**📌 Project Objective**

To develop a **secure, automated, and cloud-integrated backup and recovery system** that protects critical organizational data from loss due to hardware failures, natural disasters, or human errors.

**📂 Project Components**

1. backup.php
   * Handles the process of creating backups.
   * Likely zips and uploads files to a cloud location (Amazon S3, Google Drive, etc.).
2. restore.php
   * Fetches and restores backups from cloud storage to the local system.
3. configure.php
   * Used to set up cloud storage credentials, source folders, and backup options.
4. verify.php**and**test\_service.php
   * Verify connectivity and integrity of backup storage locations or services.
5. **Documentation Files (**/docs/**)**
   * Provide insights into system architecture, minimum requirements, and performance benchmarks.

**☁️ Key Features and Technologies**

* **Cloud Storage Integration:** Supports remote backup storage (could be extended for AWS S3, Dropbox, etc.).
* **Automated Backup Scheduling:** Can be integrated with cron jobs on a server.
* **Data Encryption & Compression:** Typically used to secure and reduce storage size.
* **Data Integrity Checks:** Ensures files are correctly backed up and retrievable.
* **PHP Backend:** Lightweight and easy to deploy on most web servers.

**📈 Benefits**

* Eliminates dependence on physical hardware.
* Supports remote data access and restoration.
* Reduces downtime in disaster recovery scenarios.
* Cost-efficient and scalable.

**📚 Possible Enhancements**

* Add **email notifications** after each backup.
* Integrate with popular APIs (AWS S3 SDK, Google Drive API).
* Implement **GUI/dashboard** for easier access and management.
* Include **version control** for backups.