

1.)

a.) The data looks good but we need to organize it into a table and include some missing components.

b.)

Tycho Installed Software

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	09-13-2005	754.95
DB32	32808	12-03-2005	380.00
DB32	37691	12-03-2005	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.)PackageID, TagNumber (Composite Key)

2.)

a.)

Tycho Installed Software 2

PackageID	TagNumber	PkgName	CompModel	InstallDate	SoftwareCost USD
AC01	32808	Weather	Apple	09-13-2005	754.95
DB32	32808	Zork	Apple	12-03-2005	380.00
DB32	37691	Zork	IBM	12-03-2005	380.00
DB33	57772	Pong	Lenovo	05-27-2005	412.77
WP08	32808	Portal	Apple	01-12-2006	185.00
WP08	37691	Portal	IBM	06-15-2005	227.50
WP08	57222	Portal	Dell	05-27-2005	170.24
WP09	59536	Scores	Commodore	10-30-2005	35.00
WP09	77740	Scores	HP	05-27-2005	35.00

b.)

PackageID, TagNumber |---> PackageID, TagNumber, PkgName, CompModel, InstallDate, SoftwareCostUsd

TagNumber |---> CompModel

PackageID |---> PkgName

c.) This new table is not in 3rd normal form because the non-primary attributes CompModel and PkgName are functionally dependent to non-primary attributes TagNumber and PackageID.

3.)

a.)

Tycho Installed Software

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	09-13-2005	754.95
DB32	32808	12-03-2005	380.00
DB32	37691	12-03-2005	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

Packages

PackageID	PkgName
AC01	Weather
DB32	Zork
DB33	Pong
WP08	Portal
WP09	Scores

### Computers

TagNumber	CompModel
32808	Apple
37691	IBM
57772	Lenovo
57222	Dell
59536	Commodore
77740	HP

b.) Tycho Installed software: TagNumber, PackageID

Packages: PackageID

Computers: TagNumber

c.) The new tables are in third normal form because there are no functional dependencies other than those relating to the primary key

d.)



