

```
integer euclidAlgorithm (int A, int B){  
    A=Math.abs(A);  
    B=Math.abs(B);  
    while (B!=0){  
        if (A>B) A=A-B;  
        else B=B-A;  
    }  
    return A;  
}
```

Transformed the QA Function, Increased Test Coverage by 90% and Cut Testing Costs by 27%

Client need

The client, a US-based distributor of natural and whole foods wanted to shorten its release cycles, and plug the leakage of defects in production. The client had non-standardized practices, templates and processes with no clear specifications and documentations. There was lack of accountability for the testing function, resulting in long delays in release cycles, test authoring and execution. The company suffered from high leakage of defects in production, up to 34%.

What we did

Innominds implemented an end-to-end QA transformation—setting up functional testing, performance testing, automation testing, upgradation and patch testing, mobile testing , performance testing, security testing, SIT and UAT. The transformation also involved both shifting left, shifting right and using Shift Deep techniques.

Starting off with integrating with the client's DevOps and QA teams, we gathered the application requirements and leveraged our diagnostic models and enterprise QE framework to conduct test assessments.

Subsequently, we established a standardized QE centre with clear processes, tools and methodologies, and responsibility criteria. We also standardized the non-function testing practices, and defined and standardized the QE metrics and SLAs aligned to the application criticality.

We leveraged our home-grown platform—iHarmony™—to automate tests across all platforms and used our process asset library to accelerate the QE transformation.

Innominds also introduced performance engineering and threat management services. We set up a performance testing CoE and successfully implemented the performance testing of Manhattan Supply chain systems like WMS, TMS, etc.

We helped the company achieve comprehensive coverage of E2E performance flows including Middleware systems like BizTalk and MuleSoft, core systems like Mainframes and developed a custom dashboard to monitor the performance counters of the different servers.

We also conducted mobile testing with our device lab.

Innominds enabled the CI/CD pipeline to speed up the release cycle time.

What the client gained



Test cost savings of **27%**



Reduced defect leakage into production to **3%** from 34%



Removed **P1** and **P2** defects



Achieved **90%** test coverage



Increased test repository from 500 to **22000** test cases

Tools

Selenium Web Driver with iHarmony™ accelerators

Jenkins, Appium, Jira, Manhattan, TMS-Freight management system, Macola—financial and planning application

About Innominds

Innominds is an AI-first platform-led digital transformation and full-cycle software product engineering services company headquartered in San Jose, CA. Innominds powers the digital next initiatives of global enterprises and software product companies with an integrated expertise in devices and embedded engineering, software apps and product engineering, cloud, analytics, DevOps, data, security and quality engineering.