infrastructure support and data storage.



TECHNOLOGY & METHODOLOGIES

To create a comprehensive solution, the Aditi team performed back-end development using C#/.Net, whereas the interactive front end was developed using React. Cloud operations were managed on the Azure platform, and Selenium was employed for rigorous testing. Azure DevOps was chosen for pipeline management and overseeing Agile practices.

OUTCOME

The Aditi team successfully delivered an innovative solution that allowed the energy company to drastically reduce downtime and thus save substantial costs. This solution fostered proactive maintenance practices that ensured reactor components were serviced or replaced before becoming a liability.



ADITI EMPOWERS YOUR DEVELOPMENT PROJECTS

Aditi partners with you through the entire life cycle of application development and modernization so that you can expedite time-to-deployment. Aditi builds teams quickly to perform business analysis, project management, UI/UX design, software development, QA/testing, and ongoing support.

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ADITI

CONSULTING

Aditi is a leading consultancy that connects talent, teams, and technology solutions to help our clients accelerate their digital journey. We create unique experiences that rely on borderless talent, technology, and customized solutions under your directions or ours. The firm's client list includes some of the most prominent global brands including more than 75 of the top Fortune 500 companies.

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