

Part One:

1. I would reply with, it needs improvement. I would suggest that the TagNumbers be in ascending order to be able to find the data easier. I would then suggest inputting a PackageName to be able to know what the software is for each PackageID.
- 2.

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

3. The primary keys are TagNumber and PackageID.

Part Two:

- 4.

TagNumber	PackageID	Software	CompModel	InstallDate	SoftwareCostUSD
32808	AC01	Portal	IBM	09-13-2005	754.95
32808	DB32	Zork	IBM	12-03-2005	380.00
32808	WP08	PGAdmin	IBM	01-12-2006	185.00
37691	DB32	Zork	Apple	06-15-2005	380.00
37691	WP08	PGAdmin3	Apple	06-15-2005	227.50
57222	WP08	PGAdmin3	Dell	05-27-2005	170.24
57772	DB33	Zork2	Asus	05-27-2005	412.77
59836	WP09	PGAdmin4	Chromebook	10-30-2005	35.00
77740	WP09	PGAdmin4	Lenovo	05-27-2005	35.00

(I made up some some software and computer models to fill the table for an example)

5. The functional dependencies within in this table are TagNumber and CompModel and PackageID and Software. An example would be that certain types of software depends on the type of computer.
6. This table is not in third normal form because there are attributes that depend on other attributes from the same table. For example, the SoftwareCostUSD depends on the installDate because the price varies depending on the date.
7. The primary keys for all the tables are, Software, InstallDate, TagNumber, SoftwareCostUSD, and PackageID.
8. There are no functional dependencies in these tables because they have been decomposed and put into 3rd normal form.
9. The new tables are in 3rd normal form because there are no transitive dependencies, only repeating groups are found in 1st normal form.
- 10.

