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Lab 7

Part 1
1. The Spreadsheet gives me the information I need to make this database, but I will have to organize it a little different to make it a working database. That way the data will be more consistent and better organized as more orders are added.

2.

	package_id character varying(5)	tag_number integer	install_date date	software_cost_usd numeric(10,2)
1	AC01	32808	2005-09-13	754.95
2	DB32	32808	2005-12-03	380.00
3	DB32	37691	2005-06-15	380.00
4	WP08	57772	2005-05-27	412.77
5	WP08	32808	2005-01-12	185.00
6	WP08	37691	2005-06-15	227.50
7	WP08	57222	2005-05-27	170.24
8	WP08	59836	2005-10-30	35.00
9	WP08	77740	2005-05-27	35.00

3. The primary key for this table is {package_id, tag_number}

Part 2
4.

	package_id character varying(5)	tag_number integer	install_date date	software_cost_usd numeric(10,2)	package_name text	computer_model text
1	AC01	32808	2005-09-13	754.95	Windows 8	Acer
2	DB32	32808	2005-12-03	380.00	Photoshop	Acer
3	WP08	32808	2005-01-12	185.00	Microsoft Word	Acer
4	DB32	37691	2005-06-15	380.00	Photoshop	Asus
5	WP08	37691	2005-06-15	227.50	Microsoft Word	Asus
6	DB33	57772	2005-05-27	412.77	AutoCad	Lenovo
7	WP08	57222	2005-05-27	170.24	Microsoft Word	HP
8	WP09	59836	2005-10-30	35.00	Pinball	Dell
9	WP09	77740	2005-05-27	35.00	Pinball	Samsung

5. package_id → package_name
   tag_number → computer_model
   (package_id, tag_number) → software_cost_usd, install_date

6. This table is not 3NF because two of the table values are dependent on other table values. Those are package_id to package_name and tag_number to computer_model. This violates the rules of the third normal form.

Part 3

7. <u>Primary Keys</u>

      package_id is primary key for table Software
      tag_number is primary key for table Computers
      (package_id, tag_number) is primary key for table Installs

8.
  <u>Software</u>
      package_id → package_name
  <u>Computers</u>
      tag_number → computer_model
  <u>Installs</u>
      (package_id, tag_number) → install_date, software_cost_usd

9. It is in 3NF form because it meets all of the requirements of 1NF, 2NF and 3NF form. Each attribute is totally dependent on the value of the primary keys in the table. This means that it is valid 3NF form.

10.