

Acutest – Data Solutions Testing Service

Acutest is a specialist IT consultancy concentrating solely on the Quality Assurance (QA) and testing of IT platforms, software, business process. The company offers comprehensive testing services, ranging from straightforward test analysis to complete QA and test transformation, utilising its proven Principles based approach to testing.

Regardless of the type of testing being undertaken this Principles-based approach is adopted for all tasks, resulting in significantly better practices and outcomes than traditional testing methods.

Acutest's Data Solutions testing service addresses every aspect of testing for Big Data, data-rich, and data-centric solutions.

Acutest's experience in testing data-centric solutions enables us to understand the complexities involved and quickly identify key priorities and potential issues, which increases confidence and reduces the time needed to launch data-rich projects.

Service Definition Details

Testing solutions that handle large or complex datasets demands special attention to multiple factors because of the scale and intricacy of the data. Acutest's Data Solutions Testing services address all relevant components of testing data-centric solutions, including:

- **Data Ingestion testing**
 - Validate the process of ingesting data from various sources into the system.
 - Ensure data integrity during the ingestion process.
 - Test error handling and data validation mechanisms for handling invalid or malformed data.
- **Data Processing testing**
 - Validate the correctness and completeness of data processing algorithms and transformations.
 - Test the scalability and performance of data processing pipelines under varying data volumes and complexity.
 - Verify the accuracy of aggregations, joins, and calculations performed on large datasets.
- **Data Storage testing**
 - Test the integrity, reliability, and scalability of data storage solutions, such as databases, data lakes, or distributed file systems.
 - Validate data partitioning, indexing, and compression techniques for optimizing storage and retrieval performance.
 - Verify data replication and backup mechanisms for ensuring data durability and availability.
- **Data Quality testing**
 - Assess the quality and consistency of data stored in the system.
 - Validate data cleansing, deduplication, and normalization processes.
 - Test data profiling and quality metrics to identify anomalies, outliers, and data quality issues.
- **Data Security and Privacy Testing**
 - Verify access controls, encryption, and authentication mechanisms to ensure data security and privacy.
 - Test compliance with regulatory requirements, such as GDPR, HIPAA, or PCI DSS, for handling sensitive data.

- Assess the effectiveness of data masking and anonymization techniques for protecting confidential information.
- **Data Integration Testing**
 - Validate data integration workflows and ETL processes for moving data between different systems and platforms.
 - Test data synchronization and consistency across integrated data sources.
 - Verify interoperability with external systems and APIs for data exchange and integration.
- **Metadata Management and Lineage Testing**
 - Validate the accuracy and completeness of metadata stored in the system, including data schemas, data dictionaries, and lineage information.
 - Test metadata discovery and exploration capabilities for understanding data lineage, dependencies, and relationships.
- **Performance and Scalability Testing**
 - Test the performance of data processing, storage, and retrieval operations under various load conditions.
 - Assess the scalability of the system to handle increasing data volumes, concurrent users, or processing demands.
 - Identify performance bottlenecks, such as CPU, memory, or network constraints, and optimize system configurations accordingly.

Top Features

- The Acutest Accelerator – a tried and tested repository of collateral ready for fast deployment.
- Acutest Automation Framework accelerator – Developed through client experience, we have developed a set of enhancements specifically from work on data rich solutions which would facilitate our engagement, and quick start our ability to automate the testing.
- Principles and Practices based approach, where the principles are used to support the selection and implementation of the optimum Practices.
- Our 3 key Principles are:
 - Begin with the big risks - focus on what matters most.
 - Fail Fast - find defects as soon as possible after they are introduced.
 - See through the users' eyes - going beyond the formal specification to identify all things that really matter to the user.
- Whenever feasible, we provide a public domain version of our tools at the conclusion of the assignment so that our customer can continue building on what we've begun.
- We have already delivered this service to numerous organisations of varying size.

Business Benefits

- Reduced cost of testing.
- Increased speed of change through our proven principle-based testing approach.
- Improved governance of change through better business alignment of the testing and management reporting.
- Go live faster with confidence.

- This approach prioritises what is most important, helping project teams work efficiently regardless of the methods or technologies they use.

Onboarding and offboarding support you provide

Our ability to facilitate knowledge transfer, on-boarding and off boarding is of vital importance to us in delivering efficiencies across client projects.

Acutest possesses extensive experience in deploying and managing resources at various levels and scales, spanning multiple programmes and projects. Leveraging this expertise, along with our comprehensive onboarding and knowledge transfer processes, we efficiently deliver the appropriate resources to our clients in a timely and effective manner.

Through our approach to testing, coupled with our proven industry experience and high quality of resource, we can:

- Reduce project overall time and cost through the adoption of our Practices and Principles.
- Offer clients strategic value through collaboration with an experienced, reputable supplier known for its flexibility and ease of doing business.
- Provide a wide range of services and resources that can handle, organise, and deliver complex, results-driven solutions.
- Help develop new ways of working based on best practice and industry standards.
- Shared expertise / innovation from working with similar clients / organisations over the past decades.

Pricing overview, including volume discounts or data extraction costs

Pricing discounts may be available depending on the size and scope of the engagement / projects.

Prices exclude:

- Expenses (Travel and Subsistence)

Service constraints

This service does not have any constraints however, this is subject to buyers/clients' requirements, environment, and technologies.

Service levels like performance, availability, and support hours

Our support hours 9 to 5 (UK time), Monday to Friday.

Clients have 9 to 5 access by email and telephone.

How will we repay buyers if we don't meet service levels?

Please refer to our Terms and Conditions.

Ordering and invoicing process

Please refer to our Terms and Conditions.

How can buyers or suppliers terminate a contract?

Please refer to our Terms and Conditions.

Why Trustmarque/Acutest?

- A specialist provider of testing, assurance, and governance services, concentrating on testing IT processes and technology centred change.
- Our approach focuses on areas that matter most - enabling project teams to move quickly irrespective of methodology and technology.
- Strong and consistent track record of growth.
- Over 90% of our business comes from existing clients and referrals which is genuine confirmation that the approach enables our clients to derive real value from testing.
- Major cost savings by adopting the Acutest Accelerator Framework, a framework that contains all the tools, techniques, and processes to test projects.
- Acutest has a skilled and flexible resource pool with global coverage.
- Our clients go live faster with confidence.
- We have a deep understanding of the market dynamics, the competitiveness, cost challenges as well as customer service needs that our clients face.
- We are a catalyst to programme success.
- A strong organisation and culture.
- We combine our expertise with technology to make processes smarter, organisations more efficient and customer experiences better.
- Highly diversified across private and public sectors.