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Database Management
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Hierarchical and Pre-relational Database

The first data models for storing data came about in the 1960s. Titled "IMS," IBM created this data model. IBM, however, was asked to create this database by Rockwell, who was originally asked to create it by NASA. The IMS model is a type or hierarchical model. There has to be a single point at the top of the model. In order to find other data or information, the user has to work their way down the model. This however can cause many problems. First, the user would have to look through every tree branch to find all the content. If the data does not have any meaning yet, however, it belongs in the database, it cannot be found. There will also be a duplication of data. For example, in NBA hierarchy would have NBA at the top, then all 30 teams underneath, then every player on that team listed, then each players stats. If a player had never had a stat, they might not be listed, even though they are on the team.

Following the IMS model came the Network Model. The network model almost the same as the hierarchical model, however is much more flexible. Down the line, the same data can be shared. Whereas a hierarchical model has a one to many relationships, a network model has many to many relationships, which make it more flexible thus easier to find information. This was used until the 1970s when the relational model was developed.

The relational model was much more easier to navigate than previous data models. Information is placed in tables of rows and columns. This enforces consistency. If all the tables all set up correctly within many to many relationships, the database will be constantly updated with all of the data, even if it is not in use yet. This fixes the problems with earlier data model types.

Considering this, XML as a data storage seems like a decent idea. XML allows different applications to read files. So if you are a business and need to transfer certain information and data from a client, XML should support the file no matter what. Thus, it will be easier to find information in a timelier manner.