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 Database Management
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 Normalization Homework One

PART I

1) As an overview of your data, the table is good. However, we can make some improvements to add more structure and clarity to help us clearly search for data.

2)

<u>PackageID</u>	<u>TagNumber</u>	<u>InstallDate</u>	<u>SoftwareCostUSD</u>
AC01	32808	9/13/2005	754.95
DB32	32808	12/3/2005	380.00
DB32	37691	6/15/2005	380.00
DB33	57772	5/27/2005	412.77
WP08	32808	1/12/2006	185.00
WP08	37691	6/15/2005	227.50
WP08	57222	5/27/2005	170.24
WP09	59836	10/30/2005	35.00
WP09	77740	5/27/2005	35.00

3) The PackageID and TagNumber together form the primary key.

PART II

4)

<u>PackageID</u>	<u>TagNumber</u>	<u>InstallDate</u>	<u>SoftwareCostUSD</u>	<u>SoftwarePackName</u>	<u>ComputerModel</u>
AC01	32808	9/13/2005	754.95	Portal	Apple
DB32	32808	12/3/2005	380.00	Zork	Apple
DB32	37691	6/15/2005	380.00	Zork	HP
DB33	57772	5/27/2005	412.77	OCR	Dell
WP08	32808	1/12/2006	185.00	Adobe	Apple
WP08	37691	6/15/2005	227.50	Adobe	HP
WP08	57222	5/27/2005	170.24	Adobe	Asus
WP09	59836	10/30/2005	35.00	TEG	Toshiba
WP09	77740	5/27/2005	35.00	TEG	Acer

5) PackageID determines SoftwarePackName

TagNumber determines ComputerModel

PackageID and TagNumber together determine InstallDate and SoftwareCostUSD

6) It is not in 3NF because the other attributes in the table are all dependent on the primary key. There are also no partial dependencies, and it is also not even in 2NF.

PART III

7) For table Installs; PackageID and TagNumber

For table Softwares; PackageID

For table Computers; TagNumber

8) For table Installs; PackageID and TagNumber determine InstallDate and SoftwareCostUSD

For table Softwares; PackageID determines SoftwarePackName

For table Computers; TagNumber determines ComputerModel

9) Now, since all non key attributes do not depend on other non key attributes, the table is in 3NF.

10) ER Diagram

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Question 10

