Server Overview :

- Total Storage: 4 TB
- Current Allocations:
    - SQL: 5 GB
    - Shared Folders: 460 GB
    - Syncthing: 460 GB
    - Backup: Remaining space (~3 TB)

Optimization Plan for Shared Folders :

Current Issue:

Unwanted data in shared folders is increasing backup size and consuming valuable storage.
Proposed Solutions:

- **Audit and Cleanup:**
    - Perform a detailed audit to identify unwanted, duplicate, and outdated files.
    - Use tools like Fdupes to scan and identify duplicate files on the server.
    - Review the duplicate files and remove unnecessary ones to free up storage space.
- **Automate Cleanup:**
    - Schedule periodic cleanup scripts to remove temporary files, redundant files, or files older than a specific date.
- **Backup Strategy:**
    - Exclude unnecessary files and folders from backup processes.
    - Create a whitelist of critical folders for backup to reduce size.

Optimization Plan for Syncthing :

Current Issue:

Limited storage (460 GB) is nearly full, with only 37.5 GB remaining. Entire systems are being backed up, leading to inefficiency.

Proposed Solutions:

Storage Optimization Plan

To address storage constraints on the server, we propose the following measures:

1. **Per-Employee Storage Quota**
   - Divide the 460 GB Syncthing storage equally among employees, allocating **40 GB per user**.
   - Enforce these quotas through Syncthing or external monitoring tools to ensure compliance.
2. **Selective Synchronization**
   - Review files being synced and limit synchronization to **critical files or folders** only.
   - Disable synchronization of temporary files, logs, or non-work-related data to optimize space usage.
3. **Incremental Backup Strategy**
   - Implement incremental backups to save storage space:
     - Perform an initial full backup.
     - Back up only the files modified since the last backup.
   - Retain only the **most recent backup**, replacing older versions.
4. **Monthly Backup Rotation**
   - Continue with monthly backups of the Syncthing system.
   - Automatically delete the previous month's backup when a new one is created.
5. **Data Audit and Cleanup**
   - Regularly audit the Syncthing storage to identify and remove redundant or obsolete files.
   - Encourage employees to clean up unused or non-essential files within their allocated storage.
6. **Monitoring and Alerts**
   - Set up real-time monitoring to:
     - Notify employees when they are nearing their storage limits.
     - Track the largest files or rapidly growing folders for immediate attention.

By implementing these strategies, we can effectively optimize server storage while ensuring efficient and reliable backups.