Accelerated Development of Applications

Devonfw is an accelerator for Custom Software Development (CSD) projects at Capgemini. It provides a standardized architecture blueprint for Java-applications, an open best-of-breed technology stack as well as industry proven best practices and code conventions with a set of tools to enhance development.

“Unleash the power of standard open source solutions”

Benefits

Productivity
Start your projects in zero time with a standardized set of tools for development.

Reuse ready-to-use components already developed by other engagements.

Standardization
Create homogeneous workflow and solutions with best practices already applied.

Make use of the already available Open Source libraries like Spring, Hibernate, AngularJS to build upon proven solutions. Devonfw provides good documentation about why and how to use them.

Security
Make sure you don’t introduce security breaches on your solution by taking into account best development practices and tackling known vulnerabilities.

Start always with the most up-to-date version of the underlayer technologies for security and bug fixes.

Devonfw is continuously scanned for detecting known vulnerabilities in its components

Freedom of choice
Devonfw is not an all-or-nothing bundle, you are able to choose from its modules to tailor your solution.

You need a development environment? a server side solution? maybe client side? Devonfw has you covered.

Usability
Delightful developer and user experience. Provide developers with a solid and productive environment to work with and your users will get powerful and remarkable solutions.

Develop RIA (Rich Internet Applications) targeting multi-browser and multi-device.

There is no need to reinvent the wheel for each project, but reusing existing technologies with the combined experience of the software engineering community within our Group. By utilizing standard technologies you are not tied to a closed solution and being modular means that you are free to pick and choose the parts of devonfw that better suits your needs.
**Collaborative effort**

Devonfw is a collaborative effort between different Capgemini teams from all countries part of the AppsTwo (Continental Europe).

It is developed in an open collaborative environment where anybody can (and is encouraged) to contribute with code, ideas, experiences and questions.

Governance is managed by a dedicated Core Team spread between several countries like Germany, Spain and India. This Core team is fully dedicated to the task of providing a product-like experience with the tools provided by Devonfw.

The Core Team provides guidance to the engagement teams to effectively make use of Devonfw assets and convert feedback to improved experience.

New modules and functionality come directly from project real needs and what is included…

**Flexibility**

Devonfw provided technology allows custom development of any solution regarding to different business sectors: retail, financial services, utilities, public sector and so on.

It is a generic solution based on Java and HTML5 that allows for multiple types of solutions:

- Traditional web applications.
- Single Page Applications (SPA) for the web.
- Mobile apps (Hybrid mix between native + HTML5).
- Batch applications.
- Microservices.
- Standalone applications (I.e. Point of sale app).

**Battle tested solution**

All components of Devonfw have been added after successful use at real engagements. They are indeed developed because of concrete project needs and then they are generalized to become useful to a broader set of projects. The core team takes the workload of integrating back the outcome of the engagement to become a new module available for next projects.

All this experience is consolidated on a complete documentation describing the system which constitutes a solid architecture blueprint.

**Decoupling**

Devonfw is agnostic from the concrete hardware and middleware it runs on. There are projects running on JBoss, Tomcat and even go serverless. Also database is an implementation detail and there are successful projects using Oracle, MySQL or SQLServer.

Devonfw strives for a clean separation of concerns between layers of the application. For web applications this means that client and server side are fully decoupled. This allows for specialized teams working in parallel, faster prototyping of the UI and better testing of the solution.

Two options are provided for the client side:

- **Angular JS** for projects looking for a full Open Source based solution.
- **Sencha ExtJS** for projects that require very rich interactive user interface.
Service Oriented by default

Clean separation of concerns is basic when aiming for providing a Service Oriented architecture. Solutions are based on JAX-RS and JAX-WS standards for publishing/consuming services.

Devonfw makes an ideal choice for a Microservice based solution.

The SPA application model on the client side drives itself for a Service Oriented User Interface where each component/page access the required services on the back-end.

Fast bootstrap

With a ready to use development environment and sample application and templates already in place, starting a new project is a matter of minutes.

Eclipse is the IDE of choice for Devonfw projects, it is a very mature and productive tool. Several plugins are already installed and configured like the CobiGen code generator which boosts developer productivity by creating all code archifacts required from the data model to the client side page components.

Java development is based on Spring Boot framework which makes for a very streamlined way of working with Java EE projects. It makes dead-easy to add modules and new functionality to your project with a good set of defaults and pre-defined options.

The interface is the system

For final users of your application the user interface is the system.

They don’t care about the internals but for the elements they interact with.

HTML5 is a key lever to provide a powerful solution running on the browsers, be it on desktop or mobile. By using AngularJS or Sencha ExtJS with Devonfw you get a solid starting point for your solution and a rich set of components that run multi-browser and multi-platform, to provide a multi-channel experience for your users.

Mobile apps can be developed with HTML5 and packaged in native bundle with aid of tools offering the best of both worlds: performance of the native parts and flexibility/portability of the web platform.

Integrate the client-side programming into the application development workflow on the standard IDE and use powerful patterns like MVC and MVVM.
About Capgemini

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A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business ExperienceTM, and draws on Rightshore®, its worldwide delivery model.

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