

Higher Information Systems

2006 q.1 Relational Databases Data Anomalies

Kwik Kut employs a number of stylists each of whom has a number of regular customers. Details of appointments are kept in a database created from data in un-normalised form. The sample below shows an entry in the database.

Describe **two** problems that would be encountered when modifying the customer's telephone number in the database. **(2)**

Stylist	Sharon
Appointment Date	23/06/06
Appointment Time	10.00
Customer Name	Pamela Forsyth
Customer Phone Number	01554 775643

2007 01 Relational Databases Data Anomalies

Below is a sample taken from a travel agency's holiday booking database. All data is held in a single table.

Describe **one** problem with deleting a holiday booking record from this database. **(2)**

Booking reference	HT6745
Date of arrival	21/07/07
Length of stay	7 nights
Hotel name	Hilton
Hotel location	Glasgow
Customer name	John Jackson
Customer address	25 Brighton Place, Hamilton
Customer telephone number	02654 576431

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2008 01 Relational Databases Data Anomalies

A shop's database has been created from data in un-normalised form. The diagram below shows 4 records from a table in the database.

- a. Choose a suitable primary key for this table. Give **one** reason for your choice. (2)
- b. Describe **one** problem with deleting an item from this table. (2)

Item Number	Item Description	Item Price	Supplier	Supplier Address	Supplier Telephone
12123	Canvas	£5.99	Fabriceeze	21 Castle Street	03214 665447
12234	Fine Brushes	£5.99	Colour Solutions	32 Fort Street	03118 876540
13224	Oil Paints	£35.99	Colour Solutions	32 Fort Street	03118 876540
23441	Spray Paints	£12.99	Colour Solutions	32 Fort Street	03118 876540

2008P q.1 Relational Databases Data Anomalies Insertion Anomaly

Below is a sample taken from a library database created from data in un-normalised form. Describe **one** problem of inserting data into this table. (2)

Borrower Name	Daniel McBride
Borrower Address	11 Danforth Terrace
Borrower Phone No.	01632 961435
Book Title	A Long Way Home
Book Author	Elaine McAllister
Date Borrowed	21/07/07

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2009P q.1 Relational Databases Data Anomalies Deletion Anomaly

Below is a sample sales record taken from a Camera Shop's sales database created from data in an un-normalised form.

Describe one problem which may arise when a record is deleted from this database. **(2)**

Sales Assistant ID	349
Sales Assistant Name	Samir Singh
Time of sale	13.07
Date of sale	12/04/08
Item	Sonya 450 ISUX camera
Price of item	£458.99

2010 q.1 a Relational Databases Data Anomalies Insertion Anomaly

The Scottish Tennis Association stores details about players and clubs in a single table. Below is a record from this table. "Player no" is the primary key.

a. Describe one data insertion problem with this database design. **(2)**

Player no	10124
Name	Donald Gryffe
Date of birth	5th May 1995
Rating	4.2
Tennis club	Newlloyd
Club address	22 Granton Place, Paisley
Club telephone	01234 987654