



You have the vision and we have the full-cycle custom software development expertise

We can help you design, develop, deploy, and manage next generation software products for the web that match your unique requirements and drive the value of your business.

OUR SOFTWARE DEVELOPMENT PRINCIPLES ARE

QA from the very beginning

Long term maintainability

Robust and modern technology stack

QA FROM THE VERY BEGINNING

▶ Professional support from day 1

We start Quality Assurance activity in the specification writing phase by reviewing and giving feedback to the editor of the functional specification. Our Senior developers and Architect provide their input in terms of planning.

Alternately, we can jump in at an even earlier stage with experienced Business Analysts who can help define your ideas in the form of a software solution.

We are always there for you. **We can help you avoid expensive dead ends.**

▶ Real time feedback

We follow the Agile approach, typically in two-week sprints, which enables the formulation and achievement of efficient sprint goals, as well as adds flexibility to change management. We support rapid testing of the current version with continuous integration methods.

As a result, **you are able to try out the system in its current state from the very beginning** of the development.

▶ Full transparency

Cloud based task management and the reporting tool (JIRA) provide a full picture of the task hours managed in the current development cycle and joint editing of the Backlog. The test cases and the results of their runs are also transparent to customers (TestLink).

You can work with us as **if we were part of your own team.**

▶ Future-friendly

Our experienced test engineers automate the test run (Selenium) for the test case of stable functions, ensuring the rapid release of subsequent software versions coupled with stable quality.

You can implement new functions while maintaining the stable operation of previous functionality.

Several members of the QA team are **Certified tester.**

LONG TERM MAINTAINABILITY

Vendor interoperability - You can easily have other vendors continue what we have started. We deliberately use industry standard solutions to help you keep your options open.

▶ Relevant expertise

We are experts at preparing upgradeable software. The key to facilitating the integration of future changes is that we pay careful attention to software architecture and quality from the very outset of the project.

This allows you to **easily and sustainably add new features** to the software as you go.

▶ Flexibility

Our experienced architects plan the system in a modular fashion and, using a code review mechanism, keep the functionality in the appropriate software layers (generally following the MVC model). In the event that restructuring becomes necessary, we achieve it through refactoring.

This way, **you only need to make changes to the relevant “blocks” of the software**, and can even add new ones.

▶ Code quality

Code analysis is automatically run both on the front and backend. The result is then used to improve code quality in daily development. We keep Unit test coverage of common component codes at 100%.

Our developers hone their skills on a continuous basis, supported through in-house workshops, our own professional Meetups, and even as regular conference speakers.

Getting code quality right from the very beginning **means quicker, easier changes in the future and lower overall costs** for you.

ROBUST AND MODERN TECHNOLOGY STACK

▶ Extensive experience

We are Java Enterprise Edition experts with experience deploying Java based projects since 2002. With over **80 years of combined experience in Java** development, our development and architecture team of nearly twenty-five experts is available to serve your IT and business needs.

We know what we are good at and we also aware of the areas where we have less experience. It is for the latter that we involve reliable partners, meaning that you only have to deal with one partner directly to get the complete solution you need.

▶ Up-to-date technologies

Keeping track of the most recent trends and technologies is one of the cornerstones that enables our team to deliver products of various levels of complexity.

Ahead-of-the-curve solutions of **Java technologies extends the useful life cycle of your software**, giving you the most protection against future changes.

▶ Comprehensive service

Precognox offers full-cycle Java development services. We build reliable, scalable and secure applications that meet the most sophisticated business requirements so that **you can sit back and relax**.

WHAT WE CAN DO FOR YOU?



Analysis and Consulting

- Project analysis and requirements management
- Business process modeling
- Data modeling
- Solution architecture design
- Security consulting and audit



Application Development

- Custom application and product development
- Software solution optimization, reengineering and performance tuning
- Migration from legacy technologies to Java
- Data mining & business intelligence
- Enterprise content management
- Internationalization and localization



Architecture design and scaling

- Needs assessment based on the distribution of daily data and visitor traffic
- Selection of cost-effective platform and architecture elements (cloud vs. dedicated servers)
- We build components that easily enable the movement and scaling of applications.
- Continuous delivery approach to prevent releasing stress
- Infrastructure automation
- Structured logging
- Monitoring of production software and architecture tuning



Search solutions

- Index-building, implementing complex relevance functions and quick text-search
- Multilingual indexing
- Domain specific thesaurus building
- Autocomplete (query suggestion)
- Document clustering
- Post-filtering solutions - multiple facets (clusters)
- Search interface building
- Search scaling (sharding, clustering, replication for high availability)



Structured database building from unstructured data (ETL)

- Focused crawling (cyclic walkthrough of thematic web sources)
- Text parsing, data retrieval and transformation
- Structured storing in database (relational or HBase)
- NoSQL data storing



Text and Data mining

- Keyword extraction from unstructured text (in English, German and Hungarian)
- Complex use of linguistic tools and language processing frameworks (UIMA, GATE , OpenNLP, Stanford NLP tools, tools of Morphologic)
- Linked data, SKOS thesaurus building
- Predictive analytics
- Parallel and distributed text processing
- Text classification and clustering
- Tagging texts with relevant key-phrases and keywords
- Extractive text summarization
- Sentiment and emotion analysis



Professional Java application development

- 10-12 years experience at several team members
- J2EE development: Java EE7, EJB3
- Building and deployment (Gradle, Docker)
- Microservice based application structuring
- Stress testing and Java profiling, optimisation



Mobile development

- Application development for Android platform



Web development

- Web service, Restful API creation and documentation with Swagger
- Client side MVC based on AngularJS
- TypeScript supported client side code quality
- Java EE - JSF based, web application building according to MVC model



Hosting, scaling

- Any J2EE application server or Servlet engine
- Apache httpd, NGinx, HAProxy load balancing
- Docker containers, orchestration, service discovery
- Multi-level cache solutions (Squid)
- MySQL performance tuning
- Cloud scaling
- Map/Reduce processing (Hadoop, Cloudera). We have a Cloudera Certified Developer for Hadoop



Security

- CAS, SSO (Single Sign On)
- Authentication through social media sites
- HTTPS/SSL
- X.509
- Encryption



Testing

- Manual testing
- Consumer-driven contract testing for Rest API
- Automated integration testing through GUI
- API integration testing

CONTACT US



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