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3/21/17

Lab 7

Database Management

Part One:

1.) I reply by telling him that the data is good, but the table needs some adjustments as it is not in First Normal Form because there are multiple pieces of data in single cells.

2.)

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	09-13-2005	754.95
DB32	32808	12-03-2005	380.00
DB32	37691	06-15-2005	380.00
DB33	57772	05-27-2005	412.77
WP08	32808	01-12-2006	185.00
WP08	37691	06-15-2005	227.50
WP08	57222	05-27-2005	170.24
WP09	59836	10-30-2005	35.00
WP09	77740	05-27-2005	35.00

3.) The primary key is PackageID and TagNumber

Part Two:

1.)

PackageID	TagNumber	InstallDate	SoftwareCostUSD	SoftwarePackageName	ComputerModel
AC01	32808	09-13-2005	754.95	Zork	IBM
DB32	32808	12-03-2005	380.00	Portal	IBM
DB32	37691	06-15-2005	380.00	Portal	Apple
DB33	57772	05-27-2005	412.77	Portal2	Asus
WP08	32808	01-12-2006	185.00	Fallout	IBM
WP08	37691	06-15-2005	227.50	Fallout	Apple
WP08	57222	05-27-2005	170.24	Fallout	HP
WP09	59836	10-30-2005	35.00	Fallout2	Dell
WP09	77740	05-27-2005	35.00	Fallout2	Acer

2.) (PackageID, TagNumber) → SoftwareCostUSD, SoftwarePackageName, ComputerModel

3.) This table is not in 3NF because it is not in 2NF. The primary key determines SoftwarePackageName, but so does PackageID. The primary key also determines ComputerModel, but so does TagNumber.

Part Three:

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	09-13-2005	754.95
DB32	32808	12-03-2005	380.00
DB32	37691	06-15-2005	380.00
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WP08	57222	05-27-2005	170.24
WP09	59836	10-30-2005	35.00
WP09	77740	05-27-2005	35.00

PackageID	SoftwarePackageName
AC01	Zork
DB32	Portal
DB33	Portal2
WP08	Fallout
WP09	Fallout2

TagNumber	ComputerModel
32808	IBM
37691	Apple
57772	Asus
57222	HP
59836	Dell
77740	Acer

- 1.) (PackageID, TagNumber), PackageID, and TagNumber respectively.
- 2.) (PackageID, TagNumber) → SoftwareCostUSD
PackageID → SoftwarePackageName
TagNumber → ComputerModel
- 3.) The new tables are in 3NF because they have no partial key dependencies, nor any multi-key dependencies.
- 4.)

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	09-13-2005	754.95
DB32	32808	12-03-2005	380.00
DB32	37691	06-15-2005	380.00
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PackageID	SoftwarePackageName
AC01	Zork
DB32	Portal
DB33	Portal2
WP08	Fallout
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TagNumber	ComputerModel
32808	IBM
37691	Apple
57772	Asus
57222	HP
59836	Dell
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