













What are SAP UI5, SAP Fiori, and OPEN UI5?



MICHAEL DEVINE, DCA Computer Science, National Computing Centre, UK (1993) **Answered May 3**

As the official documentation from SAP says: SAPUI5: UI Development Toolkit for HTML5. Create apps with rich user interfaces for **modern web business applications**, responsive across browsers and devices, based on HTML₅. The key words here are 'modern web business applications'. Business applications are accessed remotely using the web (stateless) via a web browser in what is called a 'Web UI'. SAP had, in its earlier versions of software, implemented 'Web UI' using server side pages built from native code.

Since the move from html4 and xhtml to Html 5, it became necessary to redesign and rewrite the front-end applications to be compatible with the cutting edge web browsers that implemented the Html 5 standard in their browser engines.

HTML 5 is simply just an umbrella term for the next generation of web apps an how functionality will be expanded with better markup (HTML), better style (CSS), and better interactivity (JavaScript). It is massive, with over 100 specifications as part of the HTML 5 spec.

SAPUI5 offers powerful development concepts:

- One consistent user experience for your apps
- Responsive across browsers and devices smartphones, tablets, desktops
- Built-in extensibility concepts at code and application level
- Data binding types and Model-View-Controller (MVC)
- Feature-rich UI controls for handling complex UI patterns and predefined layouts for typical use cases. UI controls automatically adapt themselves to the capabilities of each device.
- Full translation support
- Keyboard interaction support and accessibility features

And many more....

SAP Fiori apps are built with **SAPUI5** and follow the SAP Fiori design guidelines to ensure consistent design and a high level of design quality. SAP Fiori app are accessed via SAP Fiori.

What is a software framework? As Wikipedia puts it: A software framework, in computer programming, is an abstraction in which common code providing generic functionality can be selectively overridden or specialized by user code providing specific functionality. Frameworks are a special case of software libraries in that they are reusable abstractions of code wrapped in a well-defined Application programming interface (API), yet they contain some key distinguishing features that separate them from normal libraries.



Software frameworks have these distinguishing features that separate them from libraries or normal user applications:

- 1. **inversion of control** In a framework, unlike in libraries or normal user applications, the overall program's flow of control is not dictated by the caller, but by the framework.[1]
- 2. **default behavior** A framework has a default behavior. This default behavior must actually be some useful behavior and not a series of no-ops.
- 3. **extensibility** A framework can be extended by the user usually by selective overriding or specialized by user code providing specific functionality.
- 4. **non-modifiable framework code** The framework code, in general, is not allowed to be modified. Users can extend the framework, but not modify its code.

What is client-side? Typically, a client is a computer application, such as a web browser, that runs on a user's local computer, smartphone, or other device, and connects to a server as necessary. Applications that run on this platform are called client-side applications.

SAP UI5 or **OPEN UI5** is a **software Framework** built with JavaScript, Ajax and JQuery, for the development of HTML 5 based **client-side applications**. Currently in its version 1.52, it provides feature-rich support towards Application development and is touted as the present and future of SAP Front-end access.

SAP UI5 Application Development: You can use SAPUI5 on different platforms. The license and maintenance conditions of the respective platforms also apply for SAPUI5.

- 1. **SAP Web IDE** is a web-based development environment that is optimized for developing SAPUI5 complex apps using the latest innovations, developing and extending SAP Fiori apps, developing mobile hybrid apps, and extending SAP Web IDE with plug-ins and templates.
- 2. **SAPUI5 Tools for Eclipse**: Used for developing apps for simple use cases. The SAPUI5 application development tools for Eclipse provide wizards to support you in creating apps in an easy way. With the application project wizard, the necessary application skeleton containing views and controllers will automatically be created. Recommend this development environment only for experienced developers, and only for simple use cases. For all other purposes, use SAP Web IDE.

Give this link a read to explore the wonderful world of SAP UI₅.

SAPUI5 SDK - Demo Kit v2.0