

Part 1

1. I would tell Freddy that his spreadsheet is garbage because he has more than one value in a cell and the column names are a little too arbitrary.

2.

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	09-13-2005	745.95
DB32	32808	12-030-2005	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. (PackageID, TagNumber)

Part 2

4.

PackageID	TagNumber	InstallDate	SoftwareCostUSD	SoftwareName	CompModel
AC01	32808	09-13-2005	745.95	Eclipse	Apple
DB32	32808	12-030-2005	380.00	Popcorn Time	Apple
DB32	37691	06-15-2005	380.00	Popcorn Time	Microsoft
DB33	57772	05-27-2005	412.77	Atom	Lenovo
WP08	32808	01-12-2006	185.00	Sketch	Dell
WP08	37691	06-15-2005	227.50	Sketch	Panasonic
WP08	57222	05-27-2005	170.24	Sketch	Acer
WP09	59836	10-30-2005	35.00	Zork	Sony
WP09	77740	05-27-2005	35.00	Zork	HP

5. (PackageID, TagNumber) -> InstallDate, SoftwareCostUSD

PackageID -> SoftwareName

TagNumber -> Computer Model

6. Because there are 3 keys, partial key dependencies, and redundant data

Part 3

7. PackageID is the primary key for the for the Software table. PackageID and TagNumber is the primary key for the associate entity or Tracking table. TagNumber is the primary key for the Computer table.

8. Software Table: PackageID -> SoftwareName

Tracking table: PackageID, TagNumber -> InstallDate, SoftwareCostUSD

Computer Table: TagNumber -> ComputerModel

9. There are no multiple key dependencies for a single table and now there are no more repeating groups. For the Tracking table I assumed that you need PackageID and TagNumber to find the SoftwareCostUSD and not PackageID and InstallDate.

PackageID	SoftwareName
AC01	Eclipse
DB32	Popcorn Time
DB32	Popcorn Time
DB33	Atom
WP08	Sketch
WP08	Sketch
WP08	Sketch
WP09	Zork
WP09	Zork

PackageID	TagNumber	InstallDate	SoftwareCostUSD
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WP09	77740	05-27-2005	35.00

TagNumber	CompModel
32808	Apple
32808	Apple
37691	Microsoft
57772	Lenovo
32808	Apple
37691	Panasonic
57222	Acer
59836	Sony
77740	HP

