

Assignment 7

-Vishnu Meduri

Part One:

1.

Though the spreadsheet shows all the data it is quite difficult to retrieve Information from that spreadsheet. It is better to convert that spreadsheet to a table in Relational Database to make it simple for collecting information.

2.

PackId*	TagNum*	InstallDate	SoftwareCost
AC01	32808	09-13-1995	754.95
DB32	32808	12-03-1995	380.00
DB32	37691	06-15-1995	380.00
DB33	57772	05-27-1995	412.77
WP08	32808	01-12-1996	185.00
WP08	37691	06-15-1995	227.50
WP08	57222	05-27-1995	170.24
WP09	59836	10-30-1995	35.00
WP09	77740	05-27-1995	35.00

* : specifies the primary key

3.

The primary key for the above table can only be formed by taking both the PackId and TagNum columns.

Part Two:

4.

PackId*	TagNum*	InstallDate	SoftwareCost	Computer Model	SoftwarePack
AC01	32808	09-13-1995	754.95	Apple	MS-Word
DB32	32808	12-03-1995	380.00	Apple	PostgreSQL
DB32	37691	06-15-1995	380.00	Toshiba	PostgreSQL
DB33	57772	05-27-1995	412.77	Dell	OracleDB
WP08	32808	01-12-1996	185.00	Apple	Apache HTTP Server
WP08	37691	06-15-1995	227.50	Toshiba	Apache HTTP Server
WP08	57222	05-27-1995	170.24	IBM	Apache HTTP Server
WP09	59836	10-30-1995	35.00	IBM	Internet Explorer
WP09	77740	05-27-1995	35.00	Dell	Internet Explorer

5.

The functional dependencies in the above table are:

PackId → SoftwarePack, TagNum → ComputerModel

The SoftwarePack which is the name for the software is dependent on PackId and ComputerModel is dependent on the TagNum.

6.

The above table is not in Third Normal form because all the columns do not depend on one single column.

Part 3 :

7.

The Table Softwares has PackId and SoftwarePack. So PackId is taken as primary key.

The table Systems has TagNum and ComputerModel. So TagNum is primary key.

8.

SoftwarePack is dependent on PackId.

ComputerModel is dependent on TagNum.

9.

The attributes of each table are dependent on their primary keys and all tables must be in 2NF. Therefore the tables are in 3NF.

10.

