# 系统开发工具基础实验报告



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# 1 实验练习内容

## 1.1 Latex 的练习和使用

学会 Latex 的基本运用, 了解基本操作, 完成 2 个练习题目和 10 个实例的任务

## 1.2 Git 的基本运用

阅读参考资料了解 git 的用处和原理学会 git 基本操作完成 2 个练习题目和 10 个实例

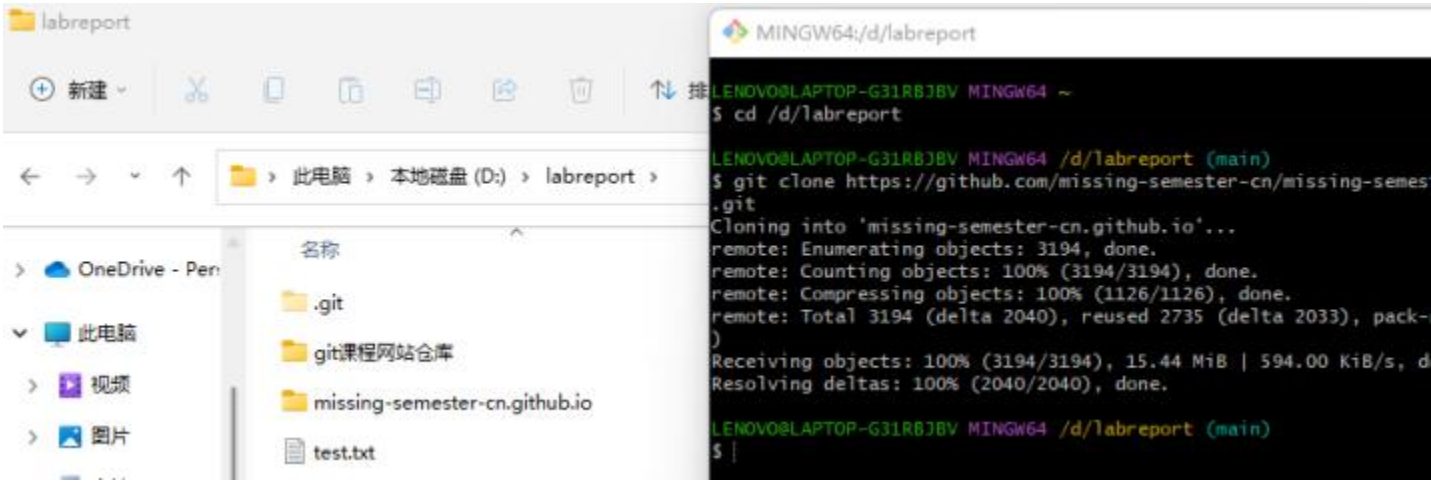
# 2　实验结果展示

## 2.1　Git 的基本运用

### 2.1.1　十个实例

1. 克隆仓库到本地

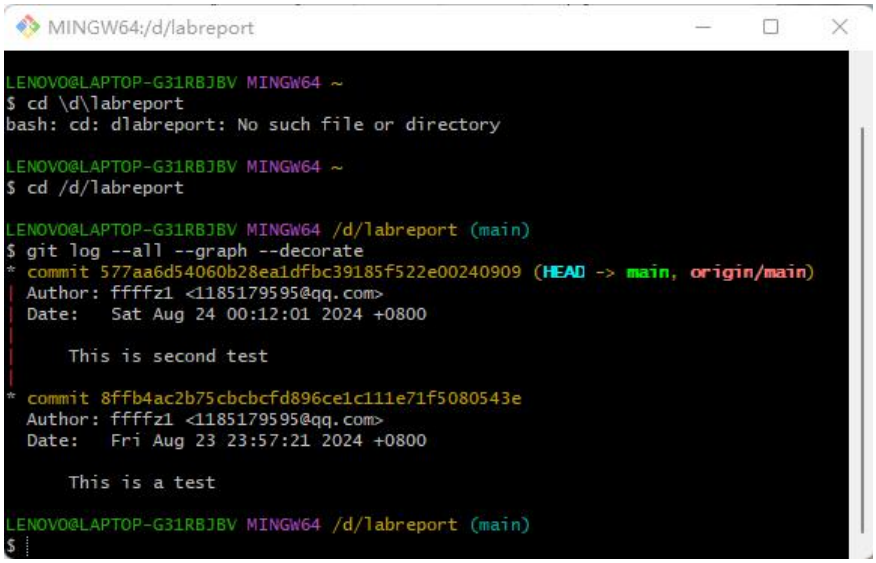
git clone https://github.com/missing-semester-cn/missing-semester-cn.github.io.git




2. 使用 git log 查看最后修改某文件的用户
git log -1 – README.md


3. 将版本历史可视化并进行探索

git log --all --graph --decorate

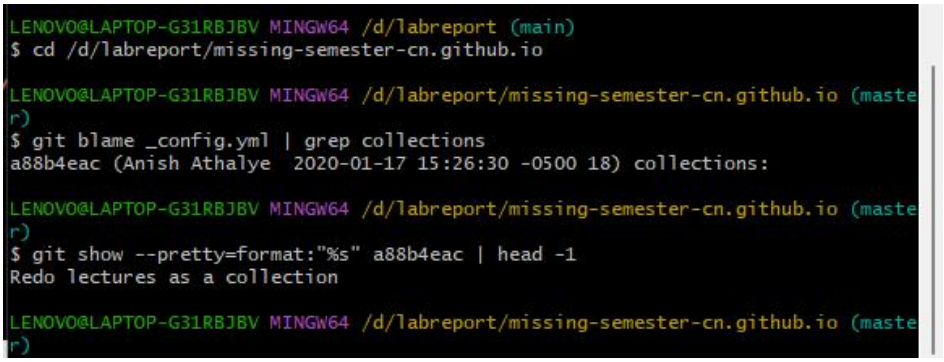


2　实验结果展示

4.查看某一行是谁修改的信息

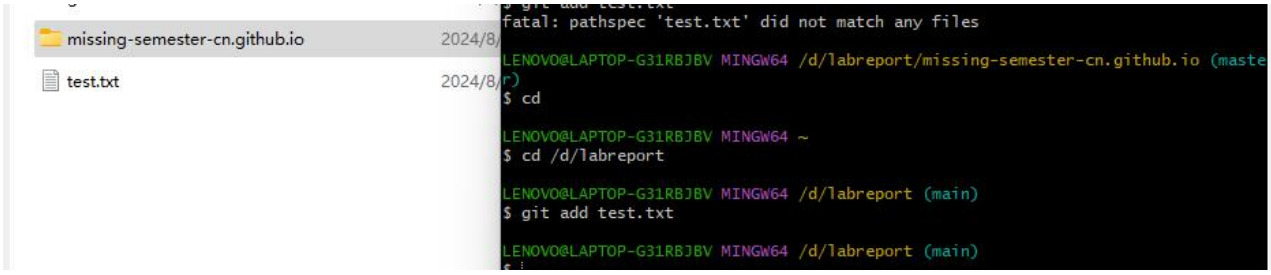
git blame _config.yml | grep collections

git show --pretty=format:"%s" a88b4eac | head -1



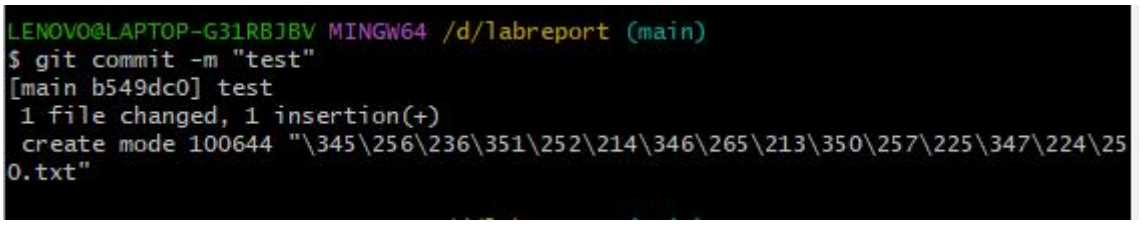

5.将项目添加到暂存区

git add "文件名"



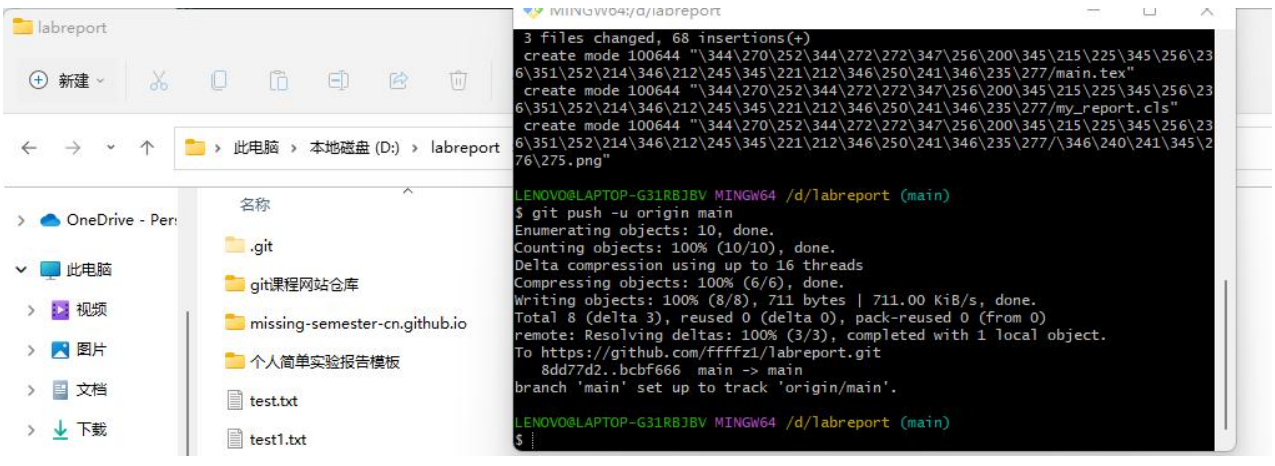

6.将暂存区文件提交到git仓库

git commit -m "注释内容"

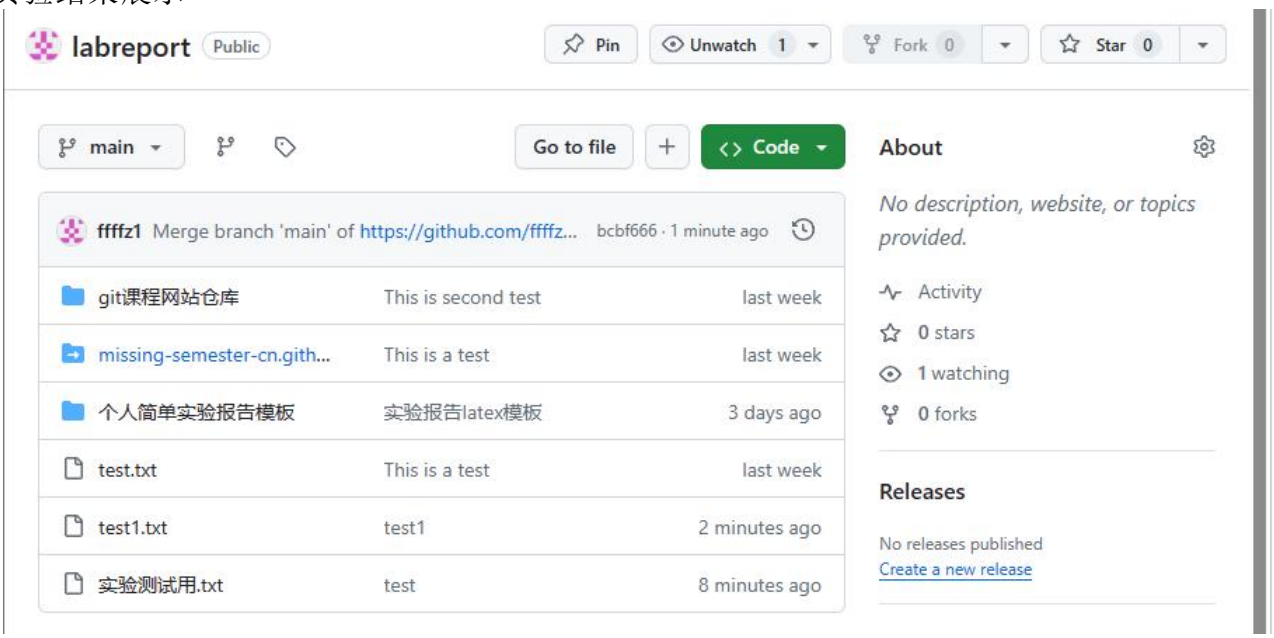



7.将本地git仓库提交到远程仓库

git push -u origin main



2　实验结果展示




8. 清除提交记录

git filter-branch --all

```
LENOVO@LAPTOP-G31RBJBV MINGW64 /d/labreport (main)
$ git filter-branch --all
WARNING: git-filter-branch has a glut of gotchas generating mangled history
         rewrites.  Hit Ctrl-C before proceeding to abort, then use an
         alternative filtering tool such as 'git filter-repo'
         (https://github.com/newren/git-filter-repo/) instead.  See the
         filter-branch manual page for more details; to squelch this warning,
         set FILTER_BRANCH_SQUELCH_WARNING=1.
Proceeding with filter-branch...
```

9. 显示当前的仓库状态

git status

```
MINGW64:/d/labreport
$ git add test1.txt

LENOVO@LAPTOP-G31RBJBV MINGW64 /d/labreport (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        deleted:    test1.txt

Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        deleted:    "\345\256\236\351\252\214\346\265\213\350\257\225\347\224\25
0.txt"

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        mypassword.txt


LENOVO@LAPTOP-G31RBJBV MINGW64 /d/labreport (main)
$
```

10.　创建全局忽略规则

```
LENOVO@LAPTOP-G31RBJBV MINGW64 /d/labreport (main)
$ git config --global core.excludesfile ~/.gitignore
```

2　实验结果展示

11. 删除文件

```
git rm filename.txt
```

```
LENOVO@LAPTOP-G31RBJBV MINGW64 /d/labreport (main)
$ git rm test.txt
rm 'test.txt'
```

12. 查看远程仓库信息

```
git remote -v
```

```
LENOVO@LAPTOP-G31RBJBV MINGW64 /d/labreport (main)
$ git remote -v
origin  https://github.com/ffffz1/labreport.git (fetch)
origin  https://github.com/ffffz1/labreport.git (push)
```

## 2.1　Latex的练习和使用

### 2.1.1　十个实例

1. 文档类声明

```
\documentclass[12pt]{article}
```

2. 使用引入宏包

```
\usepackage{amsmath}
```

3. 章节和小节

```
\section{Introduction}
\subsection{Background}
```

4. 创建表格

```
\begin{tabular}{c|c}
\hline
\large{姓名}&\large{***} \\
\hline
\large{学号}&\large{***}\\
\hline
\end{tabular}
```

5. 生成下划线

```
\rule{\textwidth}{1pt}
```

6. 插入图片

```
\includegraphics[width=0.5\textwidth]{image.png}
```

7. 添加垂直空白空间

```
\vspace{0.025\textheight}
```

8. 新开一页

```
/newpage
```

2　实验结果展示

9.添加颜色

```
\textcolor{red}{This is red text.}
```

10.创建列表

```
\begin{itemize}
  \item Item 1
  \item Item 2\end{itemize}
```

个人Github地址：　https://github.com/ffffz1/labreport.git

Latex实验报告模板以及该实验报告均已上传

# 3 实验感悟

本节学习了Latex和Git的使用
通过这次实验,我意识到了版本控制对于项目管理的重要性,git可以帮助我们在出错时回滚到之前的版本,并且能够记录我们的每一次提交,同时我意识到Git 强大的分支管理和远程仓库协作功能让我在团队项目中更加高效，可以与队友们无缝协作，同时保持各自的工作进度
对于Latex的感悟,这次实验让我体会到了高质量文档排版的优雅,了解了Latex在文档编辑标准上的地位,这将更有利于防止论文等因格式出错的情况,并且我也通过使用Latex编写了个人的实验报告模板,更让感受到了Latex标准化的魅力
通过这次实验的学习,我学会了使用更多系统开发的基本工具,这对于我将来的团队工作和学习都将提供更多帮助