# Rich Internet Applications

We are currently experiencing a revolution in web technology – rich client applications that are as interactive, responsive and visually impressive as desk-top software but that run in a browser and so require no down load of untrusted executables.

This course will teach you to produce these applications using Flex 3.

They run on Adobe's Flash player and so will execute on the majority of machines and, as they are browser and platform independent, have the same look and feel irrespective of whether they are invoked in Firefox or IE on MAC or Vista.

What's more Adobe's basic Flex tools, which essentially provide a **programmer's API** for its ubiquitous Flash player are **free**. At a cost of less than £180, Adobe's Eclipse-based Flex builder offers a graphical interface for component layout and other IDE features. It's worth getting if you want to do any longer-term Flex development.

Flex has two languages:

a) **MXML** which is an XML-based graphical layout language (a bit like HTML but stricter, and containing many more built-in components including colour pickers and graphs etc., see http://examples.adobe.com/flex2/inproduct/sdk/explorer/explorer.html for examples) and

b) **ActionScript** which is used for the majority of the programming and is similar to JavaScript.

So if you've been impressed by the visuals and interactivity of Flash pages but been irritated by its designer-facing interface - Flex is the development environment tool for you.


## Session 1: Getting started fast

☞ Flex in five minutes and Flex vs Flash.
☞ Getting started using the free compiler and 3rd party Flex development tools.
☞ Getting started using Adobe's Flex builder IDE.
☞ Fast guide to finding your way around Adobe and 3rd party documentation including the Flex Component and Style Explorers. Plus three good books.
☞ IDE survival guide.
☞ Using the Flex builder graphical interface to write your first Hello World program.
☞ Using image and layout containers.

**Lab:** Hello-world and basic image gallery programs.


## Session 2: Flex fundamentals

☞ Structure of a typical Flex program (when and when not to use MXML and ActionScript).
☞ Importing projects.
☞ Compiling and debugging and deploying applications.
☞ More controls.
☞ Using actionListeners to handle events.

**Lab:** Extending the image gallery using behaviours.

## Session 3: More sophisticated applications

- ☞ Separating MXML, ActionScript classes and modules.
- ☞ Creating custom components
- ☞ Animation using Flex's inbuilt effects and behaviours (easing, bouncing, glowing etc.).
- ☞ Navigation in Flex apps

**Lab:** Drag and drop applications with dynamic effects.


## Session 4: Building maintainable applications

- ☞ Generating Flex style sheets the easy way.
- ☞ Using XML to provide flexible content.
- ☞ Integrating flex applications with PHP and mySQL (taster).

**Lab:** Simple XML and PHP-based e-retail front end app.