

Part One:

1. There can be multiple tag numbers to a packageID. The packageID or tag number does not uniquely identify a row.
2. 1NF

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	9-13-2005	754.95
DB32	32808	12-03-2005	380.00
DB32	37691	6-15-2005	380.00
DB33	57772	5-27-2005	412.77
WP08	32808	1-12-2005	185.00
WP08	37691	6-15-2005	227.50
WP08	57222	5-27-2005	170.24
WP09	59836	10-30-2005	35.00
WP09	77740	5-27-2005	35.00

3. The primary key does not exist in 1NF as there are multiple entries of PackageID and TagNumber. There does exist a candidate key of the two.
- 4.

PackageID	TagNumber	SoftwareName	ComputerModel	InstallDate	SoftwareCostUSD
AC01	32808	Portal	IBM	9-13-2005	754.95
DB32	32808	OracleDB	IBM	12-03-2005	380.00
DB32	37691	OracleDB	Apple	6-15-2005	380.00
DB33	57772	Microsoft SQLServer	Dell	5-27-2005	412.77
WP08	32808	Adobe Photoshop	IBM	1-12-2005	185.00
WP08	37691	Adobe Photoshop	Apple	6-15-2005	227.50
WP08	57222	Adobe Photoshop	Dell	5-27-2005	170.24
WP09	59836	Microsoft Word	Lenovo	10-30-2005	35.00
WP09	77740	Microsoft Word	Asus	5-27-2005	35.00

5. packageID -> SoftwareName

TagNumber -> ComputerModel

packageID, TagNumber -> InstallDate, SoftwareCostUSD

6. This table is not in 3NF because there are multiple dependencies to different keys.

7. Software Table PK – PackageID

Orders Table PK – PackageID, TagNumber

Computer Table PK - TagNumber

8. Software Table - packageID -> SoftwareName

Computer Table - TagNumber -> ComputerModel

Orders Table - packageID, TagNumber -> InstallDate, SoftwareCostUSD

9. These new tables are in 3NF because each table only has one functional dependency

10.

