Database Analysis and Design

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1994-1995

Reading list

- R.P.Whittington: *Database Systems Engineering*
  Oxford University Press, 1988. [SK90 WHI: 4 copies in JMBL (1 ordinary, 3 yellow) and 5 copies in College libraries] [Paperback £17.50?]
- D.E.Avison: *Information Systems Development: A Database Approach*
  Blackwell, 2nd edn, 1992. [SK90 AVI: 4 copies (1 ordinary, 2 yellow, 1 weekend)] [Paperback £16.99?]
- F.R.McFadden and J.A.Hoffer: *Database Management*
  Benjamin/Cummings, 2nd edn 1988 or 3rd edn 1991 [SK90 McF: 1 copy of each edition (ordinary)] [A 4th edn, 1994, is in the shops with the title *Modern Database Management*: it's not as good as the previous two edns; £22.95]
- R.Elmasri and S.B.Navathe: *Fundamentals of Database Systems* Benjamin/Cummings, 2nd edn, 1994. [SK90 ELM: There are 2 copies (1 ordinary, 1 yellow) of the 1st edn, which is perfectly OK for this course] [Paperback (2nd edn) £24.95]
- H.F.Korth and A.Silberschatz: *Database System Concepts*
  McGraw-Hill, 2nd edn, 1991. [SK90 KOR: 1 copy (ordinary)] [Paperback £21.95]
- C.J.Date: *An Introduction to Database Systems, Volume I*
  Addison-Wesley, 5th edn 1990. [SK90 DAT: There are copies of editions 1-3 in the library; only small parts of these editions remain pertinent. There are 4 copies of the 4th edn, 1986, which are perfectly OK for this course (1 ordinary, 2 yellow, 1 weekend). The only copies of the 5th edition (6 of them) are in College libraries] [Paperback £24.95]
- Course Notes (for sale through Computer Science office)
- R:BASE Reference Manual. [SK46 RBA/M: 3 copies (1 ordinary, 2 yellow)]
- R:BASE User Manual. [SK46 RBA/M: 3 copies (1 ordinary, 2 yellow)]
- Any number of other books you might find in section SK90 in the library

Students' Charter

Shows approximate lecture numbers and some possible further reading. 'ch' stands for chapter and the following abbreviations are used to refer to the books: NOTES are the course notes, WHI is Whittington's book, AVI is Avison's book (2nd edn), McF is McFadden & Hoffer's book (3rd edn), ELM is Elmasri & Navathe's book (1st edn), KOR is Korth & Silberschatz's book (2nd end), and DAT is Date's book (5th edn).

Week	Lecture	Topic to be covered and relevant literature
1	1-2	Introduction to databases and database design. NOTESch1-2, WHIch1-2&ch8, AVIch1-2, McFch1&ch3-6, ELMch1&ch16, KORch1, DATch1.
2	3-4	Conceptual data modelling. NOTESch3, WHIch9, AVIch3, McFch3-6, ELMch3, KORch2, DATch22.
3	5	The relational data model. NOTESch4, WHIch4, AVIch3, McFch3-6, ELMch6, KORch3&5, DATch11-12.
	6	Logical data modelling. NOTESch4, WHIch10, AVIch3, McFch3-6, ELMch13-14, KORch6, DATch21.
4	7	Logical data modelling. NOTESch4, WHIch10, AVIch3, McFch3-6, ELMch13-14, KORch6, DATch21.
	8	The architecture of a relational database system and database implementation. NOTESch5, WHIch3, AVIch4, ELMch2, DATch2&ch4-5.
5	9	Database implementation. NOTESch5, WHIch11-13, AVIch4, McFch8, DATch2&ch4-5.
	10	Relational algebra. NOTESch6, WHIch4, AVIch4, McFch13, ELMch6, KORch3, DATch13.
6	11	SQL. NOTESch7, WHIch5, AVIch8, McFch12, ELMch7, KORch4, DATch6.
	12	The external level. NOTESch8, WHIch5, AVIch8, McFch12, ELMch7, DATch8.
7	13-14	The internal level. NOTESch9, WHIch7, AVIch5, McFch7, ELMch4-5, KORch7-8, DATch2.
8	15	The implementation of relational algebra. NOTESch10, ELMch18, KORch9.
	16	Query optimisation. NOTESch10, ELMch18, KORch9, DATch18.
9	17-18	The effect of application design and a couple of words about the exam. NOTESch11-12, WHIch7&ch11-13, AVIch6&ch9-13, McFch8-9.