Lab 7: Normalisation Faith Mazzone

1)

My response would likely be, "Thanks, Mr Johnson, looks like a great start!" and avoid talking about the issues with it before I start.

2)

PackageID	TagNumber	InstallDate	SoftwareCostUSD
AC01	32808	09-13-2005	754.98
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	59836	10-30-2005	35.00
WP09	77740	05-27-2005	35.00

3)

PackageID and TagNumber combined are the primary key.

4)

PackageID	TagNumber	InstallDate	SoftwareCostUSD	PackageName	ComputerModel
AC01	32808	09-13-2005	754.98	Zork	Apple
DB32	32808	12-03-2005	380.00	Portal	Apple
DB32	37691	06-15-2005	380.00	Portal	IBM
DB33	57772	05-27-2005	412.77	Mirror's Edge	Lenovo
WP08	32808	01-12-2006	185.00	Bioshock	Apple
WP08	37691	06-15-2005	227.50	Bioshock	IBM
WP08	57222	05-27-2005	170.24	Bioshock	Lenovo
WP09	59836	10-30-2005	35.00	Heavy Rain	Acer
WP09	77740	05-27-2005	35.00	Heavy Rain	Alienware

5)

The functional dependencies are as follows:

PackageID -> PackageName

TagNumber -> ComputerModel

PackageID, TagNumber -> InstallDate

PackageID, TagNumber, InstallDate -> SoftwareCostUSD

6)

It is not in third normal form as there are partial dependencies

7)

Packages Table:

-PackageID is the primary key

Computers Table:

-TagNumber is the primary key

Installations Table:

-PackageID, TagNumber, and InstallDate is a composite primary key

8)

Packages Table:

-PackageID -> PackageName

Computers Table:

-TagNumber -> ComputerModel

Installations Table:

- PackageID, TagNumber, InstallDate -> SoftwareCostUSD

9)

There are no longer any partial dependencies, as SoftwareCostUSD is entirely dependent on all three parts of the primary key, and both PackageName in the Packages table and TagNumber in the Computers table are entirely dependent on their respective primary keys.

10)

