Automating Deployment from GitHub to cPanel

This presentation guides you through setting up automatic deployment from a GitHub repository to a cPanel server using GitHub Actions. By following these steps, you'll create a seamless workflow that deploys your project whenever changes are pushed to your repository.

We'll cover everything from generating SSH keys to configuring GitHub Actions workflows, ensuring your deployment process is secure, efficient, and fully automated.

S **by Solomon Danso**

Made with Gamma

Generating SSH Keys

Generate the Key Pair

Open your terminal and run: ssh-keygen -t rsa -b 4096 -C "ceo@hydottech.com"

When prompted for file location, press Enter to use the default (~/.ssh/id_rsa). Optionally, set a passphrase for added security.

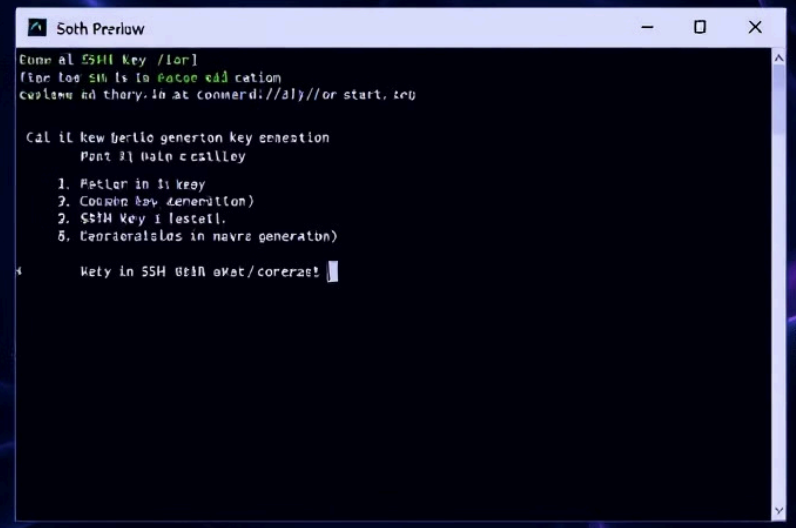
Locate Your SSH Key Files

Your private key is stored at ~/.ssh/id_rsa

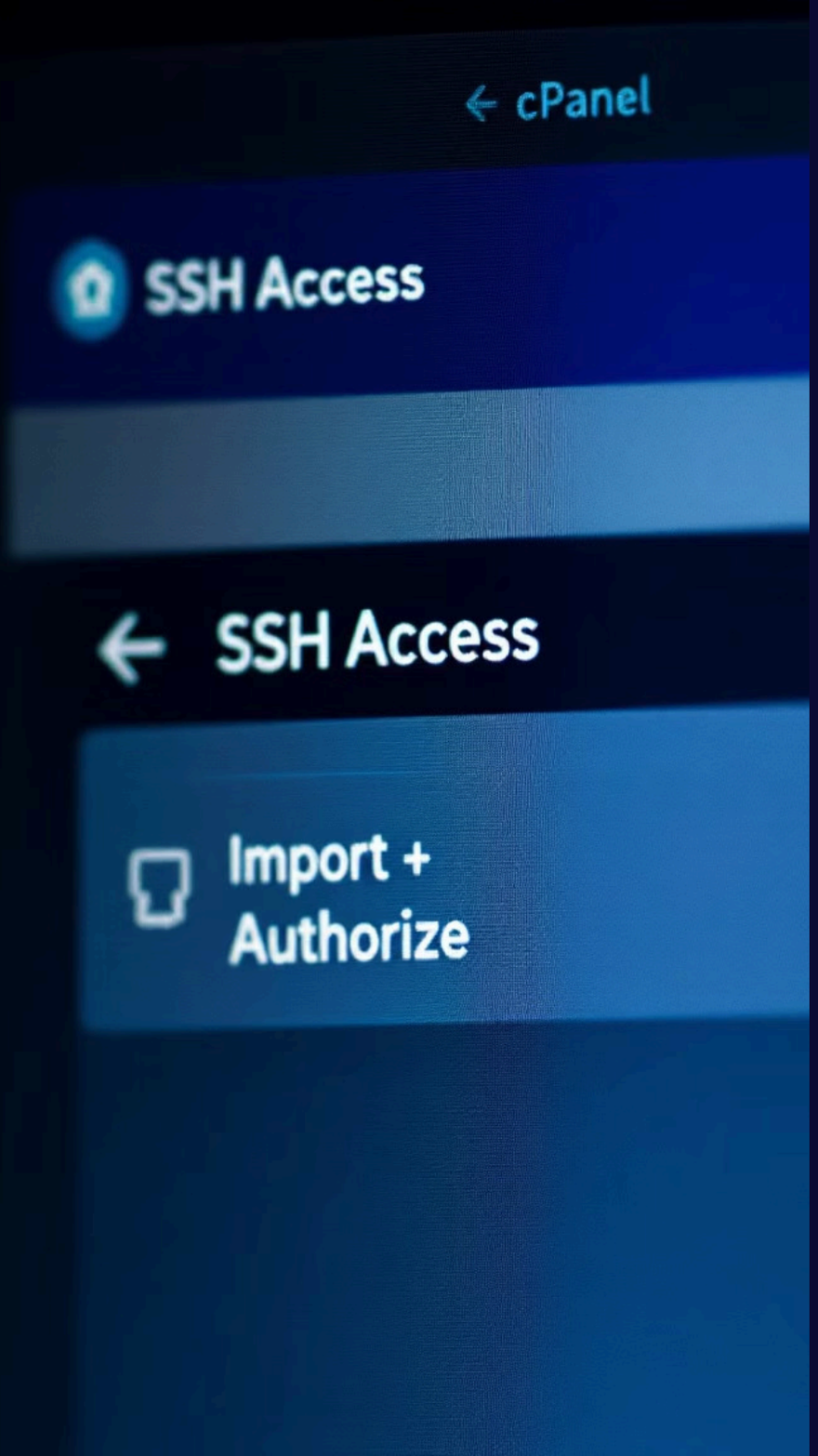
Your public key is stored at ~/.ssh/id_rsa.pub

Keep Keys Secure

Remember that your private key should be kept secure and never shared, while your public key will be used for authentication on remote servers.



Made with Gamma



Setting Up SSH Key on cPanel Server

1

Log in to cPanel

Access your cPanel account using your credentials.

2

Navigate to SSH Access

In the Security section of cPanel, click on SSH Access to manage your SSH keys.

3

Import Your Public Key

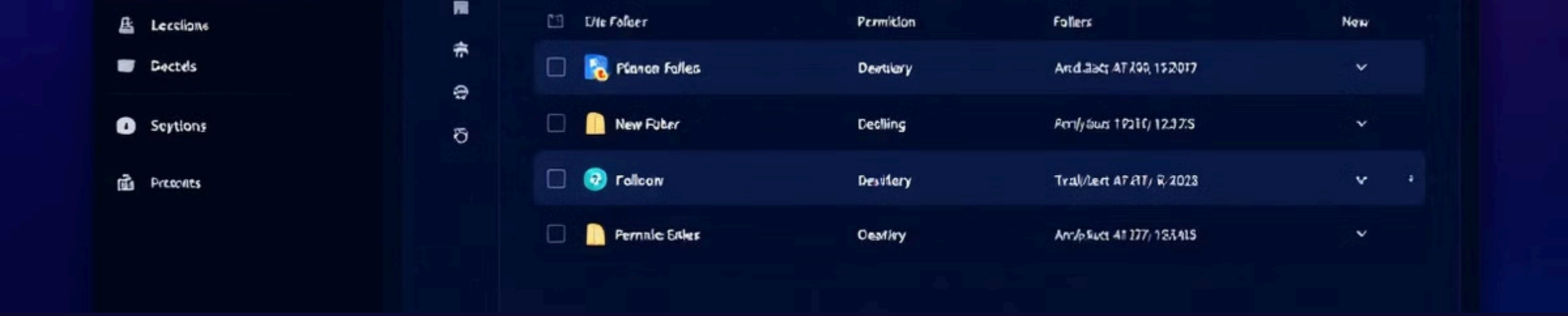
In the Manage SSH Keys section, click Import Key. Run "cat ~/.ssh/id_rsa.pub" in your terminal, copy the output, and paste it into the Public Key field in cPanel.

4

Authorize the Key

After importing, click on Manage and then Authorize to activate the key for use with your account.

Made with Gamma



Setting Up the cPanel Domain and Directory

Access File Manager

In cPanel, navigate to the File Manager tool to manage your server directories and files.

Create Project Directory

Navigate to your home directory (/home/hydottec/) and create a new directory structure for your project, such as FrontendHub/Products/Builder.

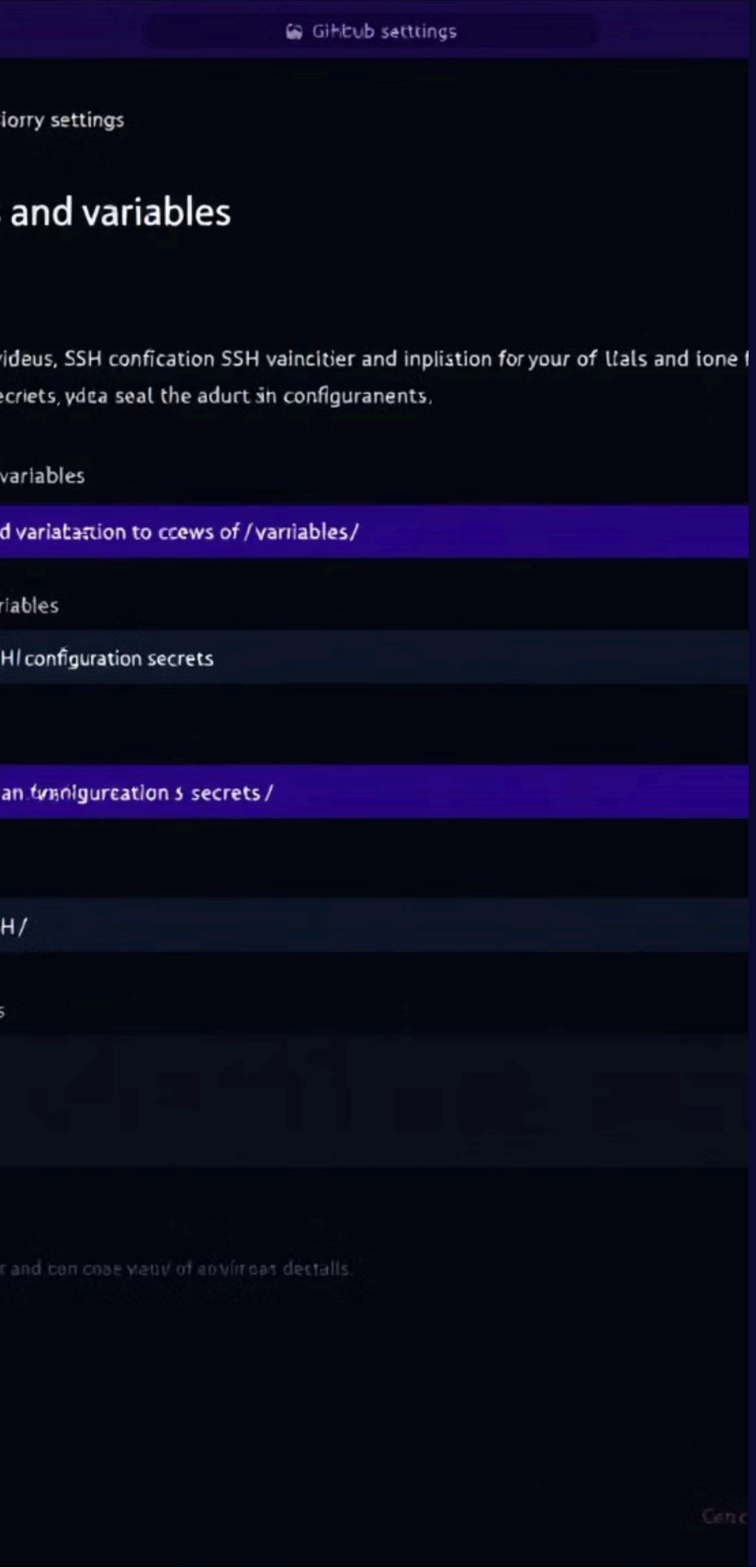
Set Proper Permissions

Ensure the directory has the correct permissions so that the web server can properly serve files from this location.

Create Subdomain

Set up a subdomain (builder.hydottech.com) that points to your project directory to make it accessible via the web.

Made with Gamma



Adding SSH Key to GitHub Repository Secrets

1

Access Repository Settings

Go to your GitHub repository and click on Settings > Secrets and variables > Actions to manage repository secrets.

2

Add Private Key Secret

Click New repository secret. Name it SSH_PRIVATE_KEY and paste the content of your private key (run "cat ~/.ssh/id_rsa" to get it).

3

Add Server Details

Create additional secrets: SSH_HOST (your cPanel server domain, e.g., hydottech.com), SSH_USER (your cPanel username, e.g., hydottec), and DEPLOY_DIR (the deployment path, e.g., /home/hydottec/public_html/FrontendHub/Products/Builder).

Made with Gamma

Configuring the GitHub Actions Workflow

Create Workflow Directory

In your repository, create a directory structure .github/workflows to store your workflow configuration files.

Set Branch Trigger

Configure the workflow to trigger on pushes to the Solomon branch, ensuring automatic deployment when changes are made.

Create Workflow File

Inside the workflows directory, create a file named main.yml that will contain your deployment workflow configuration.

Configure Deployment Steps

Add the workflow configuration that handles checking out code, setting up SSH access using your private key, and deploying files via rsync to your cPanel server.

Made with Gamma

Testing and Verifying the Deployment

git

Push Changes

Make changes to your project and push them to the Solomon branch of your GitHub repository to trigger the deployment workflow.

Check Workflow Logs

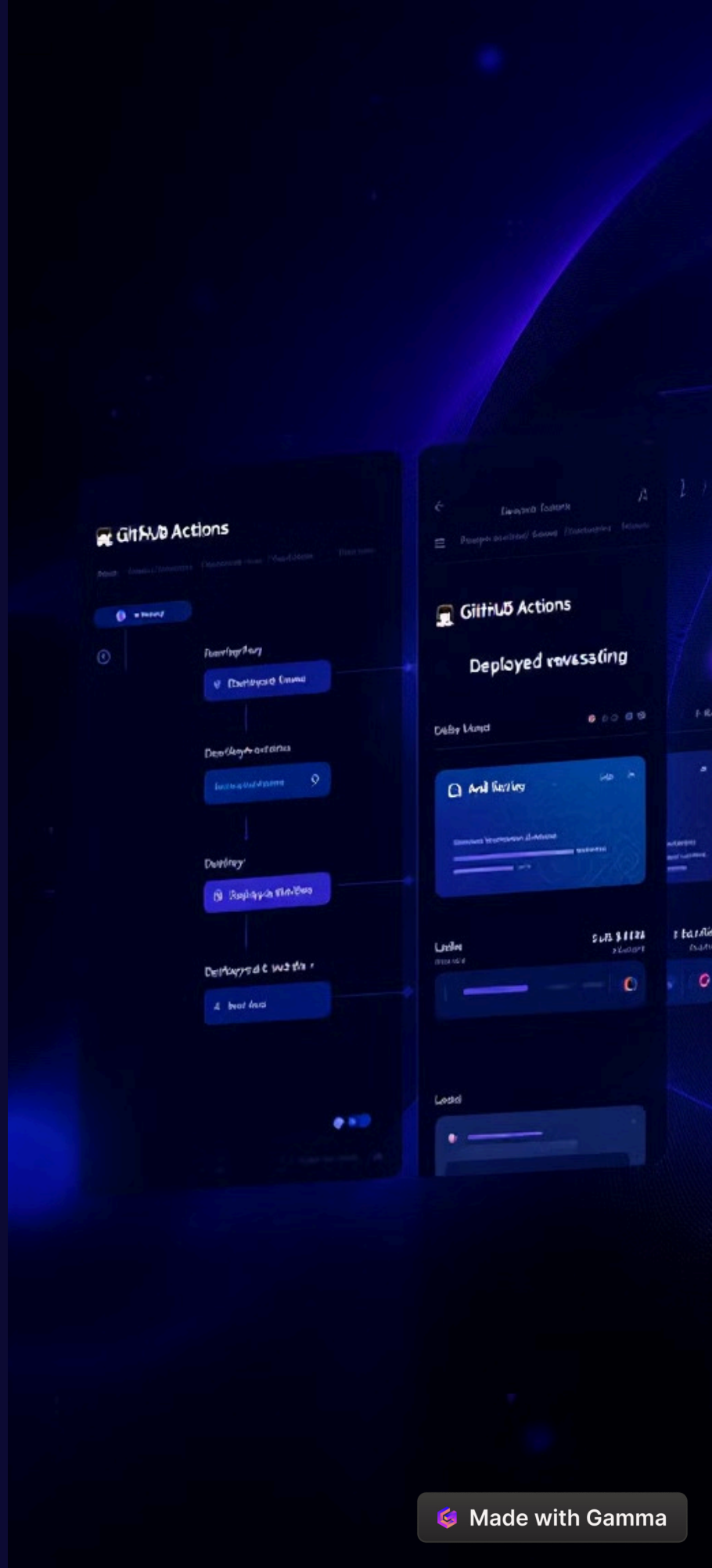
Go to your GitHub repository's Actions tab to monitor the deployment process and check for any errors in the workflow execution logs.

Verify Server Files

After the workflow completes, check your cPanel server's deployment directory to confirm that the files have been properly transferred and updated.

Test Website

Visit your website or application URL to verify that the deployed changes are live and functioning as expected.



Made with Gamma

Configuration Summary

Component	Details
GitHub Secrets	SSH_PRIVATE_KEY: Private SSH key for secure access SSH_HOST: cPanel server domain (hydottech.com) SSH_USER: cPanel username (hydottec) DEPLOY_DIR: Deployment path on server
GitHub Branch	Solomon (deployment trigger branch)
cPanel SSH Port	1219 (non-standard port for enhanced security)
Deployment Method	rsync over SSH (secure file synchronization)

With this automated deployment setup, your project will be automatically deployed to your cPanel server whenever changes are pushed to the Solomon branch, streamlining your development workflow and ensuring your production environment stays up to date.

Made with Gamma