

Choosing your Final Year Project

Why is the final-year project important?

The final-year project is important for a number of reasons:

- it is the largest single piece of work you will do during your degree course;
- it is the part of the curriculum that allows you to specialize in a topic you are good at or enjoy;
- it is the part of your course that prospective employers will most likely ask you about at interview;
- it allows you to show off a wide range of the skills and knowledge learned during your course;
- it encourages integration of material learned in a number of course units;

What sort of project must I do?

- E-Commerce and Internet Systems
- Internet Application Development
- Information Systems & Networks
- Database Technologies
- Business Information Technology

General requirements for projects:

Obviously, it is not sufficient just to have a problem to solve or a question to answer to form a project. Some problems are so simple to solve that they wouldn't make an interesting (or academically worthwhile) piece of work. What is required is what is sometimes referred to as a wicked problem – one for which solutions are not well known or obvious. This doesn't necessarily mean that the problem has never been solved before but projects that simply set out to repeat someone else's work are weak unless they incorporate some new aspect or adopt a different approach.

For example, suppose you set out to replicate some of the functionality of a common software package such as Microsoft Word. You would have to select what functionality to incorporate in your system. You would be working under the constraints of time available to you. You would be restricted in the set of development tools available to you. All these would be engineering problems unique to your project that you had to solve. Looking at a project idea from that point of view would make what would appear on the surface to be a well-known problem into quite a challenging one

What will I be doing during my project?

During the course of a project, you will undoubtedly undertake many different activities. These will include:

- defining the objectives of the project;
- acquiring background information about the problem and its possible solutions;
- establishing the criteria by which your solution(s) to the problem will be judged;
- determining by what process the work will be carried out;
- planning the detailed phases of the project;
- adopting one or more design methodologies;
- analyzing requirements;
- using (or constructing) tools;
- construction of one or more artifact (hardware, software, document);
- evaluating your solution to the problem;
- Reporting on your work.

Whatever the nature of the problem you set out to solve, the conclusion of your project should be whether you solved it successfully or not.

How do I choose a project?

You can choose either a project suggested by a member of staff, or a project of your own. The only condition of the latter, to validate that your idea will make an appropriate project, is that you must find a member of staff willing to approve it.

Student suggestions

you are free to come up with a project suggestion of your own. Many projects each year arise from ideas that fall in to one or more of the following categories:

Sources of problem ideas

- suggested by your industrial placement employer (or another outside organization with which you are familiar)
- something based on your own interests (e.g. something you have read about)
- a University-based problem (e.g. related to the department's teaching, research or administration)
- a previous project that needs some further work done

Pitfalls:

Some of the most useful things to know about individual projects are the common pitfalls. Why do some projects go horribly wrong? Here are some of the common causes of failure:

- Choosing/Starting the project too late. Submit your project request form on time and start the project as soon as you can. The longer you leave it the harder it is to get motivated, especially when all your friends seem to be flying ahead. You should aim to have completed a substantial part of the project by the end of the spring term.
- Failing to meet your guide regularly. If you arrange a meeting with your supervisor, turn up at the agreed time. If you are stuck for any reason and you have no meeting arranged, contact him or her immediately. You gain no sympathy from anyone if you lose contact with your supervisor and produce a poor project as a result. Your supervisor will be happy to help you but they can do nothing if they are unaware that you are having trouble.

Allowing too little time for the report you should try to produce as much of your report as you can as you go along, even though you don't know in advance its exact structure. The last two weeks of the project should be dedicated to pulling together the material you have accumulated and producing a polished final product. You can spend time improving

- Any implementations after you have submitted the report.
- Failing to plan a fall-back position if the planned work is not completed on time. Try to plan your project in stages so that if things go wrong in a later stage you have a completed stage to fall back on.
- Trying to satisfy an external Guide at the expense of your grades. Do not let any outside interests interfere with your work. The guidance for your project should come from your supervisor, not your prospective employer.

Try to be realistic about what you can achieve in the time available. A good project requires a lot of input from you and should prove to be technically challenging throughout. At the same time, however, it is better to do a small job well than it is to fail to do a big job at all. Your supervisor will advise you on his or her expectations of the project and this will help you to set your sights accordingly