Becoming a software developer, also known as a computer programmer, you'll be playing a key role in the design, installation, testing and maintenance of software systems. The programs you create are likely to help businesses be more efficient and provide a better service.

Based on your company's particular requirements, you might be responsible for writing and coding individual programmes or providing an entirely new software resource. The specifications you'll work on will often come from IT analysts.

Software developers are employed across virtually all industry sectors, from finance and retail to engineering, transport and public organisations, so the projects you work on can be highly varied.

Sometimes you may also use 'off the shelf' software. Requiring you to modify and integrate this into an existing network to meet the needs of the business.

As a software developer, your list of tasks can include:

• Reviewing current systems
• Presenting ideas for system improvements, including cost proposals
• Working closely with analysts, designers and staff
• Producing detailed specifications and writing the program codes
• Testing the product in controlled, real situations before going live
• Preparation of training manuals for users
• Maintaining the systems once they are up and running

Opportunities

Currently, about a third of IT jobs are in development and programming and you can become a software developer across virtually all industry sectors. So if you have a particular area of interest, there's a chance you can work in a suitable industry.

In a typical progression path, you could be promoted to senior or principal developer and from there to project manager. Alternatively, you could chose to move into a related field of technology, like systems design, IT architecture and business systems analysis.

If you're keen to work for yourself, there is a chance you could work as a freelancer or consultant, giving you increased working flexibility. Overseas work is also available for those interested in seeing more of the world and working in a range of locations.

Required skills

Knowledge of programming skills is a prerequisite. However, the particular language will depend on the requirements of the specific company. Among the skills employers will look for are:

Knowledge of programming skills are a given if you want to get into software development. You'll need to be comfortable with web-based programs, as well as traditional programs like Java and Visual Basic.

The key skills to play up when you're looking for a job as a software developer are as follows:

• Expertise in current computer hardware and software
• Ability to use one or more development language (C++, PHP, HTML, etc.)
• Strong communication skills
• Ability to work in a team
• Eye for detail and identifying problems
• An understanding of business
• Analytical and commercial experience

Entry requirements

Most employers will expect you have to have a relevant computing qualification or degree, however there are companies that run trainee programmes for those with AS levels.

If you have a degree, but it's not related to IT, you could apply for a graduate trainee scheme, or take a postgraduate conversion course to build up the relevant skills.

Some of the most sought after skills by employers include Java, C++, Smalltalk, Visual Basic, Oracle, Linux and .NET. PHP are also becoming increasingly in demand.

Training

It's essential that you stay up to date with the fast paced IT industry as new developments are always appearing. Many organisations may offer a training programme to keep you updates on the latest movements within the industry, particularly relating to the business' requirements and resources.

At a junior level, you could learn many skills from more senior programmers and/or go on external courses to boost your personal skills. Much of this training will be focused on programming, systems analysis and software from recognised providers including the British Computer Society, e-skills, the Institute of Analysts and Programmers and the Institute for the Management of Information Systems.

All the software vendors, including Microsoft and Sun run accredited training too.

Hours and environment

In most cases you'll be working 37 to 40 hours a week, but when deadlines have to be met, you can be required to working longer and later hours or at weekend.

Traveling may be involved, depending whether you work in house or for a range of clients. If you do work for clients, it's likely you'll have to visit their sites and spend the majority of your time on their premises. If they're far away, it may be necessary to work away from home for a period of time. Thanks to various technological advances, there's also the possibility of working remotely from home if you're self-employed or your company allows it.