David Medvedev

1. The data is not organized and would be hard to work with. It needs to be normalized to be consistent, eliminate any instances of redundancy and make it more flexible.

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| --- | --- |
| PACKID | TAG NUM |
| AC01 | 32808 |
| DB32 | 32808 |
| DB32 | 37691 |
| DB33 | 57772 |
| WP08 | 32808 |
| WP08 | 37691 |
| WP08 | 57222 |
| WP09 | 59836 |
| WP09 | 77740 |

|  |  |
| --- | --- |
| PACKID | Software Cost |
| AC01 | 754.95 |
| DB32 | 380 |
| DB32 | 380 |
| DB33 | 412.77 |
| WP08 | 185 |
| WP08 | 227.5 |
| WP08 | 170.24 |
| WP09 | 35 |
| WP09 | 35 |

|  |  |
| --- | --- |
| PACKID | Install Date |
| AC01 | 9/13/1995 |
| DB32 | 12/3/1995 |
| DB32 | 6/15/1995 |
| DB33 | 5/27/1995 |
| WP08 | 1/12/1996 |
| WP08 | 6/15/1995 |
| WP08 | 5/27/1995 |
| WP09 | 10/30/1995 |
| WP09 | 5/27/1995 |

1. Primary Key: PACK ID

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| PACKID | PackageName | Model | TAG NUM | Software Cost | Install Date |
| AC01 | Zork | Apple | 32808 | 754.95 | 9/13/1995 |
| DB32 | Portal | Hp | 32808 | 380 | 12/3/1995 |
| DB32 | Volix | Dell | 37691 | 380 | 6/15/1995 |
| DB33 | Zoa | Lenovo | 57772 | 412.77 | 5/27/1995 |
| WP08 | Boa | Alienware | 32808 | 185 | 1/12/1996 |
| WP08 | Noah | Monkey | 37691 | 227.5 | 6/15/1995 |
| WP08 | Daniel | Samsung | 57222 | 170.24 | 5/27/1995 |
| WP09 | Craig | Samsung | 59836 | 35 | 10/30/1995 |
| WP09 | Awesome | Random | 77740 | 35 | 5/27/1995 |
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1. A dependency would be the PACK ID on the PackageName because once it is given a package name it is given an ID so it can be identified with a unique numeric value.
2. The database is not in third normal form because it does not meet the conditions that require it, it is not in second normal form so it must be in first normal form.
3. Primary Keys: PACK ID, TagNum, Install Date
4. PACK ID – Package Name

MODEL – TAGNUM

INSTALL DATE – SOFTWARE COST – PACKID

1. The new tables are now in third normal form because they meet the respective standards of being in second normal form and it now has a transitive dependency.