

Part One: Alex Millet and I collaborated on this lab

The primary key of this table would be a combination of the PackageID and TagNumber because

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	9/13/05	754.95
DB32	32808	12/3/05	380
DB32	37691	6/15/05	380
DB33	57772	5/27/05	412.77
WP08	32808	1/12/06	185
WP08	37691	6/15/05	227.5
WP08	57222	5/27/05	170.24
WP09	59836	10/30/05	35
WP09	77740	5/27/05	35

I would suggest normalizing the data; it seems to be a good start but would be much more effic

Part 2:

PackageID	TagNumber	InstallDate	SoftwareCostUSD	PackageName
AC01	32808	9/13/05	754.95	Zork
DB32	32808	12/3/05	380	Portal
DB32	37691	6/15/05	380	Portal
DB33	57772	5/27/05	412.77	Ofiice
WP08	32808	1/12/06	185	McCafe
WP08	37691	6/15/05	227.5	McCafe
WP08	57222	5/27/05	170.24	McCafe
WP09	59836	10/30/05	35	Visio
WP09	77740	5/27/05	35	Visio

Functional Dependencies: When given the primary key, one knows the specific data for that row  
Primary Key --> InstallDate, SoftwareCostUSD, PackageName, ComputerModel

In this database, the primary key is composed of two dependencies PackageID and TagNumber

Part Three:

PackageID	PackageName
AC01	Zork
DB32	Portal
DB33	Office
WP08	McCafe
WP09	Visio

Primary key: PackageID  
Functional Dependencies  
PackageID --> PackageName

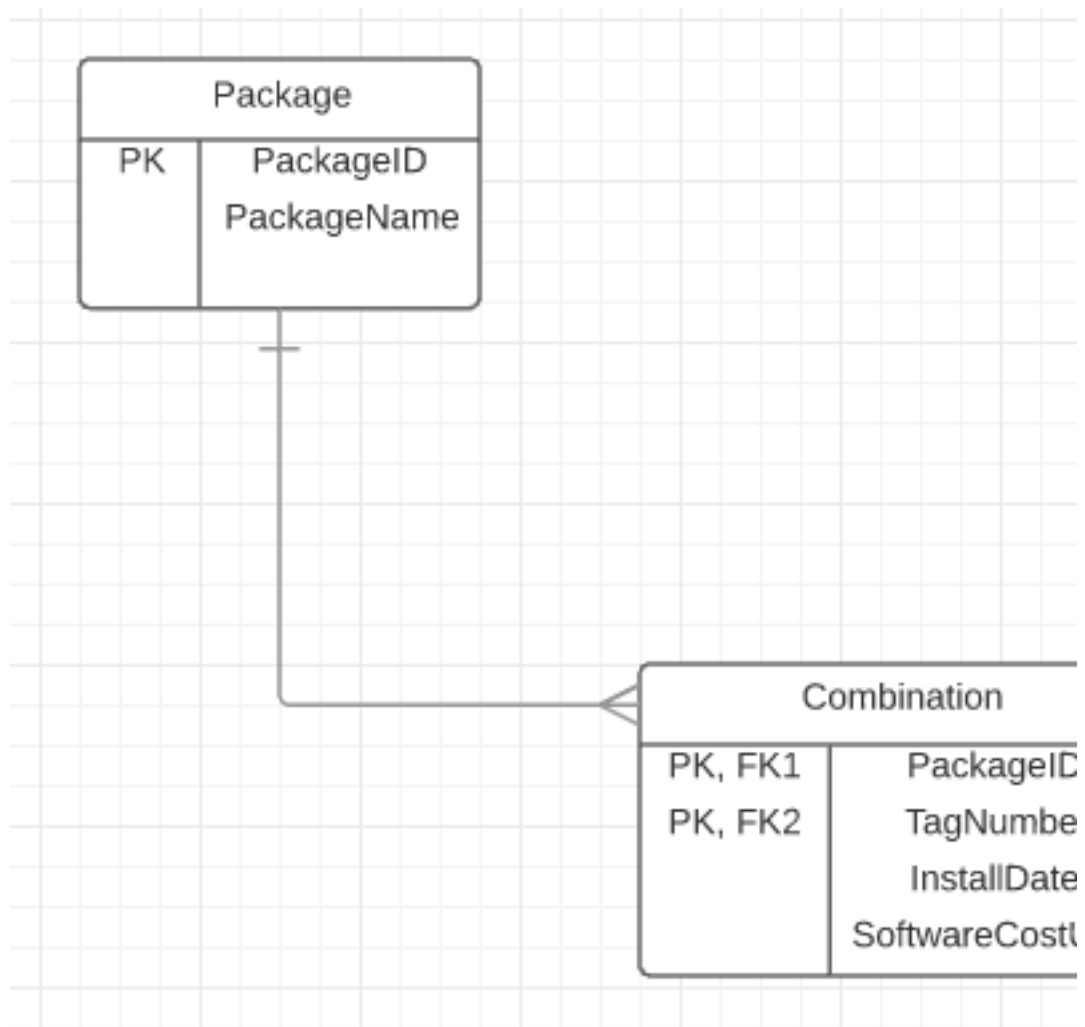
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AC01	32808	9/13/05	754.95
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WP09	77740	5/27/05	35

The tables are in third normal form due to each table being dependent on one single key (prim:

ERD:



ie this creates a unique combination. This allows the data to be seen in a unique way.

cient if each piece of data had its own cell.

ComputerModel

Apple

Apple

HP

IBM

Apple

HP

IBM

Lenovo

Acer

w (InstallDate, SoftwareCostUSD, PackageName, ComputerModel)

· which violates a rule in 2nd Normal Form(partial key dependencies). Since it is not in secon

TagNumber	ComputerModel	Primary Key: TagNumber Functional Dependencies TagNumber --> ComputerModel
32808	Apple	
37691	HP	
57772	IBM	
59836	Lenovo	
77740	Acer	

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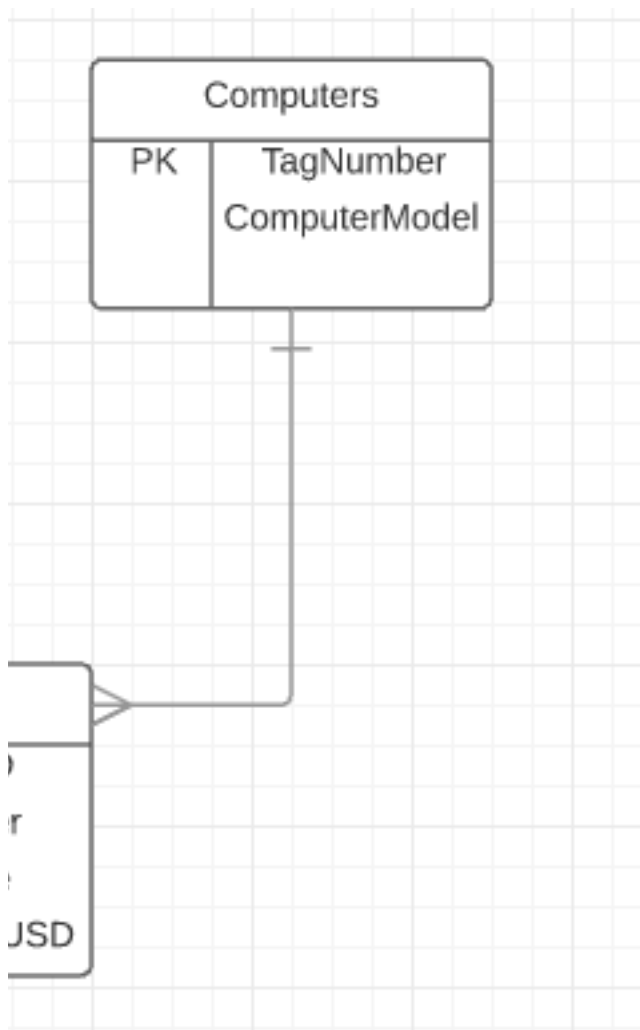
PackageName	ComputerModel
Zork	Apple
Portal	Apple
Portal	HP
Office	IBM
McCafe	Apple
McCafe	HP
McCafe	IBM
Visio	Lenovo
Visio	Acer

Primary Key: PackageID & TagNumber

Functional Dependencies

PackageID, TagNumber --> InstallDate, SoftwareCostU

ary key) and it also abides to the rules of the 2nd and 1st normal form. Every cell is atomic



nd normal form it it cannot be in 3rd normal form.

ISD, PackageName, ComputerModel

and the table that is composed of the two primary keys contains data that can be uniquely id



entifies by the combination of these keys.