

Class Exercise – 9.2

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Submission: Save this Word document with your answers as a PDF file and upload the PDF file to Canvas.

CyberToys

You handle administrative support for CyberToys, a small chain that sells computer hardware and software and specializes in personal service. The company has four stores located at malls and is planning more. Each store has a manager, a technician, and between one and four sales reps. The owners want to create a personnel records database, and they asked you to review a table that they had designed. They suggested fields for store number, location, store telephone, manager name, and manager home telephone. They also want fields for technician name and technician home telephone and fields for up to four sales rep names and sales rep home telephones.

Expressing the table design in standard notation:

PERSONNEL(StoreNumber, Location, StoreTelephone, ManagerName, ManagerHomeTelephone, TechnicianName, TechnicianHomeTelephone, RepName1, RepHomeTelephone1, RepName2, RepHomeTelephone2, RepName3, RepHomeTelephone3, RepName4, RepHomeTelephone4)

1. Analyze the table using the normalization concepts you learned in the chapter.

Looking at this table design, the first two things I notice are that there are no primary keys underlined and that there is potential for a repeating group in “location” as there could potentially be multiple stores in one close location. There could also be repeating groups in “rep names” as sometimes representatives will work for multiple stores in a region.

Normalizing the table would help with data collection and organization.

2. What do you think of their design and why?

I think the design has all the right components, it just needs to be fleshed out and separated into groups that contain data pertaining to each primary key. Overall, the unnormalized version of this table has the data and is on the right track.

3. What would you propose?

I would propose normalizing the table by splitting the data into groups for STORE, MANAGER, TECHNICIAN, and REP. Doing so would divide data into tables that can be easily referenced side by side to see each store’s information, the manager and technician for that store, and which representatives do sales for each store.