



Case Study

Functional Test Outsourcing – Enterprise Property Management Application

Your company information

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Solution group	Testing Services Group
Solution offering	Functional Test Outsourcing
Project name or title	Enterprise Property Management Application

Case Study for Maintenance and Enhancement of Automation Framework using Selenium RC

Client Profile

Client is a community service organization that has been transforming the lives of Australians in need for more than 150 years. Client provides: accommodation and support programs for the homeless; creative services for homeless youth; counseling and support programs for families and accommodation and support for people with disabilities. 3,500 employees, volunteers, Board and supporters advocate for disadvantaged Australians and help them to get back on their feet. Working with Government, Corporate Australia, Churches and the wider community, the client is determined to overcome disadvantage across the nation.

Business Situation

Client had an existing legacy application which was outdated and did not provide complete functionality. Client developed a new application from scratch using some existing package and doing custom implementation based on their needs.

New application facilitates client to maintain the records of the property, work orders, payment related information, mail communications, rent reviews and generation of memos along with the wide range of the personal information of the tenants.

Since this was a completely new application and had big financial impact, it was important to completely test it for system and functionality. Client team engaged AdactIn as vendor to perform functional testing on their application.

Technical Situation

Below were some of the key business areas within the application which needed to be tested:

Tenancy Management: In this module, tenants with their personnel information like name, address and where they want the property could be created. Along with the personnel information, application had information about their earnings so that property manager can know who is going to pay the rent and how much. If tenant is unable to pay the full rent to the owner, then other sources like (wife's death, sports and many other allowances) are paying rest of the rent.

Property Management: In this module, property with its information like property address, type of property (unit, apartment, house, townhouse etc.), number of bedrooms, leased or hold, car park and many other attributes could be created. After creating the properties, user would be able to allocate those properties to the tenants. Every property got one Housing Manager so that he can manage work orders, invoices and many other related activities with that property.

Work Orders: In this module, work orders related to the properties could be created. When tenant issued complaints related to their properties, as a business process they were called work orders like tap leaking, change of carpet and many others.

Tenant Statement: This was the statement which was showing the tenant's payment history (rent and non rent). Through this statement, property manager was able to see how much he paid and how much he has to pay in the future.

Mail Merge: In this module letters like general cleaning, meetings, Christmas festivals and many others were generated for the tenants. If the letter was only for the single tenant, user used single mail merge and if the letter was for all the tenants, user used Bulk Mail Merge or the communication.

Dash Board: This module contained all the information of client properties, contacts and business processes. It had lots of table called portlet which contained all the list of tenants (Occupied or Vacated), Properties (occupied, vacated or acquired), List of Void Properties (Those properties which are going for the maintenance, and they can not be allocated to tenants until the work is completed) Payments arrangements, Pending Letters, Rent Review Letters, work order details and Rent Arrear Summary Report.

Solution

Adactin proposed and implemented gradual update process which was divided into 5 Phases.

Phase 1 - Knowledge transfer and requirement analysis

- Adactin testing team lead by Team Lead and 3 Test Analysts spent time with Business Analysts to understand end to end business processes and business need for the application.
- Testing team performed static testing and did gap analysis to understand existing functionality of current application, and how business team currently uses the system.
- Test Team understood data dependencies and integrations available between different modules

Phase 2 - Test Planning and high level Test Case Design

- Assistance in setting up the testing environment.
- Design of Test Plan with schedules, test approach and key areas to test.
- Business process allocated within the team to design high level test cases.
- Test team followed propriety RAT (Rapid Application Testing) approach trying to give massive benefits to project by testing and find bugs at rapid pace.

Phase 3 - Test Execution – Cycle-1, Cycle-2 and Cycle-3

- Test Execution was divided into 3 cycles
- Cycle-1 involved Functional and Integration testing
- Cycle-2 involved Integration and System testing
- Cycle-3 was regression testing cycle
- Build and defect management process was designed and communicated to development team
- Team used Jira for defect management
- Frequent meetings were done with business team to understand correct system behavior based on bugs logged.

- Regular Project review meetings were done to discuss testing progress and resolve issues encountered.
- Weekly testing progress reports were shared with client project management team.
- Creation of final System Test Summary Report.

Phase 4 - Facilitate User Acceptation Testing

- Assistance in setting up the UAT Environment.
- Design on UAT Test Scenarios for business users and get them reviewed.
- Training of UAT business team for application features.
- Support of business team during test execution and isolate any possible bugs.
- Reporting of UAT issues in Jira and managing their fixes with development team.
- Creation of final UAT Test Summary Report.

Phase 5 - Business User Training and Production Support

- Training to complete business users team on application functionality.
- Production Support and assist business team on any issues found in production environment on an on-going basis.

Benefits

Find below benefits of technical solution proposed to the client:

- Team logged more than 200 issues as part of testing phases leading to improving the quality of the application.
- All key business processes were thoroughly tested within the limited timeframe making sure they work correctly. No Production issues recorded for those areas.
- Suggestions to improve the flow of business process were made with the business team, to create a better functional application. For e.g. client had smooth control over payments and over-due invoices.
- Suggestions to improve the UI and Usability of application were made assisting in hand-over to business team quickly. For e.g. client business team could navigate and manage invoice, memos and communications easily.
- UAT Facilitation process established with business team helped in under covering some key business process gaps.
- Training to complete business users team, made sure that all users are familiar and comfortable with the application before production release.
- Effective bug tracking process ensured that open bugs could be easily tracked and fixed.

Products and services we used

- OS- Windows2007
- Database –SQL Server 2000
- Bug Tracking tool – Jira
- Development Technology – Dot.Net

Assistance provided by client resources

- Assistance provided by client's business team in understanding business requirements.
- Client's IT team helped in setting up Testing Environment.
- Client's Development team assisted in bug fixing.
- Client's Project Management and Test Management teams assisted in test coordination with business users and development team.

For More Information

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