Feedback on the DPP and Getting Started

Popular topics

Popular titles this year:
- Job recruitment system
- Shopping Centre Information System
- Timetabling
- Airline Flight Information System
- Sound Studio/Player
- Scoring cricket matches
- Numerous systems for small businesses
- 'Online' games of one sort or another

Distinguish your aims from project objectives

You may aim to learn a new programming language, or to become familiar with some new technology ...
... but these are not project objectives

Why not?

Because your project is not about what happens to you: it's about the practical work you do and the thing(s) you produce as a result

- You cannot demonstrate the extent of your learning in your report
- You can show us the things you have produced
- You can demonstrate your understanding by explaining how you built 'the thing', by evaluating its quality, and by evaluating the process that you went through
Distinguish between project objectives and system requirements

Objectives are targets

Requirements are things that the system must do, or properties that it must have

Make sure your project tasks take you towards meeting project objectives

Tasks are the things you are going to do

Each of them should be geared towards reaching one or more of your targets

Some targets will have several tasks, some tasks will help you reach several targets

System requirements

One way of distinguishing functional and non-functional requirements...

The system will be able to:
- add stock records
- delete stock records
- modify stock records

The system will be:
- easy to use
- efficient
- secure

Corresponding project tasks might be:

- produce a web page to modify stock records
- implement code to add and delete stock records
- use a heuristic evaluation technique to evaluate the system’s ease of use
- investigate sorting algorithms and implement a suitable one to match customers to suppliers efficiently
- implement user accounts and a login facility

[By the end of November I am going to ...]
Planning

Most sets of objectives were weak
(see examples later in this lecture, and next section)
Most project plans are even weaker

A plan will include tasks such as "learn Java", "write IPR", and events such as "Christmas break"

but a set of objectives will not

Estimating is hard, but counting is easy

Divide up tasks until you think each could be done in a week

then count them

Value: you will soon know if you are behind schedule

What will you do then?

Some examples:

- **objective1**: Design the database
target1: mid November

- **objective2**: Implement and test the database
target2: end November

- **objective3**: Implement a web front end to the database with ASP.
target3: end December

OK as far as it goes, just rather thin

Objective 1 is much too vague
Objective 2 is not very challenging for 3 weeks work; how will we know you have done it -- what will you put in your IPR?
Does objective 3 just refer to setting up the tables? Or does it include implementing all of the programmed logic?
And now a shopping centre system

objective1: Do more in depth research into my chosen Project
target1: end October

objective2: Investigate current methods being used by shopping centres
target2: end October

objective3: Research into software and database programs able to aid me in my project
target3: end October

objective4: Produce design ideas for the user interface of the system
target4: mid November

objective5: Produce design and entity ideas for the database system
target5: end November

objective6: Prepare and write Interim Report documenting current status of my project
target6: mid December

objective7: Develop final system specification
target7: mid December

objective8: DEVELOP THE SYSTEM using all research and design ideas acquired
target8: end December

objective9: Test system all throughout its development stages
target9: end March

Another system

objective1: Learn about databases and SQL
target1: end October

objective2: Choose the database system
target2: end October

objective3: Create and implement the database
target3: mid November

objective4: Implement a web front end to the database
target4: mid November

objective5: Improve my project to a first class standard
target5: mid March

How do you improve a project?

for the Job recruitment system

When an employer adds a job, she gets a list of possible candidates, ordered by suitability, and is able to look at their details and select which she would like to email.

[don't worry about really emailing]

Observe that a vacancy wanting OO design experience with Java or C++ and databases might well be satisfied by a candidate with Ruby and SQL Server experience.
Getting Started

Design the database
   and produce an ERM
   and produce an SQL script to create the tables
   and implement the design in xxxx RDMS

Design the user interface
   and produce a storyboard
   and implement a mock-up in HTML or VB or ...

Gather the requirements
   and document them in a requirements catalogue
   and design and implement a database to meet
   an initial subset of the requirements

Write them down. Don't worry about being over-ambitious

Install the development environment
   and write a "hello world" program
   and write a "hello world" version of my project

Build prototypes (implement in stages)

If you are going to get an A1, you should be able to do a project worthy of a C by Christmas.

"with one bound he was free"