

**QUARTZ**



# Quartz DevKit



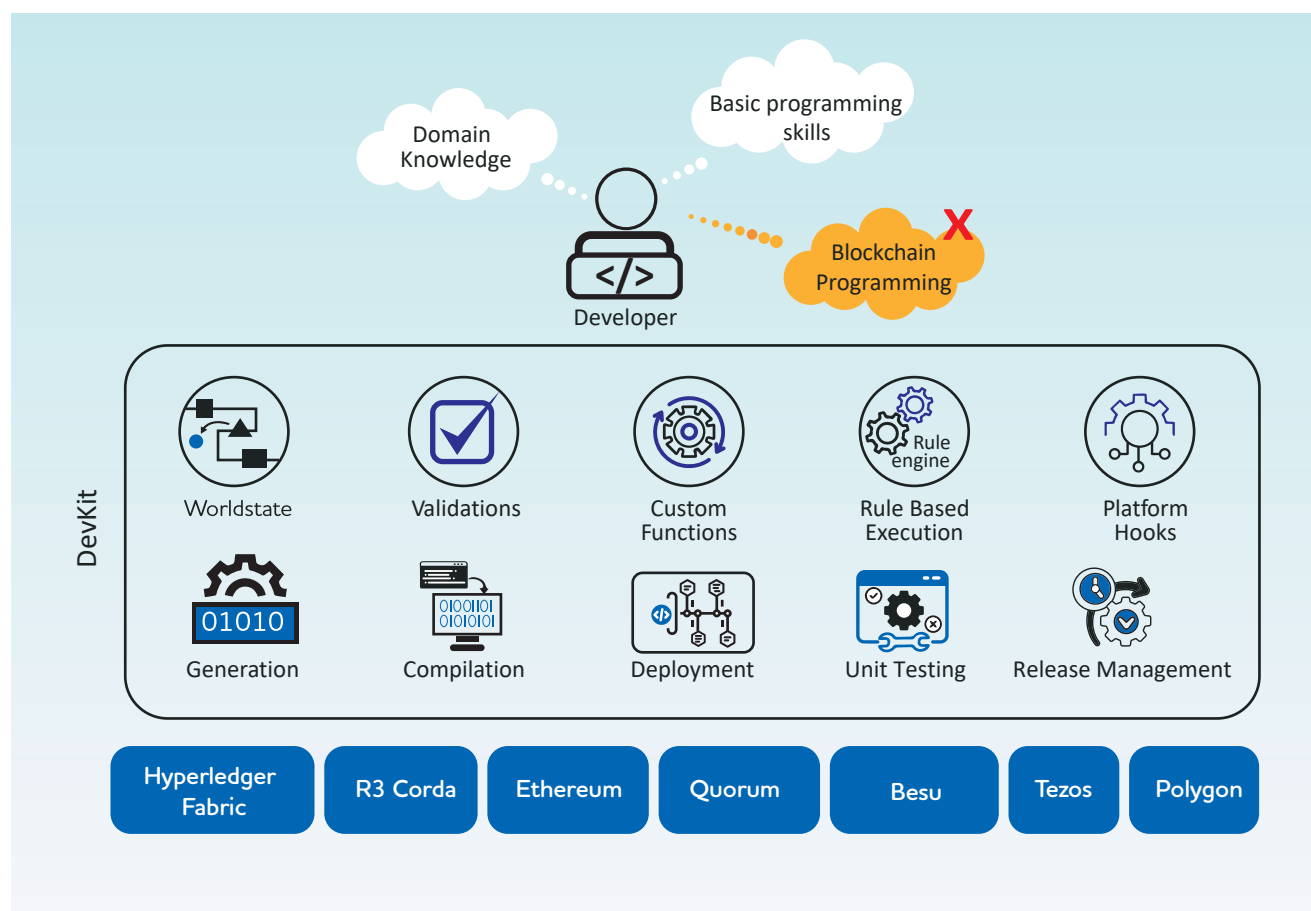
## Challenge

The global economy is set to increasingly draw on the power of business ecosystems. However, with continuously evolving technologies such as Blockchain, the industry faces skill set challenges globally. Developers of blockchain applications need to be aware of the data structure for the ledger, the validations involved, the functions to be implemented, in addition to having programming expertise on the specific language (GoLang/Kotlin/Solidity etc.). A shortage of these skill sets leads to issues of scale and can become a limiting factor for organizations that are looking to implement blockchain technology in their business landscape.

## Solution

To address this challenge, we have invested in creating Quartz DevKit, a blockchain developer studio, which provides an Integrated Environment to develop smart contracts and deploy them onto the target blockchain platform. Developers with limited or no blockchain platform know-how is empowered to code smart contracts using a Java based approach. The toolkit manages code generation, unit testing, security scanning and deployment of the code based on the protocols of the underlying platform. The comprehensive code library, built with TCS' extensive experience across domains, enables rapid development using pre-built components that handle a wide range of business requirements across industry domains.

The DevKit also comprises a standard set of architectural features covering security, data privacy, access controls, user management, audit trails and logging framework. These are together represented as Quartz Foundation Components. With its pre-built components for code quality analysis, compliance checks, vulnerability assessment, platform and version controls, DevKit enables automatic code generation which roughly translates to more than 60% of the overall smart contract code.





## Benefits

- Faster turnaround time from development to deployment - in a matter of weeks, and not months
- Quickly prototype, build, test, and deploy blockchain solutions
- Rapid deployment of high quality blockchain apps, improved productivity and business scale
- Automated release management for integrated packaging of blockchain solutions covering GUI, off-chain and on-chain components along with release documentation

## Quartz Advantage

- Multi-platform support (enterprise and public blockchains)
- Predictable, robust and high-quality code with built-in software quality assurance
- Agile development methodology and metadata-driven standardized development practices

## About Quartz

Quartz provides foundational technology, tools and business components that harness the power of next-gen technologies including DLT, AI/ML (including GenAI) for organizations across varied industries, including Financial Services, Banking, Supply Chain, Energy & Utilities and eGovernance. Backed by awards from Juniper Research (Gold Winner for Digital Identity Innovation 2024), the Asian Banker (Best Fraud Prevention Technology Implementation 2023), Financial Technology Forum (Best New Post Trade Solution of the Year 2022), Asset Servicing Times (Outstanding Innovation Award 2022) and recognition from Analysts (ranked #1 Best Performing Fraud Management Solution by IBS Intelligence 2022) Quartz can help organizations operate at the forefront of technology innovation.

To know more about Quartz, please write to us at [tcs.quartz@tcs.com](mailto:tcs.quartz@tcs.com), or visit our website <https://www.tcs.com/what-we-do/products-platforms/quartz>

## About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services (TCS) (BSE: 532540, NSE: TCS) is a digital transformation and technology partner of choice for industry-leading organizations worldwide. Since its inception in 1968, TCS has upheld the highest standards of innovation, engineering excellence and customer service.

Rooted in the heritage of the Tata Group, TCS is focused on creating long term value for its clients, its investors, its employees, and the community at large. With a highly skilled workforce of over 607,000 consultants in 55 countries and 180 service delivery centres across the world, the company has been recognized as a top employer in six continents. With the ability to rapidly apply and scale new technologies, the company has built long term partnerships with its clients – helping them emerge as perpetually adaptive enterprises. Many of these relationships have endured into decades and navigated every technology cycle, from mainframes in the 1970s to Artificial Intelligence today.

TCS sponsors 15 of the world's most prestigious marathons and endurance events, including TCS New York City Marathon, TCS London Marathon and TCS Sydney Marathon with a focus on promoting health, sustainability, and community empowerment. TCS generated consolidated revenues of US \$29 billion in the fiscal year ended March 31, 2024. For more information, visit [www.tcs.com](http://www.tcs.com)

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