

Part One

Your data looks great, but there's room for improvement.

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	9/13/05	\$754.95
DB32	32808	12/3/05	\$380.00
WP08	32808	1/12/06	\$185.00
DB32	37691	6/15/05	\$380.00
WP08	37691	6/15/05	\$227.50
WP08	57222	5/27/05	\$170.24
DB33	57772	5/27/05	\$412.77
WP09	59836	10/30/05	\$35.00
WP09	77740	5/27/05	\$35.00

Primary Key: PackageID + TagNumber

Part Two

PackageID	PackageName	TagNumber	ComputerModel	InstallDate	SoftwareCostUSD
AC01	Adobe CS6 Master Collection	32808	HP	9/13/05	\$754.95
DB32	Zork	32808	HP	12/3/05	\$380.00
WP08	MS Office	32808	HP	1/12/06	\$185.00
DB32	Zork	37691	Apple	6/15/05	\$380.00
WP08	MS Office	37691	Apple	6/15/05	\$227.50
WP08	MS Office	57222	Dell	5/27/05	\$170.24
DB33	QuickBooks Pro	57772	Lenovo	5/27/05	\$412.77
WP09	Portal	59836	Asus	10/30/05	\$35.00
WP09	Portal	77740	Acer	5/27/05	\$35.00

Functional Dependencies

PackageID --> PackageName

TagNumber --> ComputerModel

PackageID, TagNumber --> SoftwareCostUSD

This is not in third normal form because there are partial dependencies, such as SoftwareName and PackageID. There are also multiple key dependencies, with several keys possibly being the primary key.

Part Three

Packages Table

PackageID	PackageName
AC01	Adobe CS6 Master Collection
DB32	Zork
DB33	QuickBooks Pro
WP08	MS Office
WP09	Portal

Primary Key: PackageID

Functional Dependencies: PackageID --> PackageName

Computers Table

TagNumber	ComputerModel
32808	HP
37691	Apple
57222	Dell
57772	Lenovo
59386	Asus
77740	Acer

Primary Key: TagNumber

Functional Dependencies: TagNumber --> ComputerModel

Installations Table

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	9/13/05	\$754.95
DB32	32808	12/3/05	\$380.00
DB32	37691	6/15/05	\$380.00
DB33	57772	5/27/05	\$412.77
WP08	32808	1/12/06	\$185.00
WP08	37691	6/15/05	\$227.50
WP08	57222	5/27/05	\$170.24
WP09	59836	10/30/05	\$35.00
WP09	77740	5/27/05	\$35.00

Primary Key: PackageID + TagNumber

Functional Dependencies: PackageID + TagNumber --> SoftwareCostUSD

These tables are in third normal form because there are no partial key or multiple key dependencies.

