JavaFX is software for making desktop applications, it is thought to be the substitute for Swing as a standard library for Java. It has support for mobile devices and desktop computers. Applications that use JavaFX are written in Java.

"Qt Jambi is a Java binding of the cross-platform application framework Qt. It enables Java developers to use Qt within Java programming language. In addition, Qt Jambi generator can be used to create Java bindings for other Qt libraries and future versions of Qt. Unlike GTK there are no Swing LAF implementations that use Qt for rendering. Qt Jambi supports Linux and other flavours of Unix such as OS X, as well as Microsoft Windows. Official support for Qt Jambi by Nokia ended in March 2010, and the project is now maintained by an open source community." taken from Wikipedia.

Pivot Apache is an open source platform to create web applications in any JVM compatible languages. Widget Toolkit Kit (WTK) are graphic components where we will see more widgets than in other libraries, based on Java2D and they allow you to customize them.

"SWT (Standard Widget Toolkit) is a set of components for building Java graphical interfaces (widgets) developed by the Eclipse project. It recovers the original idea of the AWT library to use native components, thus adopting a more consistent style on all platforms, but avoiding falling into its limitations. The eclipse workbench interface also relies on a graphical user interface (GUI) layer called JFace that simplifies building SWT-based applications." taken from Wikipedia.

SwingX is an extension of the Swing API. The code is published as open source in Sun SwingLabs. The parts of the API that are mature are supposed to appear in Java 7. It's a great way to take a look at the new components and technologies the Swing team is working on, but it's not ready for an official release, what takes time etc. One of the biggest changes with the SwingX API is the use of painters. Painters give you the ability to use Java2D code to quickly define what your component looks like.