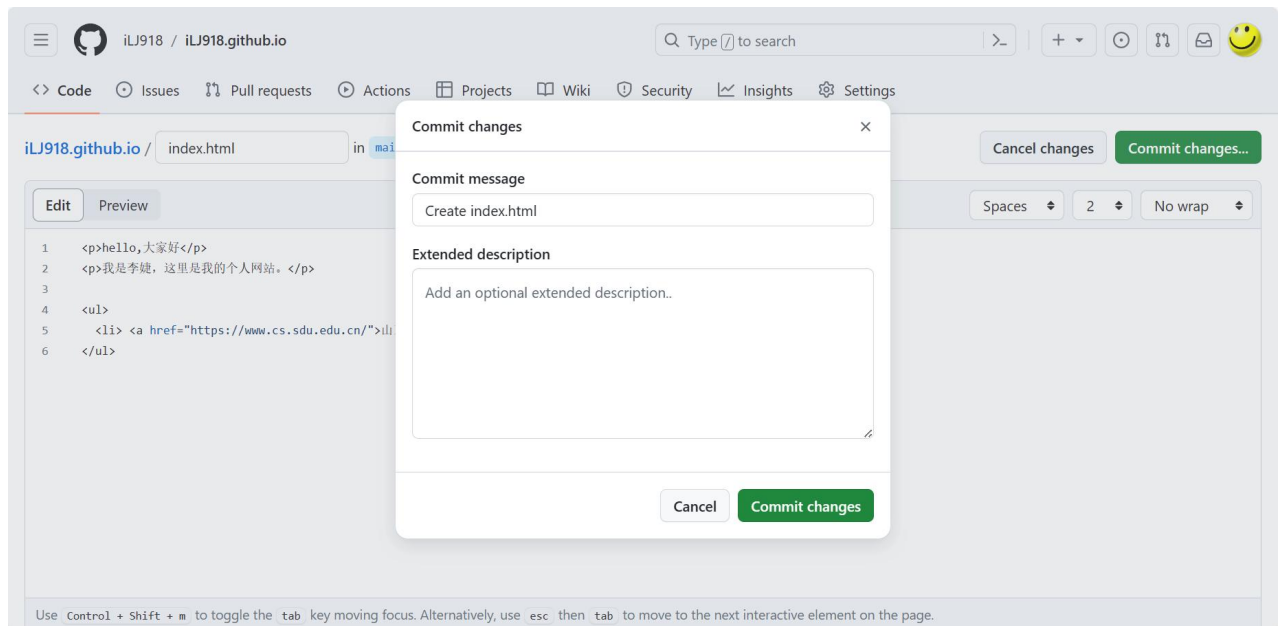
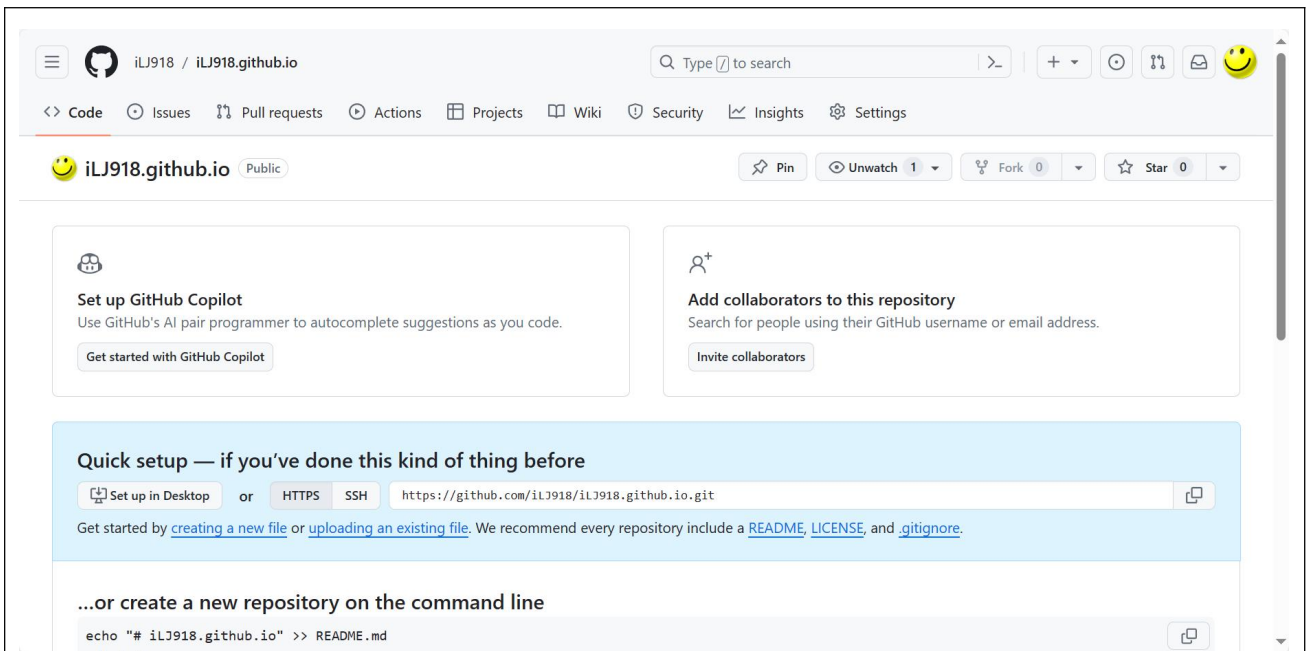


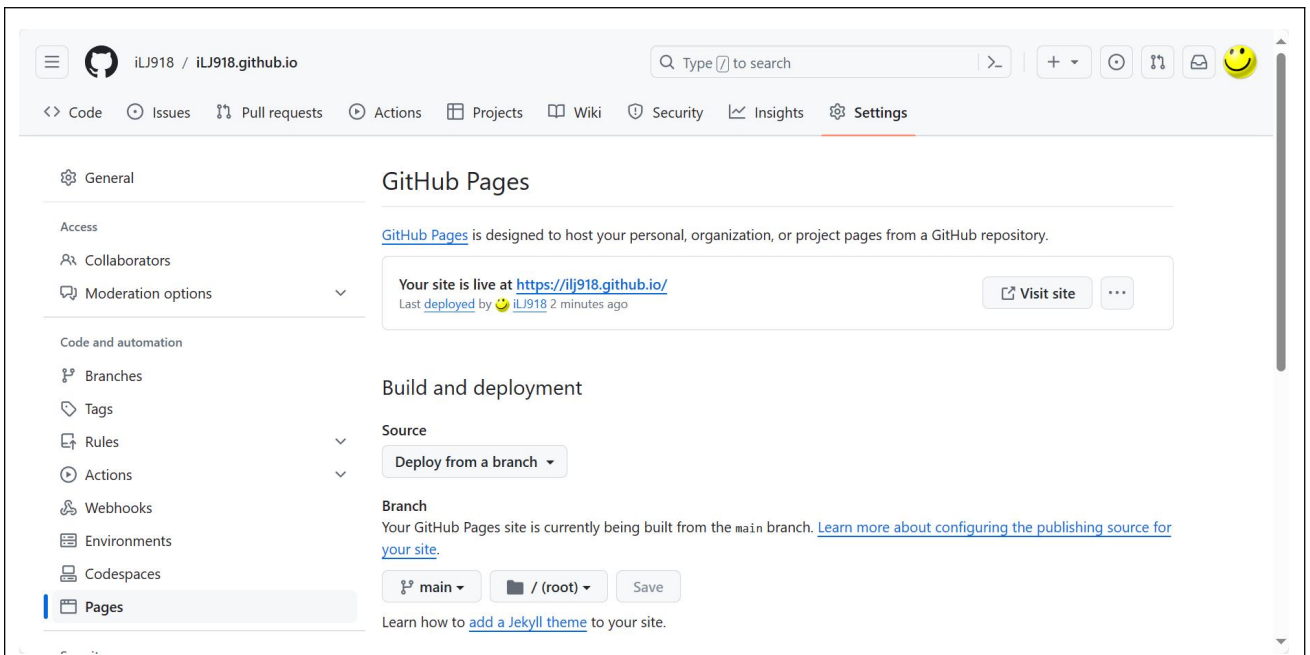
山东大学 计算机科学与技术 学院

云计算技术 课程实验报告

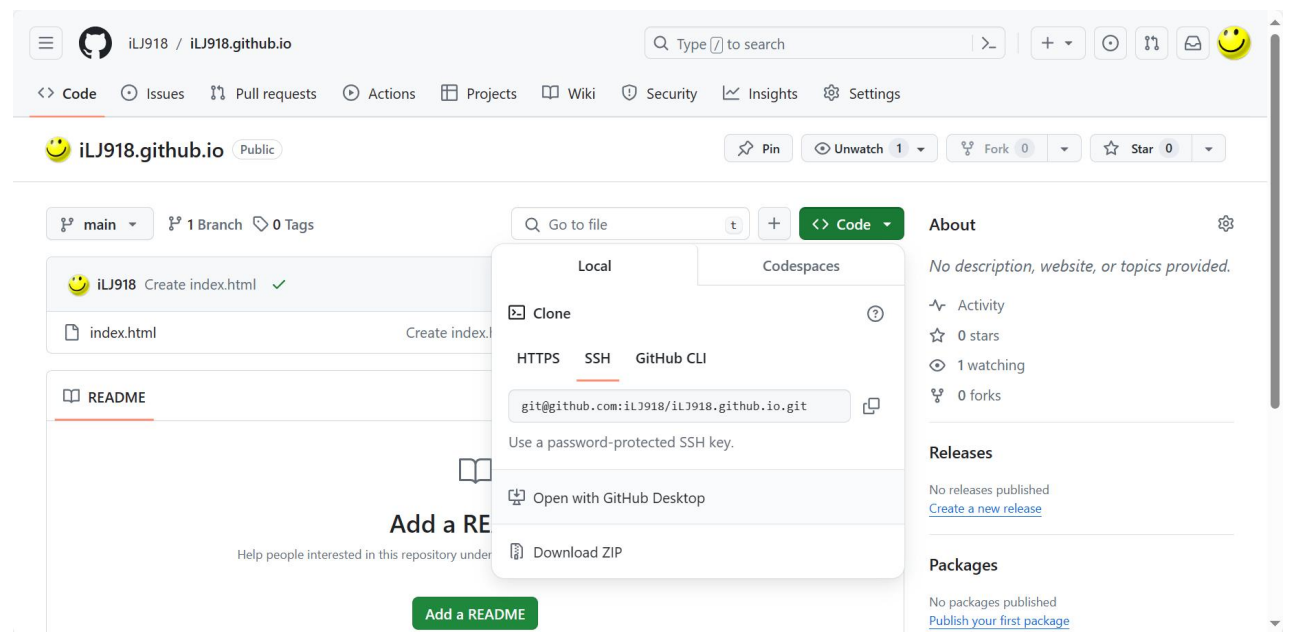
|  |                |            |
|--|----------------|------------|
| 学号：202100130051  | 姓名：李婕          | 班级：21 级数据班 |
| 实验题目：利用主流云平台搭建个人博客或网站  |                |            |
| 实验学时：2   | 实验日期：2024-3-22 |            |
| <p>实验目的：熟悉使用主流云平台并搭建个人博客或者网站。</p> <p>具体包括：</p> <p>参考方案：基于主流云平台，设计、实现个人博客或者网站的搭建，撰写实验报告（附带网站链接并可以访问），并在网站上呈现此次实验报告。</p>   |                |            |
| <p>硬件环境：</p> <p>联网的计算机一台</p>   |                |            |
| <p>软件环境：</p> <p>Windows or Linux</p>   |                |            |
| <p>实验步骤与内容：</p> <p>网站链接：iLJ918.github.io</p> <p><b>一. GitHub 账号并且创建仓库</b></p> <p>①首先创建 github 库，库名是：iLJ918.github.io</p> |                |            |



Github 个人博客的仓库都已经创建完毕，点击 setting 里的 pages, 就可以查看个人网址 <https://ilj918.github.io/> 的发布。



复制下面这段仓库的 ssh 地址，后面配置时会用到



## 二. 本地配置安装 Hexo

首先在磁盘中（我在 D 盘）创建一个用来存放 Github 本地仓库文件的目录 blog，选中创建的目录(文件夹)右键选择使用 Git Bash Here 打开 Git 命令窗口。输入命令：`git config --global --add safe.directory D:/blog`

```
Hp@DESKTOP-F6ETHMI MINGW64 /d/blog
$ git config --global --add safe.directory D:/blog

Hp@DESKTOP-F6ETHMI MINGW64 /d/blog (master)
$ git remote add origin https://github.com/iLJ918/iLJ918.github.io.git
```

正式开始安装 hexo

输入命令: `cnpm install -g hexo-cli`

```
Hp@DESKTOP-F6ETHMI MINGW64 /d/blog (master)
$ cnpm install -g hexo-cli
Downloading hexo-cli to D:\nodejs\node_global\node_modules\hexo-cli_tmp
Copying D:\nodejs\node_global\node_modules\hexo-cli_tmp\.store\hexo-cli@4.3.1\nod
e_modules\hexo-cli to D:\nodejs\node_global\node_modules\hexo-cli
Installing hexo-cli's dependencies to D:\nodejs\node_global\node_modules\hexo-cli
\node_modules
[1/10] minimist@^1.2.5 installed at node_modules\.store\minimist@1.2.8\node_modu
les\minimist
[2/10] picocolors@^1.0.0 installed at node_modules\.store\picocolors@1.0.0\node_
modules\picocolors
[3/10] bluebird@^3.7.2 installed at node_modules\.store\bluebird@3.7.2\node_modu
les\bluebird
[4/10] command-exists@^1.2.9 installed at node_modules\.store\command-exists@1.2
.9\node_modules\command-exists
[5/10] hexo-log@^4.0.1 installed at node_modules\.store\hexo-log@4.1.0\node_modu
les\hexo-log
[6/10] abbrev@^2.0.0 installed at node_modules\.store\abbrev@2.0.0\node_modules\
abbrev
[7/10] tildify@^2.0.0 installed at node_modules\.store\tildify@2.0.0\node_module
s\tildify
[8/10] resolve@^1.20.0 installed at node_modules\.store\resolve@1.22.8\node_modu
les\resolve
[9/10] hexo-fs@^4.1.1 installed at node_modules\.store\hexo-fs@4.1.1\node_module
s\hexo-fs
[10/10] hexo-util@^2.5.0 installed at node_modules\.store\hexo-util@2.7.0\node_m
odules\hexo-util
All packages installed (53 packages installed from npm registry, used 3s(network
3s), speed 656.64KB/s, json 27(150.04KB), tarball 1.5MB, manifests cache hit 26
, etag hit 26 / miss 6)
[hexo-cli@4.3.1] link D:\nodejs\node_global\hexo@ -> D:\nodejs\node_global\node_mo
dules\hexo-cli\bin\hexo
```

初始化 Hexo

输入命令: `hexo init`

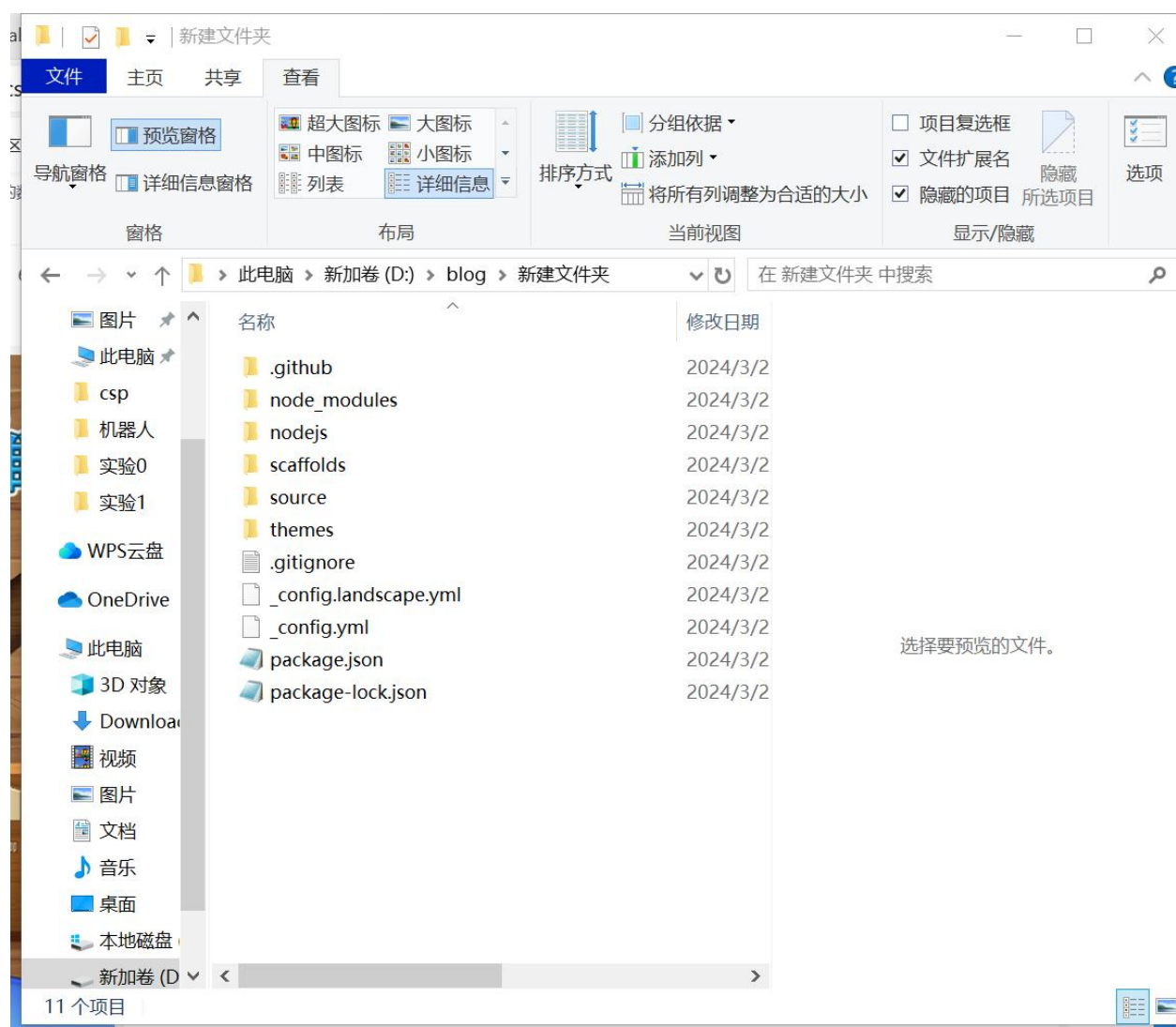
```

Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ hexo init
INFO Cloning hexo-starter https://github.com/hexojs/hexo-starter.git
INFO Install dependencies
npm notice
npm notice New major version of npm available! 9.8.1 -> 10.5.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.5.0
npm notice Run npm install -g npm@10.5.0 to update!
npm notice
INFO Start blogging with Hexo!

Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$

```

(初始化成功后 blog 目录(文件夹)会多出许多文件)





这时输入命令：hexo s，启动本地服务器，用于预览主题

```
Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ hexo init
INFO Cloning hexo-starter https://github.com/hexojs/hexo-starter.git
INFO Install dependencies
npm notice
npm notice New major version of npm available! 9.8.1 -> 10.5.0
npm notice Changelog: https://github.com/npm/cli/releases/tag/v10.5.0
npm notice Run npm install -g npm@10.5.0 to update!
npm notice
INFO Start blogging with Hexo!

Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ hexo s
INFO Validating config
INFO Start processing
INFO Hexo is running at http://localhost:4000/. Press Ctrl+C to stop.
INFO Catch you later
```

### 三. 设置 ssh

#### 1. 生成 sshkey

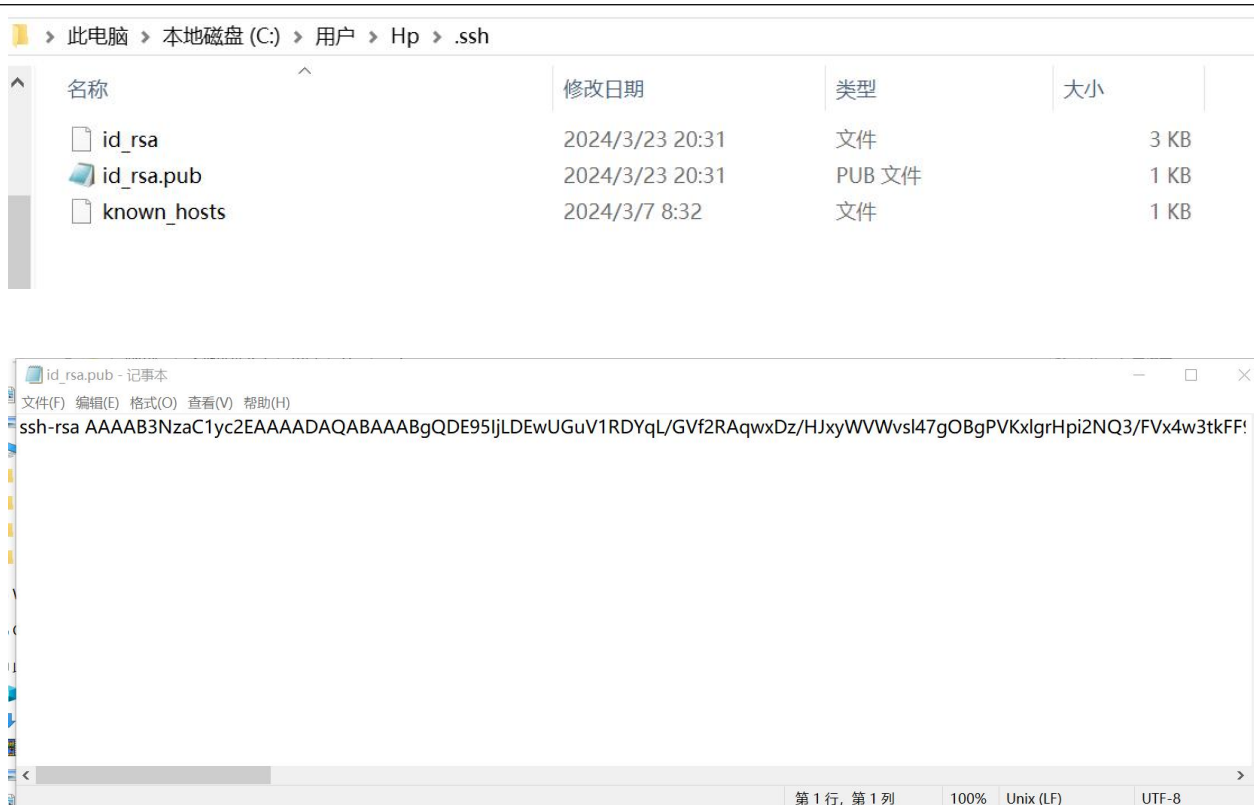
首先在 git 下

输入命令：cd ~/.ssh 进入 .ssh 文件

输入命令：ssh-keygen -t rsa -C '3117137453@qq.com'

```
Hp@DESKTOP-F6ETHMI MINGW64 ~/.ssh
$ ssh-keygen -t rsa -C "3117137453@qq.com"
Generating public/private rsa key pair.
Enter file in which to save the key (/c/Users/Hp/.ssh/id_rsa):
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /c/Users/Hp/.ssh/id_rsa
Your public key has been saved in /c/Users/Hp/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:gme4FwsCfi18Nqu6rGNJnGo93oosYyQF0Fsw5gNr4ZI 3117137453@qq.com
The key's randomart image is:
+---[RSA 3072]-----+
|+O+|.
|o*o..
|E+oo
|+.+.o
|.oo++== S
|.+.+=O+
|= o ..o
|B=.oo.
|BO++o.
+-----[SHA256]-----+
```

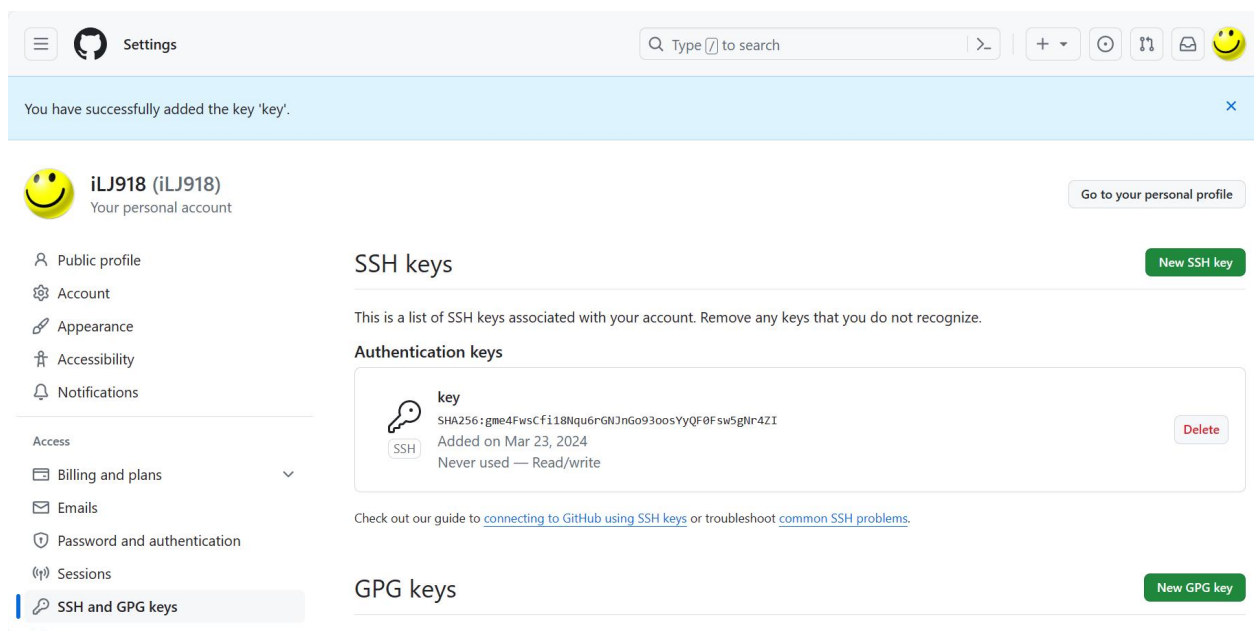
接着去查看D盘目录(此文件夹所在C:\用户\HP目录下),然后在记事本中打开 id\_rsa. put 文件并复制生成的 key



## 2. 将 key 配置到 GitHub 中

在 GitHub 主页的头像下找到 settings, 然后点击 SSH and GPG keys

点击 New SSH key, 将刚刚在 .ssh 目录下所复制的 id\_rsa.pub 文件中的信息复制进 key

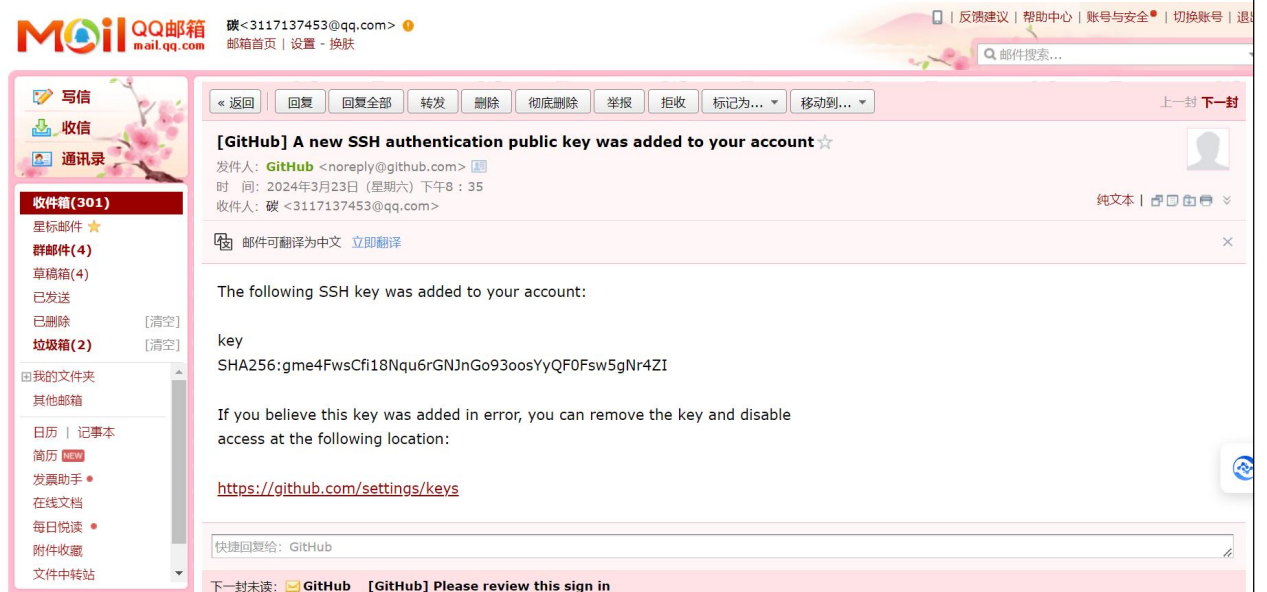


验证:

输入命令 (git) : `ssh -T git@github.com` 并且输入 yes 之后, 行末尾会显示我的用户

名（绑定成功邮箱会收到邮件提醒）

```
Hp@DESKTOP-F6ETHMI MINGW64 ~/.ssh
$ ssh -T git@github.com
The authenticity of host 'github.com (20.205.243.166)' can't be established.
ED25519 key fingerprint is SHA256:+DiY3wvV6TuJJhpZisF/zLDA0zPMSvHdkr4UvCOqU.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'github.com' (ED25519) to the list of known hosts.
Enter passphrase for key '/c/Users/Hp/.ssh/id_rsa':
Hi iLJ918! You've successfully authenticated, but GitHub does not provide shell
access.
```



接着在本地绑定与 Github 的用户名和邮箱（git）

输入命令：git config --global user.name “iLJ918”

输入命令：git config --global user.email “3117137453@qq.com”

```
Hp@DESKTOP-F6ETHMI MINGW64 ~/.ssh
$ git config --global user.name "iLJ918"

Hp@DESKTOP-F6ETHMI MINGW64 ~/.ssh
$ git config --global user.email "3117137453@qq.com"

Hp@DESKTOP-F6ETHMI MINGW64 ~/.ssh
$
```

#### 四. 上传博客

首先找到之前创建仓库生成的 Github 仓库 SSH 地址, 然后打开 blog 文件夹下的\_config.yml



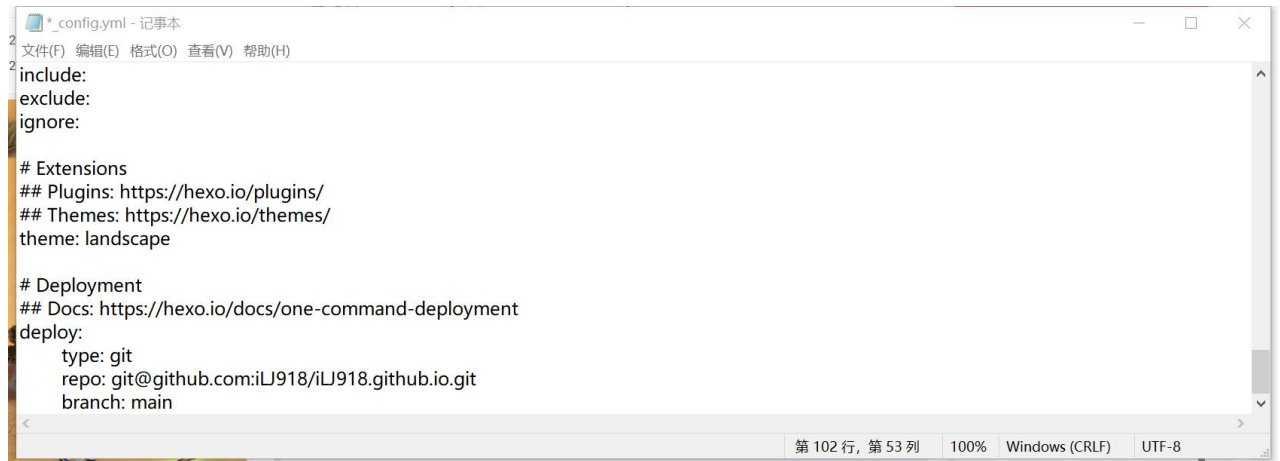
，然后将文章末尾改为以下格式：

deploy:

type: git

repo: git@github.com:iLJ918/iLJ918.github.io.git

branch: main



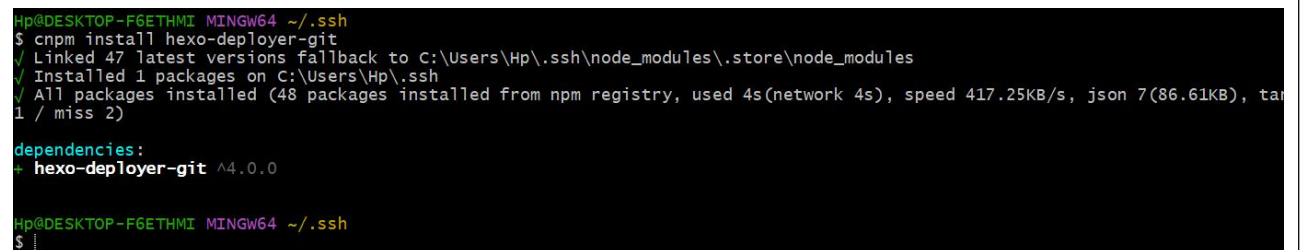
```
*_config.yml - 记事本
文件(F) 编辑(E) 格式(O) 查看(V) 帮助(H)

include:
exclude:
ignore:

# Extensions
## Plugins: https://hexo.io/plugins/
## Themes: https://hexo.io/themes/
theme: landscape

# Deployment
## Docs: https://hexo.io/docs/one-command-deployment
deploy:
  type: git
  repo: git@github.com:iLJ918/iLJ918.github.io.git
  branch: main
```

接着输入命令安装一个上传工具：cnpm install hexo-deployer-git



```
Hp@DESKTOP-F6ETHMI MINGW64 ~/.ssh
$ cnpm install hexo-deployer-git
√ Linked 47 latest versions fallback to C:\Users\Hp\.ssh\node_modules\.store\node_modules
√ Installed 1 packages on C:\Users\Hp\.ssh
√ All packages installed (48 packages installed from npm registry, used 4s(network 4s), speed 417.25KB/s, json 7(86.61KB), tar 1 / miss 2)

dependencies:
+ hexo-deployer-git ^4.0.0

Hp@DESKTOP-F6ETHMI MINGW64 ~/.ssh
$ |
```

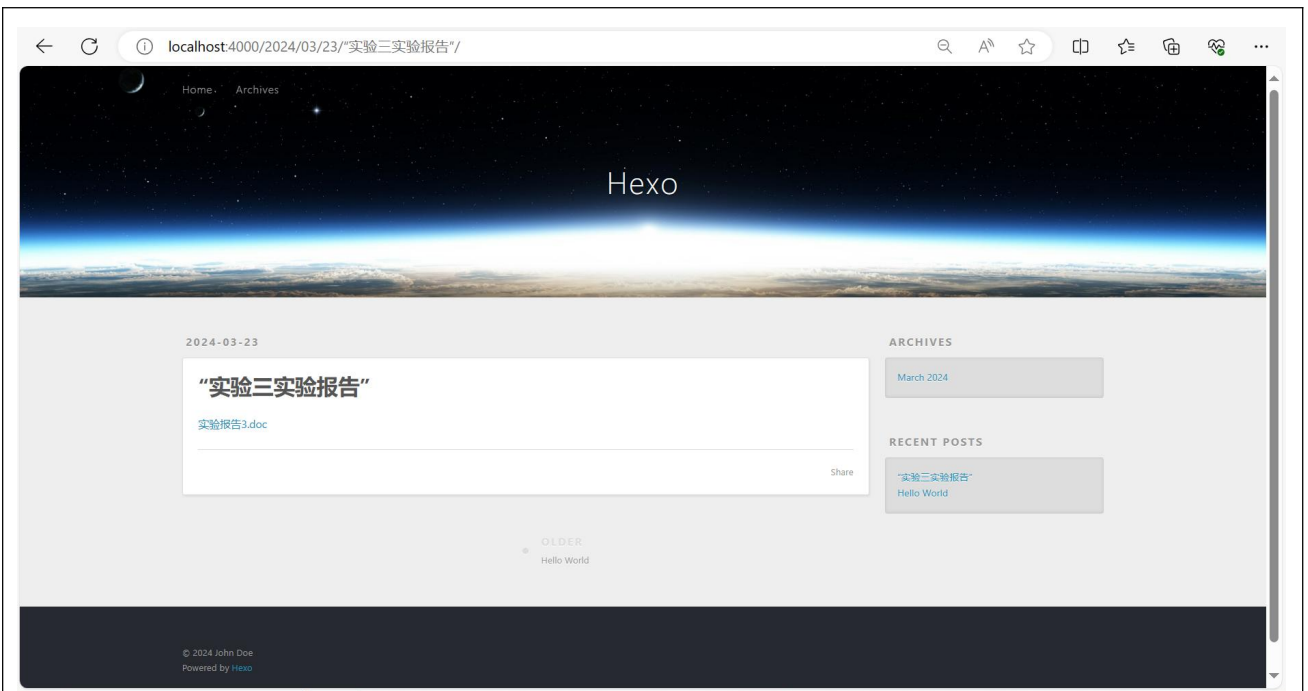
输入命令：hexo new “实验三实验报告”



```
Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ hexo new “实验三实验报告”
INFO Validating config
INFO Created: D:\blog\新建文件夹\source\_posts\“实验三实验报告”.md

Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ |
```

然后根据返回的地址即可找到创建的文件位置，使用编辑器打开编辑（vscode 或者 typora）预览，输入命令：hexo s



确认无误后先生成一遍文件，输入命令：hexo g

```
MINGW64:/d/blog/新建文件夹
INFO Farewell

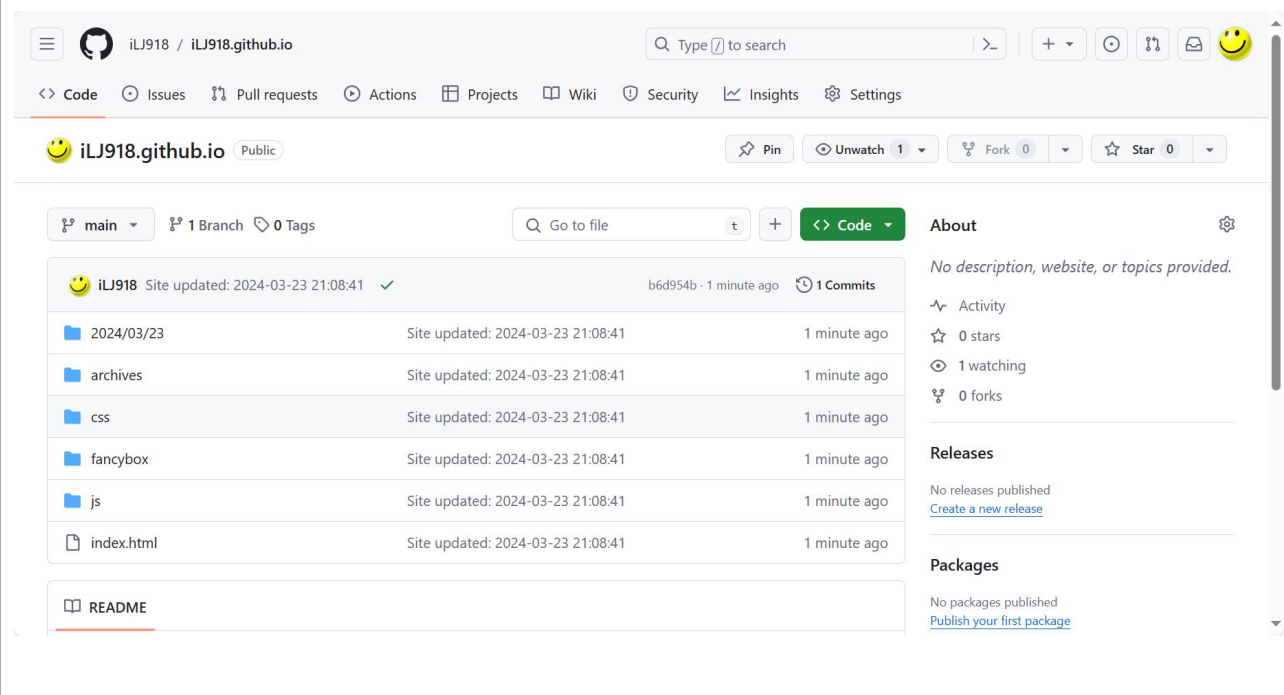
Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ hexo g
INFO Validating config
INFO Start processing
INFO Files loaded in 69 ms
INFO Generated: archives/index.html
INFO Generated: index.html
INFO Generated: archives/2024/03/index.html
INFO Generated: archives/2024/index.html
INFO Generated: fancybox/jquery.fancybox.min.css
INFO Generated: js/script.js
INFO Generated: css/style.css
INFO Generated: js/jquery-3.6.4.min.js
INFO Generated: fancybox/jquery.fancybox.min.js
INFO Generated: css/images/banner.jpg
INFO Generated: 2024/03/23/hello-world/index.html
INFO Generated: 2024/03/23/“实验三实验报告”/index.html
INFO 12 files generated in 208 ms

Hp@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$
```

之后即可部署到 GitHub，输入命令：hexo d

```
HP@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ hexo d
INFO Validating config
INFO Deploying: git
INFO Clearing .deploy_git folder...
INFO Copying files from public folder...
INFO Copying files from extend dirs...
warning: in the working copy of '2024/03/23/hello-world/index.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of '2024/03/23/“实验三-实验报告”/index.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'archives/2024/03/index.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'archives/2024/index.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'css/style.css', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'fancybox/jquery.fancybox.min.js', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'index.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'js/jquery-3.6.4.min.js', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'js/script.js', LF will be replaced by CRLF the next time Git touches it
[master (root-commit) b6d954b] Site updated: 2024-03-23 21:08:41
12 files changed, 2802 insertions(+)
create mode 100644 2024/03/23/hello-world/index.html
create mode 100644 "2024/03/23/“实验三-实验报告”/index.html"
create mode 100644 archives/2024/03/index.html
create mode 100644 archives/2024/index.html
create mode 100644 css/images/banner.jpg
create mode 100644 css/style.css
create mode 100644 fancybox/jquery.fancybox.min.css
create mode 100644 fancybox/jquery.fancybox.min.js
create mode 100644 index.html
create mode 100644 js/jquery-3.6.4.min.js
create mode 100644 js/script.js
Enter passphrase for key '/c/Users/HP/.ssh/id_rsa':
Enumerating objects: 26, done.
Counting objects: 100% (26/26), done.
Delta compression using up to 8 threads
Compressing objects: 100% (20/20), done.
Writing objects: 100% (26/26), 278.60 KiB | 812.00 KiB/s, done.
Total 26 (delta 5), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (5/5), done.
To github.com:iLJ918/iLJ918.github.io.git
+ a7532d6..b6d954b HEAD -> main (forced update)
branch 'master' set up to track 'git@github.com:iLJ918/iLJ918.github.io.git/main'.
INFO Deploy done: git
HP@DESKTOP-F6ETHMI MINGW64 /d/blog/新建文件夹
$ |
```

部署之后可发现 GitHub 仓库中多了文件，此时浏览器输入：`iLJ918.github.io` 就可以访问博客了。



结论分析与体会：

基于 github，我设计实现了个人博客的搭建，深刻体会到了云平台的强大和便利。利用云平台提供的数据库、存储、CDN 等服务，我能够轻松地实现数据的存储和管理，以及网站内容的加速和分发。我相信在未来的实践中，我可以进一步发挥云平台的优势，打造出更加优秀和创新的个人博客或网站，为点击观看的用户提供更好的服务和体验。