A file-based storage system is a traditional method of organizing and managing data on a computer or storage device. In this system, data is stored in separate files, each containing a specific piece of information. These files can be text documents, spreadsheets, images, audio files, or any other type of digital information. While file-based storage systems are simple and easy to understand, they come with several challenges:

1. Lack of Data Structure: In a file-based system, data is typically organized into individual files with no inherent structure or relationships between them. This makes it challenging to establish connections between related pieces of data, leading to data redundancy and inefficiency.
2. Data Redundancy: Without a centralized repository for shared data, file-based systems often result in data duplication. The same information may be stored in multiple files, leading to inconsistencies and wasted storage space.
3. Limited Data Retrieval: Retrieving specific information from a file-based system can be cumbersome, especially when searching for data across multiple files. Users often need to navigate through directories and open multiple files to find what they need.
4. Inefficient Data Updates: Updating or modifying data in a file-based system can be error-prone and time-consuming. If data needs to be updated in multiple places, it's easy to introduce inconsistencies.
5. Limited Data Security: File-based systems offer limited security features. Access control and data encryption are often challenging to implement, making it difficult to protect sensitive information.
6. Scalability Issues: As data grows, managing and organizing files becomes increasingly complex. File-based systems may not scale well, leading to performance bottlenecks and reduced efficiency.
7. Lack of Data Integrity: Maintaining data integrity, such as enforcing referential integrity constraints, is difficult in a file-based system. This can result in data inconsistencies and errors.
8. Backup and Recovery Challenges: Backing up and recovering data in a file-based system can be challenging, especially if there are a large number of files scattered across different directories.
9. Collaboration Issues: Collaborative work on shared data is difficult in a file-based system. Users may overwrite each other's changes or encounter version control problems.
10. Limited Data Analysis: Analyzing data stored in a file-based system can be cumbersome. Extracting meaningful insights or performing complex data analytics tasks can be challenging due to the lack of structured data.