

Database at risk (Data)

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SQL Server databases are primarily backed by two categories of files – [data files](#) and [log files](#). The data files contain all of the data related to the database, including tables, indexes, and object definitions, while the log files contain a log of all of the changes which have been made to that data. Data files are further subdivided into primary and secondary data files, which can be grouped into collections called filegroups.

As databases grow in size, the underlying data files will naturally grow as well. When a database grows to the point that a data file filegroup cannot grow any further, further attempts to add data will result in an error. When your data files are full, you can increase free space by manually increasing the size of the files, increasing the free space available on the disk, or by adding additional data files on new disks. Instructions on how to add new files are available [here](#).

Data files may be configured to grow automatically to prevent out-of-space situations, but they remain limited by the space available on the disk drive, and autogrowth should generally be considered a failsafe alternative. It is a better practice to manually grow your data files to accommodate for expected growth before they fill up.