# Zain Qayyum

# Database Systems

Lab 7

### 3 November 2014

#### Initial data:

PackID	TagNum	InstallDate	SoftwareCost
AC01	32808	09-13-1995	754.95
DB32	32808	12-03-1995	380.00
	37691	06-15-1995	380.00
DB33	57772	05-27-1995	412.77
WP08	32808	01-12-1996	185.00
	37691	06-15-1995	227.50
	57222	05-27-1995	170.24
WP09	59836	10-30-1995	35.00
	77740	05-27-1995	35.00

### 1. This is garbage.

PackID	TagNum	InstallDate	SoftwareCost
AC01	32808	09-13-1995	754.95
DB32	32808	12-03-1995	380.00
DB32	37691	06-15-1995	380.00
DB33	57772	05-27-1995	412.77
WP08	32808	01-12-1996	185.00
WP08	37691	06-15-1995	227.50
WP08	57222	05-27-1995	170.24
WP09	59836	10-30-1995	35.00
WP09	77740	05-27-1995	35.00

- 2. (See above table)
- 3. The primary key is PackID.

PackID	TagNum	InstallDate	SoftwareCost	PackName	PcModel
AC01	32808	09-13-1995	754.95	Zork	Dell
DB32	32808	12-03-1995	380.00	Portal	Dell
DB32	37691	06-15-1995	380.00	Portal	HP
DB33	57772	05-27-1995	412.77	Forza	Lenovo
WP08	32808	01-12-1996	185.00	Macro	Dell
WP08	37691	06-15-1995	227.50	Macro	HP
WP08	57222	05-27-1995	170.24	Macro	Lenovo
WP09	59836	10-30-1995	35.00	Micro	Asus
WP09	77740	05-27-1995	35.00	Micro	Samsung

- 4. (See above table)
- Functional dependencies: PackName dependent on PackID, PcModel dependent on TagNum, InstallDate and SoftwareCost are dependent upon TagNum and PackID.
- 6. The primary key is the PackID and TagNum.

PackID	PackName
AC01	Zork
DB32	Portal
DB32	Portal
DB33	Forza
WP08	Macro
WP08	Macro
WP08	Macro
WP09	Micro
WP09	Micro
DB32 DB33 WP08 WP08 WP08 WP09	Portal Forza Macro Macro Macro Micro

7. The primary keys are PackID and TagNum

TagNum	PcModel
32808	Dell
32808	Dell
37691	HP
57772	Lenovo
32808	Dell
37691	HP
57222	Lenovo
59836	Asus
77740	Samsung

PackID	TagNum	InstallDate	SoftwareCost
AC01	32808	09-13-1995	754.95
DB32	32808	12-03-1995	380.00
DB32	37691	06-15-1995	380.00
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WP08	57222	05-27-1995	170.24
WP09	59836	10-30-1995	35.00
WP09	77740	05-27-1995	35.00

- 8. Functional dependencies: PackName dependent on PackID, PcModel dependent on TagNum, InstallDate and SoftwareCost are dependent upon TagNum and PackID.
- 9. The new tables are in third normal form because every non-prime attribute of the tables are now directly dependent on the primary key.

