

## CASE STUDY ON REAL ESTATE TESTING

### ABOUT BUGRAPTORS

BugRaptors a CMMi level5 company is preeminent independent software testing organization, led by committed, young, and dynamic professionals with extensive expertise and experience of independent testing and QA consulting services. We maintain a distinguished level of testing services which blends top quality with cost effective solutions. The proficiency we have gained in software testing and QA services over the years by implementing latest tools and technologies ensures that client's product is launched with highest degree of quality.

### ABOUT CLIENT

The client was a forward thinking entity who envisioned a website that would serve as a real estate marketplace. Client had a clear idea as to who his target audience was and how he wanted to serve this segment. Knowing how stressful it can be to find the right apartment that meets your needs, he wanted an end-to-end online real estate solution that would connect the Tenant and owner. Acting as a comprehensive database, the client aimed to make the buying or renting of apartment/properties an easy and fun thing.

### PRODUCT INFORMATION

It was a Property Management ERP to cater automation needs of Real Estate. It was a product based on a SaaS model and was for other Property Management companies and individuals to manage their Residential and Commercial Properties. It includes Rent/Sell/Manage Properties along with their transactions, accounting information, general and financial Reports and payments. There was separate portal for various user types.



### REQUIREMENTS/CHALLENGES

As client already had existing multiple desktop applications, which were working independent of each other however he wanted a centralized system which solve the purpose of independent system. Then he got created a new SaaS based web application that was available for other Property

Management companies and individual owner tenants and vendors too and he approached the BugRaptors as a third party testing vendor to test the ERP.

Following were the highlights of the challenges that we faced:

- **To ensure all the existing functionalities and features are covered in the new system-** As application was upgraded so the new system had to be verified and compared; in terms of functionalities and features in current system and previous system.
- **Time Constraints-** Because it was a real estate application and having very vast scope, so to test each functionality & features every time manually and ensuring these are working correctly was very costly and time consuming, so it was another hurdle on the way to accomplish the goal.
- **Real time Reports** – Reporting was the main USP of the application and had lakhs of records. Testing lakhs of records in a set time frame became a tedious task. Moreover all reports were based on real time and to check each instance of change in the system via reporting became a challenge in and of itself.
- **To verify that all data of existing application is migrated correctly-** As the system was up and running and live users were using the app so keeping the data intact and ensure the data is at par with the live application was another challenge for BugRaptors. As time to time data was migrated from old system to new system data needed to be evaluated and analyzed under the new environment.
- **To verify the accounting terms-** Accounting domain is not a Child's play. However accounting and budgeting are integral parts of customized ERP solution. So to ensure that the envisioned application meets all industry standards was the another challenge for BugRaptors.
- **To ensure performance in the new system is faster as compare to the old one-** As we have already mentioned that client has certain desktop application so the end users were customize with fast response time. Thus to ensure performance of new web application was not less than but better than the existing one.

## HOW BUGRAPTORS HELPED



**Requirement traceability matrix-** As the scope of application was vast, BugRaptors used RTM to cover-up the entire features and functionalities. Requirement traceability matrix was prepared which helped us for

test case coverage. All the enhancements and changes were updated in test cases and RTM. This helped us in tracking that all the functionalities had been covered while testing.

**Automation-** After much analysis and hard work, we delivered a solution that fit to a T. As it was a SaaS based application and having vast modules we could foresee that regression testing would eat away our time, so the strategy finalized by Bugraptors was first to ensure full test coverage and secondly, developing comprehensive automated regression test suites to increased reusability and maintainability. Various application portals and features were tested with the help of automated scripts written in Selenium Web driver.

**Database Testing-** As a SaaS based product, the data handling had become a challenge as the product had lakhs of records. Thus guaranteeing the reporting area showing all precise information was a difficult task and was practically difficult to manually test that records. To tackle the challenge Database Testing came into the picture. All the reports, calculations and transactions were tested with different set of queries.

In the existing application of client there was huge amount of data but as now it was an advanced version of the existing application so all that data was migrated in the new framework, after that all existing as well as new data was compared in data base testing.



**Accounting-** As accounting plays a very important role and integral part in real estate business we had to thoroughly test the integration of accounting fundamentals in our product. To cater the real estate requirements one of our accounting expert guided test engineers throughout the application. EFT process was tested with real time scenarios for multiple countries. Budgeting and other financial ins and outs were verified with the help of financial reports.

**Load Testing-** As it was a SaaS based real estate application therefore targeted audience includes company admins, tenants, owners, Vendors etc. So application performance was the big concern, also we had to compare the client's previous applications performance with the new centralized application. Therefore Bugraptors load tested the application and we closely work with client to understand his user base so that his input was frame to appropriate input. Based on our load test results development team did various round of performance tuning. As a result, we could assure the client with best expected performance.



## BENEFITS TO CLIENT

- **Accurate transactions result:** By using standardized accounting methodology the product delivered to the client was highly accurate in terms of financial calculations and transactions
- **Reduced response time:** By using our results and feedbacks from load testing setup, development team fine-tuned their code which was causing performance issues. As a result application performance increased and presently client is very satisfied with the product's response time.
- Being ERP testing experts the suggestions and feedbacks given by Bugraptors were gracefully accepted which in turn resulted in client's benefit.



## END RESULT

Client was quite impressed with the quality of the product. Website was user friendly with a professional and modern design to the client's taste. And the project was a good learning experience for Bugraptors.