Managing a project

Managing a project involves a range of skills.

You need to:

- identify roles and responsibilities;
- carry out a range of tasks;
- be aware of deadlines;
- plan and anticipate problems; and
- deliver a product.

The Developer role

- Studies the problem; determines a solution.
- Installs software, APIs and frameworks.
- Reads documentation; learns about tools.
- Writes code; debugs code; tests code.
- Writes documentation.

For the CS/SE Individual Practical

You have been assigned this role.

The Project Manager role

- Identifies work which is to be done.
- Sets parameters such as platform/architecture/language.
- Sets priorities. Communicates priorities.
- Doesn’t install software on your machine.
- Doesn’t fix bugs in your code.

For the CS/SE Individual Practical

I have been assigned this role.

Plan for the unexpected

- In planning a project you should build in some contingency to deal with problems which could delay your progress.
- You don’t know which problems will occur, but it would be surprising if no problems occurred.

Predictable unpredictables

- It could snow — labs and facilities could be closed or inaccessible.
- Strikes could happen — staff or students elect not to work.
- You could catch flu — a flu epidemic is predicted this year.
- Laptop theft — if your laptop was stolen you would lose work.
- Laptop failure — failures can be irreparable with no warning.
- Broadband failure — your broadband service could fail.

Total cost due to predictable unpredictables

Events such as the above could delay you by a week.
Managing deadlines

- Most major projects have interim deadlines, milestones or deliverables.
- Missing interim deadlines, milestones or deliverables usually incurs a penalty of some kind.

Types of deadlines

There are different types of deadlines:

- **Soft deadlines** which are not usually specified precisely — “this should be completed by Christmas”; and
- **Hard deadlines** which must be specified precisely — “Part 2 of the CS/SE Individual Practical is due on Thursday 15th December, 2011 at 16:00”.

Dealing with hard deadlines

Factor in the potential problems with predictable unpredictables by taking the hard deadlines and subtracting the estimated delay (we are considering this to be one week).

- Part 1 of the CS/SE Individual Practical is due on Thursday 27th October, 2011 at 16:00.
  - try to complete this by Thursday 20th October, 2011 at 16:00.
- Part 2 of the CS/SE Individual Practical is due on Thursday 15th December, 2011 at 16:00.
  - try to complete this by Thursday 8th December, 2011 at 16:00.

Backing up your work

You should backup your code to your DiCE account.

**Secure copy (scp)**

It is possible to copy an entire folder to your DiCE account with just one command. If *user* is your username (e.g. s1234567)

```
scp -r ForumApp user@student.ssh.inf.ed.ac.uk:/home/user
```

will copy the folder ForumApp to your home directory