Data Volume Table

The table below shows the significant data stored and retain for each business entity when the system starts operating. Data volume requirement will affect the database server configuration.

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| --- | --- | --- | --- |
| Entity Class | Source Document | Retention Period | Target Volume |
| Product Information | Product Form | 8 years. Need to keep for 8 years. | The supermarket has 80,000 kinds of products now and we assume that each product has a product form.  And we assume that each year the supermarket will take in 1000 new products.  Now: 80,000 product Information  8yr: (80,000+1000)× 8=648,000 product Information |
| User Profile | User account form | 5 years | Assume growth of employee is 12.5% and this system is only used for internal workers.  Now: 32 user account  5yr: 32+4×5=52 user account |
| Supplier Profile | Supplier form | 8 years | Assumption 1: Because some of the products are from the same supplier, we assume that average 2 product has 1 supplier.  Assumption 2:  The supermarket has 80,000 kinds of products now.  Assumption 3:  Every year the growth of new products of the supermarket is 3%.  Now: 40,000 supplier  forms  8yr: 40,000×3%×8+40,000=49,600 |
| Order | Order form | 8 year | Assume every year each product needs to be ordered for 6 times.  1yr: 80,000×6=48,000 order form  8yr: 48,000×8=384,000 order form |
| Cash Register | End-of-Day sales form | 8 years | End-of-Day sales form each shift: 1  End-of-Day sales form every day: 2  1yr: 2×365=730 End-of-Day sales form  8yr: 730×8=5,840 End-of-Day sales form |
| Billing Details | Receipt | 3 years | Assume 700 customers will place order each day in this supermarket and the annual growth of the customer is 10%.  1yr: 700×365=255,500  3yr: 255,500(1+10%)=281,050 |
| Classification Details | Product Form | 4 years | 1 week: 1 Classification Details  1yr: 52×1=52  4 yr: 52×4=208 |
| Price Change | Price Form | 4 years | Assume the owner will change the price of some certain products twice every month.  1yr: 2×12=24 Price Change form  4yr: 24×4=96 Price Change form |
| Shelf Inventory | Shelf form | 3 years | Assume every shift of the promoter will record a shelf inventory.  1 day: 2 Shelf Inventory record  1yr: 2×365=730 Shelf Inventory record  3yr: 730×3=2,190 Shelf Inventory record |
| Store Inventory | Store form | 8 years | The supermarket has 80,000 kinds of products now. Assume every product needs a store inventory record.  1yr: 80,000 store inventory records  8yr: 648,000 store inventory records |
| Category | Product Form | 8 years | Assume every 2 year there will be 2 category added.  Now: 10  8yr: 18 |
| Subcategory | Product Form | 8 years | The supermarket has 80,000 kinds of products now.  Subcategory: 80,000/10=8,000  8yr: 640,000/18=35,556 |