

Joseph Gust
3/21/2017

Part one:

1. It's good, but not yet ready to become a table. We're just going to have to make some tweaks.
2. 1NF:

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 a composite made of PackageID and TagNumber.

Part Two:

4.

PackageID	PackageName	TagNumber	ComputerModel	InstallDate	SoftwareCostUSD
AC01	Diablo 2	32808	IBM Thingamajig	09-13-2005	754.95
DB32	Oregon Trail	32808	IBM Thingamajig	12-03-2005	380.00
DB32	Oregon Trail	37691	Mac Watchamacallit	06-15-2005	380.00
DB33	Starcraft	57772	Lenovo G-Unit	05-27-2005	412.77
WP08	Star Wars Battlefront 2	32808	IBM Thingamajig	01-12-2006	185.00
WP08	Star Wars Battlefront 2	37691	Mac Watchamacallit	06-15-2005	227.50
WP08	Star Wars Battlefront 2	57222	somePC	05-27-2005	170.24

WP09	Morrowind	59836	anotherPC	10-30-2005	35.00
WP09	Morrowind	77740	theBestPC	05-27-2005	35.00

5. PackageName is dependent on PackageID, and ComputerModel is dependent on TagNumber.

6. It's not in third normal form because it's not in second normal form. It's not in second normal form because PackageID and TagNumber are both dependent on parts of the primary key, not the whole key.

Part Three:

Installations

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

Software

PackageID	PackageName
AC01	Diablo 2
DB32	Oregon Trail
DB32	Oregon Trail
DB33	Starcraft
WP08	Star Wars Battlefront 2
WP08	Star Wars Battlefront 2
WP08	Star Wars Battlefront 2
WP09	Morrowind

WP09	Morrowind
------	-----------

Hardware

TagNumber	ComputerModel
32808	IBM Thingamajig
32808	IBM Thingamajig
37691	Mac Watchamacallit
57772	Lenovo G-Unit
32808	IBM Thingamajig
37691	Mac Watchamacallit
57222	somePC
59836	anotherPC
77740	theBestPC

7. PackageID is the primary key for the software table, TagNumber is the primary key for the hardware table. PackageID and TagNumber together make up the composite primary key for the Installations table.

8. PackageName is dependent on PackageID. ComputerModel is dependent on TagNumber. InstallationDate and SoftwareCostUSD are dependent on the composite of PackageID and TagNumber.

9. The new tables are in third normal form because they comply with 1NF, 2NF now that we've decomposed the table into 3 tables, and all of the dependencies are dependent only on the primary keys making it fulfill the last requirement for 3NF.

10.

