

Higher Information Systems

2006 q.2 Relational Databases Keys

Each tutor group in a secondary school is identified by a code made up from its year and tutor's initials. For example, Alice Smith's S3 tutor group has the code S3AS.

Identify **two** problems associated with using this *meaningful identifier* as a primary key. **(2)**

2007 02 Relational Databases Keys

A driving licence number is a meaningful identifier made up from data based on a person's surname, date of birth and initials. For example,

SMITH 804017 AA3QZ

The last 3 characters are generated randomly.

a. Explain why the last 3 characters must be included for the driving licence number to be used as a primary key. **(2)**

b. Describe a problem in using the driving licence number as a primary key. **(2)**

2007 03 Relational Databases Keys

What is a *foreign key* in a relational database? **(2)**

2007P q.5 Relational Databases Keys Surrogate Key

When would it be appropriate to create a *surrogate key* for an entity? **(2)**

2008 06 Relational Databases Keys

State **one** reason why a *surrogate key* would be used in a table. **(2)**

2008P q.3 Relational Databases Keys Surrogate Key

The following is an extract from a mail order company's database:

Give **one** reason why a surrogate key be might used in this table. **(2)**

Customer No	Item No	Order date	Order time	Quantity
34561	AS32B	2/7/07	9:30	4
67532	DF564F	2/7/07	10:16	7
98810	VV45M	2/7/07	10:43	3
34561	AS32B	2/7/07	11:02	6
34561	VL11D	2/7/07	11:02	6

2008P q.4 Relational Databases Keys Foreign Key

What is a foreign key in a relational database? **(2)**

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2009 01 Relational Databases Keys

Part of a table from a kitchen manufacturer's database is shown below.

- Describe one possible data modification problem with this table.
- A primary key cannot be created from the attributes shown.

Describe how a primary key could be created for this table. **(2)**

Name	Address	Part No	Description	Cost
D. Aitken	4 Rowan Road	Z445	Corner cupboard	£79.99
D. Aitken	4 Rowan Road	Z449	Glass cabinet	£149.99
J. Stevens	32 Ash Wynd	Y108	Shelf brackets	£19.50
J. Stevens	32 Ash Wynd	Z445	Corner cupboard	£79.99

2009 02b Relational Databases Keys

Define the term foreign key. **(2)**

2009P q.13 Relational Databases Keys Surrogate Key

The sample table shown below is an extract from a "used car" relational database operated by a garage.

- Why would the creation of a *surrogate key* be appropriate for this table? **(2)**
- Suggest a suitable surrogate key. **(1)**

Make	Model	Colour	Mileage	Previous owner	Price (£)
Ford	Focus	Blue	10500	G Evans	7999
Ford	Fiesta	Red	12000	Y Khan	4599
Renault	Laguna	Blue	5500	G Evans	10799
Ford	Fiesta	Red	10500	L MacDonald	5699
Honda	Civic	Red	12000	O Harrison	9899