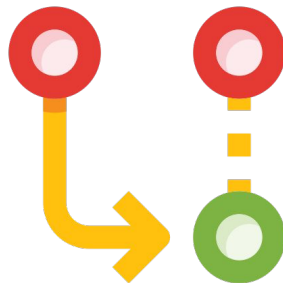


第三章

提交(Commit)



内容大纲

1. 在shengxiao项目中实操一个提交流程(make a commit)
2. 观察Git中的四个区域的变化
3. 介绍两个重要的命令
 - a. 查看工作目录和暂存区状态的命令 ~ git status
 - b. 查看目前已有提交 (commits)的命令 ~ git log

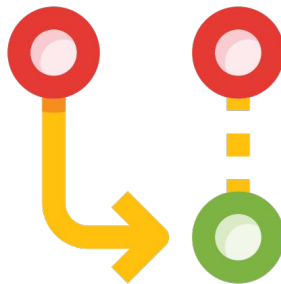


当前项目目录状态



提交(commit)

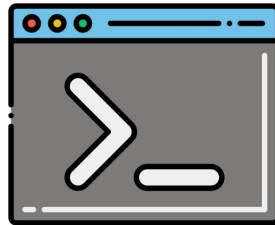
- 为什么要提交
 - 避免工作成果丢失
 - 什么时候提交？
 - 取决于项目类型, 个人/团队, 关键/非关键
 - Git格言: commit early, commit often
- 两步提交流程
 - 将需要提交的文件添加到 暂存区
 - 提交文件+提交消息



命令

- ***git status***

- 展示工作目录和暂存区的状态
- 只读操作



```
shengxiao-bobo — boboweike@bobos-Mac — .hengxiao-bobo — zsh — 80x14
→ shengxiao-bobo git:(main) * git status
On branch main

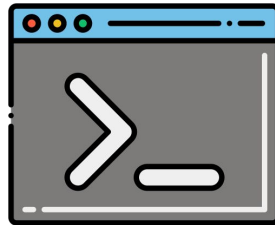
No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    12_shengxiao.txt

nothing added to commit but untracked files present (use "git add" to track)
→ shengxiao-bobo git:(main) * █
```

命令 ~ 将文件添加到暂存区

- ***git add <filename>***
 - 将一个文件添加到暂存区
- ***git add <filename> <filename>...***
 - 将多个文件添加到暂存区
- ***git add -A***
 - 将多个修改(增/删/改)过的文件添加到暂存区, 整个项目
- ***git add .***
 - 将多个修改(增/删/改)过的文件添加到暂存区, 当前目录和子目录



实操～将文件添加到暂存区

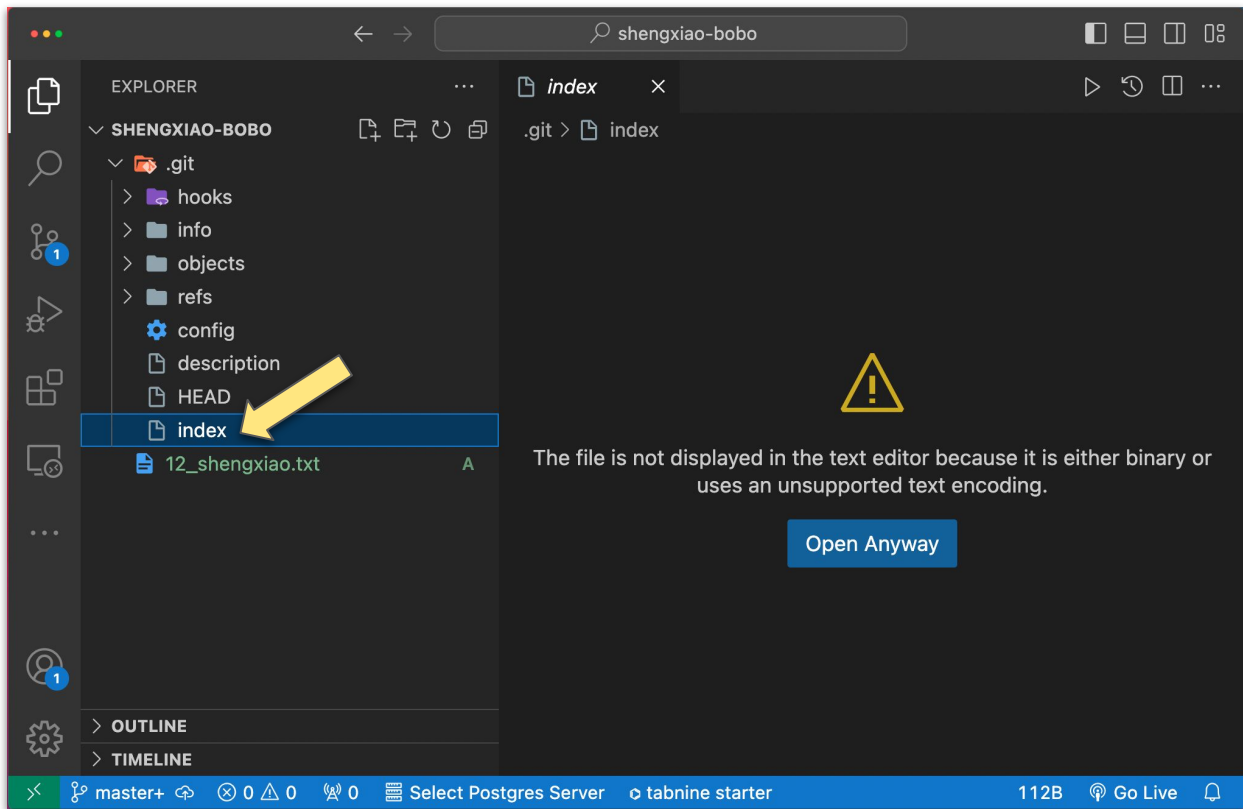
```
shengxiao-bobo — boboweike@bobos-Mac — ..hengxiao-bobo — -zsh — 80x14
→ shengxiao-bobo git:(main) ✕ git add 12_shengxiao.txt
→ shengxiao-bobo git:(main) ✕ git status
On branch main

No commits yet

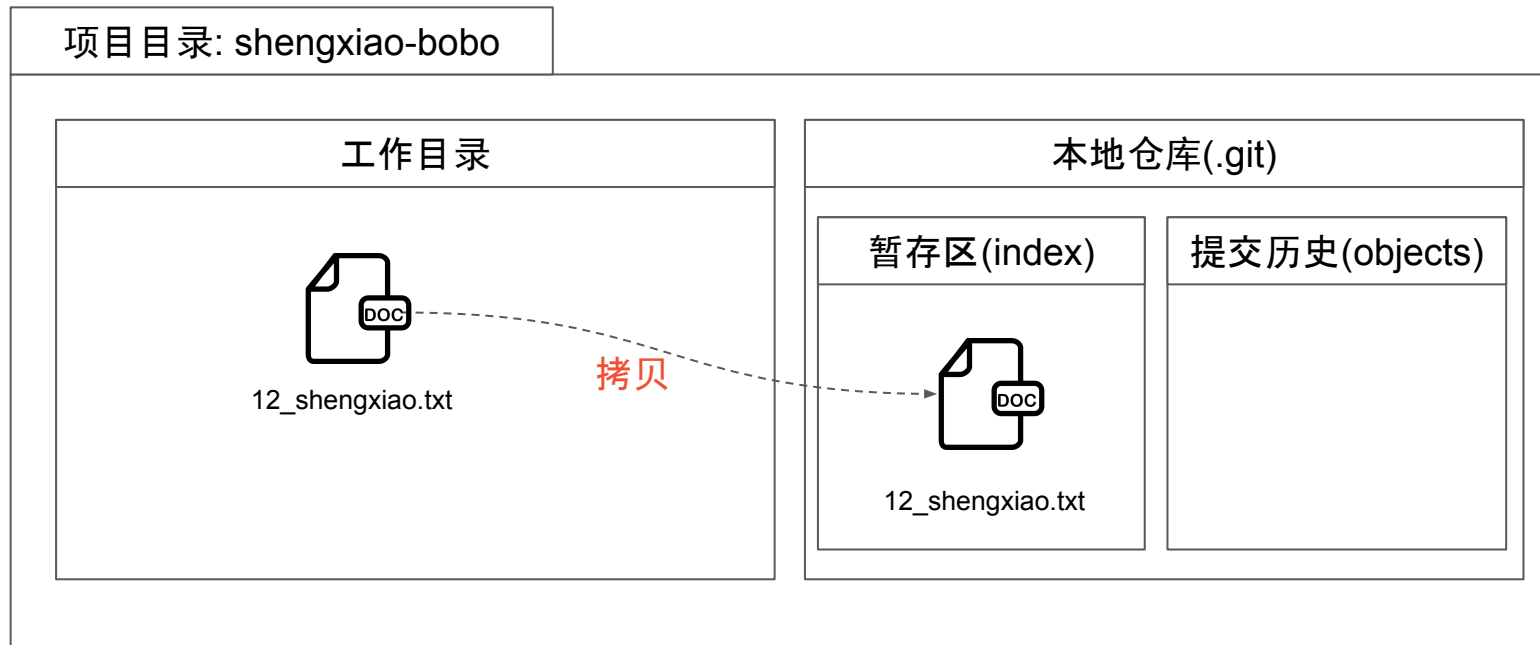
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   12_shengxiao.txt

→ shengxiao-bobo git:(main) ✕
```

新建的index文件表示暂存区



当前项目目录状态



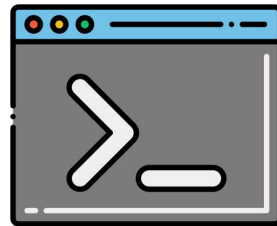
命令 ~ 提交(commit)

- ***git commit -m "<message>"***
 - 创建一个新提交+提交消息

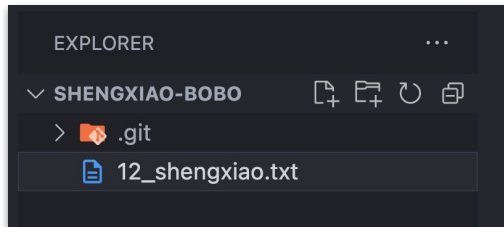
Commit hash的前7个
字符, 具有唯一性



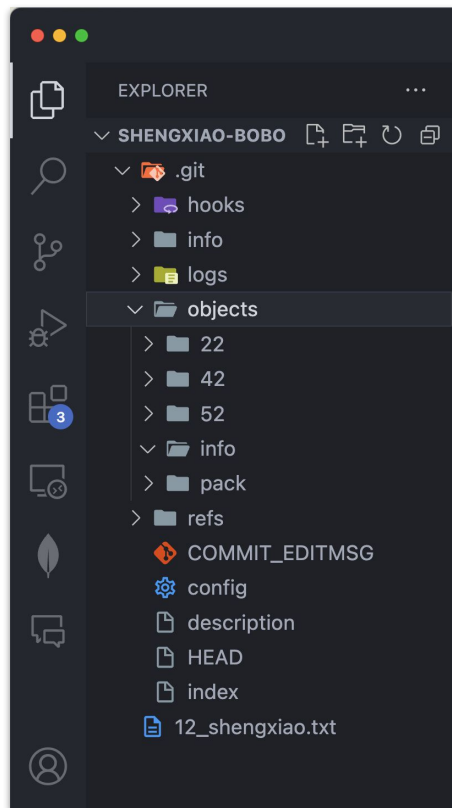
```
shengxiao-bobo — boboweike@bobos-Mac — ..hengxiao-bobo — zsh — 57x6
→ shengxiao-bobo git:(main) ✗ git commit -m "鼠"
[main (root-commit) 52d496d] 鼠
1 file changed, 1 insertion(+)
create mode 100644 12_shengxiao.txt
→ shengxiao-bobo git:(main)
```



```
shengxiao-bobo — boboweike@bobos-Mac — ..hengxiao-bobo — zsh — 57x5
→ shengxiao-bobo git:(main) git status
On branch main
nothing to commit, working tree clean
→ shengxiao-bobo git:(main)
```



objects目录的变化



当前项目目录状态

12_shengxiao.txt现在是一个跟踪的文件(tracked file)

项目目录: shengxiao-bobo

工作目录



12_shengxiao.txt

本地仓库(.git)

暂存区(index)

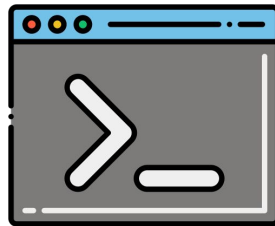


12_shengxiao.txt

提交历史(objects)



命令 ~ 查看提交列表



- **git log**

- 按逆向时间序展示一系列提交信息
- 包括：
 - Commit Hash
 - 作者名称和 email地址
 - 提交的日期时间
 - 提交消息
 - HEAD(下节课)

A screenshot of a terminal window titled "shengxiao-bobo - git log - git -- less - git log - 63x9". The output shows a commit with hash 52d496d246c90b0ba13a1b25b5060af2f73dedad, pointing to HEAD and main. The author is bobo <bobo@boboweike.cn> and the date is Sun Oct 13 09:43:56 2024 +0800. The commit message is "鼠". The terminal shows the first few lines of the log, with tilde symbols indicating more content. At the bottom, it says "(END)".

```
commit 52d496d246c90b0ba13a1b25b5060af2f73dedad (HEAD -> main)
Author: bobo <bobo@boboweike.cn>
Date:   Sun Oct 13 09:43:56 2024 +0800

    鼠

~
~
(END)
```



小结和预告



- 本课小结
 - 一次提交包含两个步骤
 - 将文件添加到暂存区
 - 提交+提交消息
 - 执行了第一次提交
 - `git status`命令用于查看工作目录和暂存区的状态
 - `git log`命令列出本地仓库中的现有提交
- 下一课
 - 分支(branch)