

Paper Reference(s)

**7105**

**London Examinations GCE**

**Computing**

**Ordinary Level**

Advance Notice of Case Study for Paper 1

May 2007

For distribution to candidates approximately six weeks before examination

Printer's Log. No.

**N25422A**



N 2 5 4 2 2 A

W850/U7105/57570 3/3/3/2300

This publication may be reproduced only in accordance with Edexcel Limited copyright policy. ©2007 Edexcel Limited.

*Turn over*

**edexcel**   
advancing learning, changing lives

## CASE STUDY

### Softeducation

Softeducation is a small software house which develops and publishes educational software. The programs are designed to be used by children aged from 4 to 16 years. The software ranges from simple shape and colour recognition for young children, to complete O Level revision courses.

The programs are classified by age group. The program types are:

- pre-school
- infant
- junior
- secondary.

Softeducation has been in business for more than twenty years and has continuously improved and re-written its programs as machine specifications have improved. Many of its early programs have been updated and converted to run on PCs. Each version of the program is given a version number. For example, a program was written to teach fractions in arithmetic. Version 1.00 of this program was written in BASIC and version 3.06 was written in Visual Basic 6.

The O Level revision courses, published on CD or DVD by Softeducation, make extensive use of multimedia. They use internal hypermedia links and external hyperlinks to Softeducation's web site. Users who open an account with Softeducation can access Internet-based versions of the courses on the Softeducation web site. These users pay for each minute of access.

Softeducation uses a database to keep track of its programming projects. The current version of the database contains two tables: SOFTWARE and PROGRAMMER.

- SOFTWARE (program ID, program name, type, medium, age group, original date, latest version number, latest version date, original programmer ID, current programmer ID, platforms)

The *type* field contains the program type, using courseD and courseI for disk-based and Internet-based courses respectively.

The *medium* field shows how the program is delivered i.e. CD, DVD, Internet.

The *original date* field shows when the original program was released for sale.

The *latest version date* field shows when the latest version was released for sale.

The *platforms* field is a 250-byte free text (memo) field which lists all the combinations of computer type and operating system that the program will run on e.g. Pentium PCs; Windows 9x, Me, XP.

- PROGRAMMER (programmer ID, name, address1, address2, address3, telephone, languages)

The *name* field contains both the first name and surname of the programmer.

The *languages* field is a 250-byte free text (memo) field that lists the programming languages that the programmer uses e.g. BASIC; VB 4, 5, 6; Java.

This database is more difficult to use and less efficient than the original database. When the database was first made, it had a simpler structure. At that time Softeducation only employed three programmers and each program was written for a specific type of computer and operating system. As the company grew, new fields were added to the database. The present database does not always find the information that is needed. For example:

- when a programmer who can write in Visual Basic 5 is needed, it takes several search attempts to find one
- one of the programs has a latest version number of 2.04. When a customer contacts the company to ask if version 1.33 will run under Windows XP, the information cannot be found.

**BLANK PAGE**