Run SSH commands

Preparations — Generate SSH Key

Before we take a look at the actual GitHub action we're going to generate an SSH key:

```
ssh-keygen -m PEM -t rsa -b 4096 -C "you@your_mail.tld"
```

Our SSH key is required to be in PEM format, hence the -m PEM flag.

Preparations — Copy SSH Key

To log into our machine using our SSH private key we need to add our public key to the machine's authorized_keys.

We'll do so using ssh-copy-id:

```
ssh-copy-id -i /path/to/your/key youruser@yourhost
```

This will copy the public key of your key pair to the remote host and add it to its list of authorized_keys.

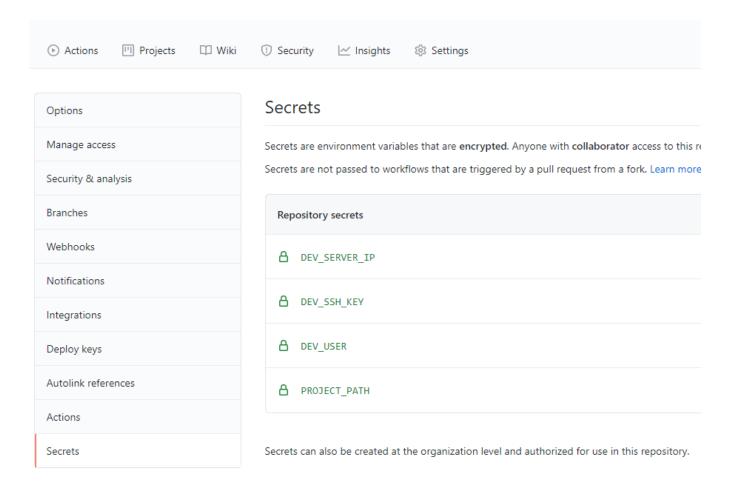
Or if you are already on on the server via terminal, you just append the new public key to the authorized_keys file.

ssh-copy-id -i /path/to/your/key youruser@yourhostcat <your_public_key_file> >> ~/.ssh/authorized_keys



Note the double > without the double > the existing contents of authorized_keys will be over-written (nuked!) and that may not be desirable

Add the SSH_USER, SSH_HOST and private key to Github repository secrets



Create the workflow file in .github/workflows

```
name: CI
on: [push, pull_request]
jobs:
 # test:
 deploy:
   name: "Deploy to staging"
   runs-on: ubuntu-latest
   if: github.event_name == 'push' && github.ref == 'refs/heads/master'
    # needs: test
    steps:
     - name: Configure SSH
       run:
         mkdir -p ~/.ssh/
         echo "$SSH_KEY" > ~/.ssh/staging.key
         chmod 600 ~/.ssh/staging.key
         cat >>~/.ssh/config <<END
         Host staging
           HostName $SSH_HOST
           User $SSH_USER
           IdentityFile ~/.ssh/staging.key
           StrictHostKeyChecking no
         END
        env:
          SSH_USER: ${{ secrets.STAGING_SSH_USER }}
          SSH_KEY: ${{ secrets.STAGING_SSH_KEY }}
         SSH_HOST: ${{ secrets.STAGING_SSH_HOST }}
- name: Stop the server
       run: ssh staging 'sudo systemctl stop my-application'
- name: Check out the source
       run: ssh staging 'cd my-application && git fetch && git reset --hard origin/master'
- name: Start the server
       if: ${{ always() }}
       run: ssh staging 'sudo systemctl start my-application'
```

Related articles

https://dev.to/s1hofmann/github-actions-ssh-deploy-setup-I7h

https://blog.benoitblanchon.fr/github-action-run-ssh-commands/