

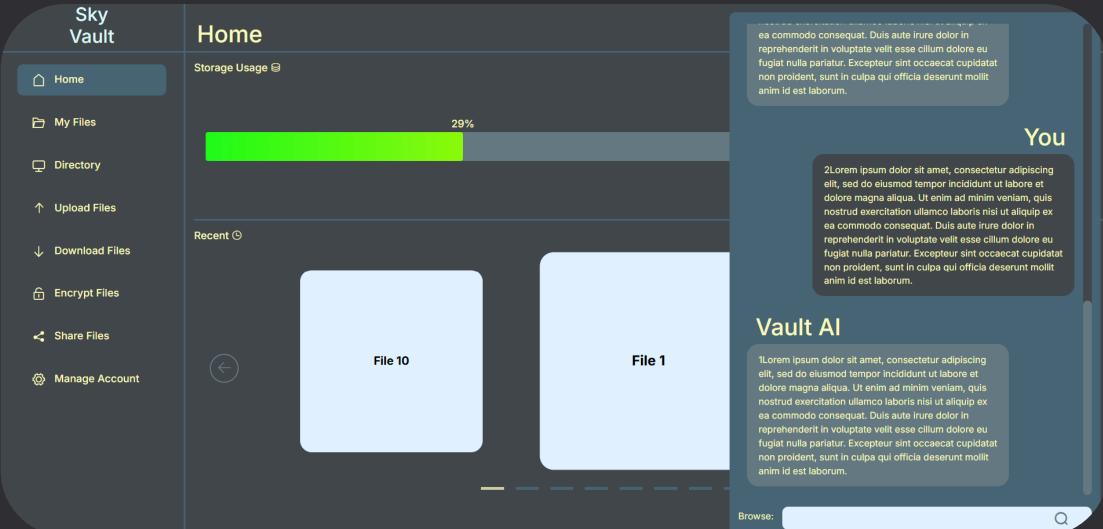
"Secure Cloud Storage, Anywhere You Go"



Secure login portal with encryption

Sky Vault	My Files			Browse:	Q
☐ Home	Name ‡	Type ‡	Size ‡	Modified Date ‡	Uploaded Date ‡
	Favorites				
My Files	Example File 1	MOV	143.63 MB	2025-02-21 22:20:28	2025-03-23 22:20:28
	Example File 2	ТХТ	658.67 MB	2025-02-2122:20:28	2025-03-03 22:20:28
□ Directory	Example File 3	VUE	680.96 MB	2025-04-02 22:20:28	2025-03-11 22:20:28
↑ Upload Files	Example File 4	JPEG	469.03 MB	2025-03-22 22:20:28	2025-03-19 22:20:28
	Example File 5	PNG	220.72 MB	2025-03-21 22:20:28	2025-03-30 22:20:28
↓ Download Files	Recent				
	Example File 6	MOV	844.32 KB	2025-03-12 22:20:28	2025-02-22 22:20:28
€ Encrypt Files	Example File 7	ТХТ	266.22 MB	2025-03-21 22:20:28	2025-04-05 22:20:28
	Example File 8	VUE	114.90 MB	2025-03-19 22:20:28	2025-03-03 22:20:28
Share Files	Example File 9	JPEG	458.83 MB	2025-03-01 22:20:28	2025-03-05 22:20:28
	Example File 10	PNG	271.21 MB	2025-04-03 22:20:28	2025-03-15 22:20:28
Manage Account					

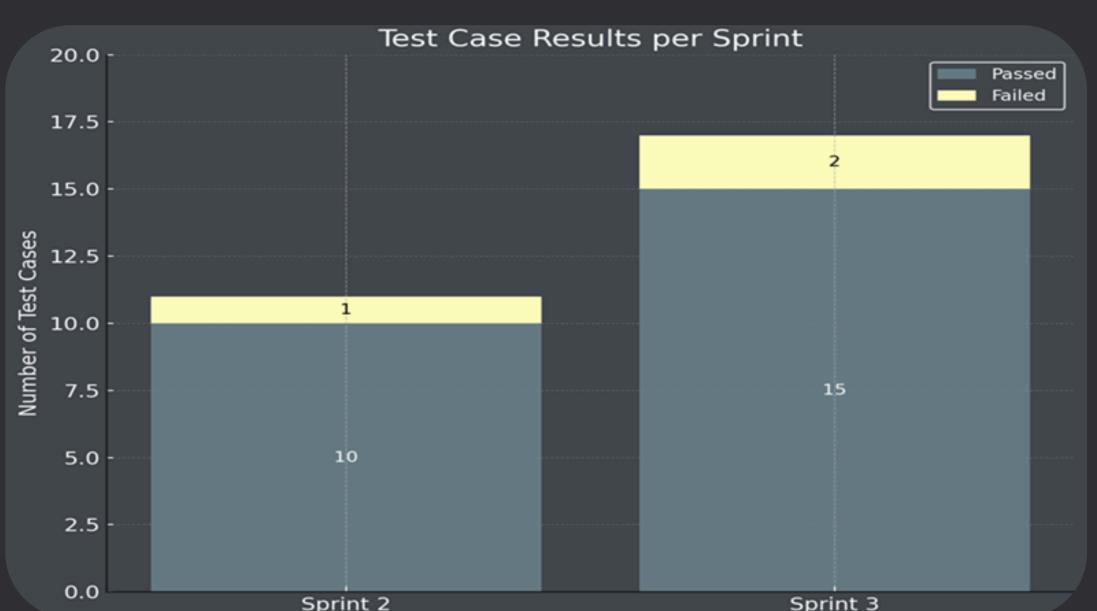
Users can upload, view, and download files



Ollama AI Assistant helps users navigate and ask questions

```
module.exports = {
            downloadFile(req, res, next) {
                const filename = req.params.filename;
10
                console.log('Filename:', filename);
11
12
                const filePath = path.join(__dirname, '../../uploads', filename)
13
                console.log('File Path:', filePath);
14
15
                if (fs.existsSync(filePath)) {
16
                    res.download(filePath, filename, (err) => {
17
                        if (err) {
18
                             console.error('Download error:', err);
19
                             return next(err);
20
21
22
                    });
                  else {
23
                    console.log('File not found!');
24
                    res.status(404).send('File not found');
25
```

Backend code for downloading encrypted files from the server



Test results showing feature validation across development sprints

Meet the Team

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Instructor: Dr. Jingpeng Tang

What is SkyVault?

SkyVault is a web-based cloud storage system that encrypts user files and allows access from any device. Users can upload, view, and download files securely from anywhere.

Core Features

- Encrypted cloud storage
- Upload / Download / View files
 - Built-in AI chatbot (Ollama)
 - Directory and file manager
 - Intuitive user interface

How it Works:

Users upload files via the Vue.js frontend, which communicates with a Node.js backend. Files are encrypted, stored in a MySQL database, and accessed from any device. An integrated Al assistant helps users interact with the platform.

Tech Stack

- Vue.js
- Node.js
- npm + Turbo
 - MySQL
- Ollama Al

QA Metrics

Our testing plan covers the backend, frontend, and database of our cloud storage system, focusing on file operations, authentication, and security. We have applied techniques like equivalence partitioning, boundary analysis, and state-transition testing. Testing will follow development phases and address risks like database downtime and security flaws.

Conclusion

SkyVault makes it easy and safe to store your files online. With built-in encryption, smart features, and solid testing behind the scenes, users can count on smooth, secure access to their files anytime, anywhere.