

Sample Project Brief

You have been asked to use an object-oriented approach to design a Course Administration System for Coatbank College. You should complete the attached report shell showing how you accomplished this. All sections must be completed.

The current system is paper-based and makes use of three forms, Staff Record, Student Record and Course Record. The main fields on each form are shown below:



Staff Record
Surname
Forename
Date of birth
Gender

Course Record
Course name
Start date
Duration
Location

Student Record
Surname
Forename
Date of birth
Gender
Course

Additional data and/or modification to data formats will be needed to deliver the required functionality. All processing should be carried out while the data is stored in appropriate data structures in main memory. Any existing data must be read into memory before processing commences.

The system should be able to carry out the following tasks:

- ◆ Add, delete or amend Staff details
- ◆ Add, delete or amend Student details
- ◆ Add, delete or amend Course details
- ◆ List all the Students enrolled on a specified Course
- ◆ List all the Courses a specified Student has enrolled for

Any new or amended data must be written back to backing storage on completion of processing.

The new system should be implemented using only commonly-available PC compatible hardware (including servers) and the associated system software.

There should be no visible time lags when using the system – most responses to user input should be virtually instantaneous. Exceptions can be made for bootup and shutdown procedures and for carrying out sorting operations.

All data should be regarded as persistent and must be written to backing storage on completion of processing. Transactions do not require to be logged.

The system should make effective use of graphical user interfaces with all menu selections, etc available via mouse clicks or touchscreens. Alternative options should be made available to cater for users who have difficulty in using a mouse, eg selecting menu items by number.

The budget for the entire project will be £100,000, of which £20,000 is reserved for hardware and the remainder for staffing. £20,000 is available for staffing costs at the analysis and design stages.

The system should be completed within six months, with analysis and design taking place in the first two months.