

# Automotive configurator with banking & finance integration

A service platform that integrates cost, payment options and instalment data into the car configuration portal. Currently used by a top German manufacturer.

## Overview \_

### Client:

Major car manufacturer  
> 100000 employees  
Germany

### Business case:

- + Simplify vehicle's presentation and configuration
- + Present live data: packages, accessories, price, financing options
- + Launch the marketing websites across multiple countries with individual market specifics

## Industry \_

- + Automotive
- + Banking & Finance
- + Marketing

## Services \_

- + Software outsourcing
- + Team augmentation

## Project type \_

- + Web
- + Cloud

## Technology \_

- + JEE
- + Oracle DB
- + Glassfish
- + REST
- + SOAP
- + HTML
- + CSS
- + SCSS
- + Maven
- + Gulp
- + React
- + Angular
- + Jenkins
- + Docker
- + Selenium

## Description \_

The manufacturer and its associated bank need a common platform that can be deployed for various purposes, without producing multiple versions. It is very important to provide comprehensive functionalities by transforming project requirements into features, such as:

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- + Vehicle configurator
- + Financing options
- + Storage of financing offers
- + Price and instalment calculations
- + Marketing model tree
- + Web analytics

## Challenges \_

As a global solution to be implemented and tweaked across multiple markets, our platform has to face major challenges, such as:

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- + High level of availability, scalability and security
- + Extreme load reaching thousands of requests per second, millions of requests per day
- + Multi-market, support for different countries and regions
- + Responsiveness
- + Display mandatory legal information alongside a financial instalment
- + Continuous integration
- + Change management

## Solutions \_

We met the high expectations of both our client and their final user, with a series of cross-technology solutions:

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- + Clustering, load balancing, CDN and auto-discovery of microservices
- + Market-specific logic and content, alongside a standalone configuration application
- + Updates can be applied live, without the need of application restart
- + Nightly ETL jobs for mass calculation of prices and instalments in advance
- + Web widgets, ready to be integrated into a host application
- + Micro service architecture, each service deployed automated on multiple stages
- + Quarterly planning, development and release of new functionalities
- + Hyperparameter tuning to minimize the model while maintaining the accuracy.