

1.

a) I will say “Nice try bud, but let’s make it better.”

b)

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	59536	10-30-2005	35.00
WP09	77740	05-27-2005	35.00

c) The primary keys are PackageID and InstallDate.

2.

a)

PackageID	TagNumber	InstallDate	SoftwareCostUSD	SoftwarePackageName	ComputerModel
AC01	32808	09-13-2005	754.95	Zork	IBM
DB32	32808	12-03-2005	380.00	Portal	Apple
DB32	37691	06-15-2005	380.00	Battlefield 1	Lenovo
DB33	57772	05-27-2005	412.77	CoD4	Alienware
WP08	32808	01-12-2006	185.00	Windows 10	HP
WP08	37691	06-15-2005	227.50	Lollipop	Google

WP08	57222	05-27-2005	170.24	Internet Explorer	Asus
WP09	59536	10-30-2005	35.00	Skype	Apple
WP09	77740	05-27-2005	35.00	Some Game	IBM

c) The table isn't in third normal form because it isn't in second normal form and there are only partial key dependencies.

3.

a) TagNumber, PackageID are primary keys.

b) PackageID → SoftwareName

TagNumber → ComputerModel

(PackageID, TagNumber) → InstallDate, SoftwareCostUSD

c) The new tables in third form because it is now in second normal form and there are multiple dependencies.

d) ER diagram

