

## Задание 2.1 Работа с GIT.

### Инициализация GIT

```
C:\Users\hp>cd C:\Users\hp\Desktop\Работы1\demo_repo  
  
C:\Users\hp\Desktop\Работы1\demo_repo>git init  
Initialized empty Git repository in C:/Users/hp/Desktop/Работы1/demo_repo/.git/
```

### Проверка статуса

```
C:\Users\hp\Desktop\Работы1\demo_repo>git status  
On branch master  
  
No commits yet  
  
nothing to commit (create/copy files and use "git add" to track)
```

### Создание файла, изменение его и проверка статуса

```
C:\Users\hp\Desktop\Работы1\demo_repo>type nul> readme.txt  
  
C:\Users\hp\Desktop\Работы1\demo_repo>notepad readme.txt  
  
C:\Users\hp\Desktop\Работы1\demo_repo>git status  
On branch master  
  
No commits yet  
  
Untracked files:  
  (use "git add <file>..." to include in what will be committed)  
    readme.txt  
  
nothing added to commit but untracked files present (use "git add" to track)
```

### Отслеживание файла и добавление коммита

```
C:\Users\hp\Desktop\Работы1\demo_repo>git add readme.txt

C:\Users\hp\Desktop\Работы1\demo_repo>пше ыефегы
"пше" не является внутренней или внешней
командой, исполняемой программой или пакетным файлом.

C:\Users\hp\Desktop\Работы1\demo_repo>git status
On branch master

No commits yet

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

C:\Users\hp\Desktop\Работы1\demo_repo>git commit -m "first file"
[master (root-commit) d27db24] first file
 1 file changed, 1 insertion(+)
 create mode 100644 readme.txt
```

Изменение файла и проверка отслеживания

```
C:\Users\hp\Desktop\Работы1\demo_repo>notepad readme.txt

C:\Users\hp\Desktop\Работы1\demo_repo>git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   readme.txt

no changes added to commit (use "git add" and/or "git commit -a")
```

Добавление двух новых файлов и проверка их статуса

```
C:\Users\hp\Desktop\Работы1\demo_repo>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   readme.txt

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

C:\Users\hp\Desktop\Работы1\demo_repo>git add "*.txt"

C:\Users\hp\Desktop\Работы1\demo_repo>git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   readme after.txt
        new file:   readme now.txt
        modified:   readme.txt
```

Создание коммита

```
C:\Users\hp\Desktop\Работы1\demo_repo>git commit -m "all files"
[master 7620639] all files
3 files changed, 3 insertions(+), 1 deletion(-)
create mode 100644 readme after.txt
create mode 100644 readme now.txt
```

Просмотр истории коммитов

```

C:\Users\hp\Desktop\Работы1\demo_repo>git log
commit 762063920a6b4571077896f34b5dcd0bc0f5a4 (HEAD -> master)
Author: danyakr <thebrrrr2505@gmail.com>
Date:   Fri Sep 22 12:47:19 2023 +0700

    all files

commit d27db24804599f089ac76f3c846ae9c002000cd5
Author: danyakr <thebrrrr2505@gmail.com>
Date:   Fri Sep 22 12:40:14 2023 +0700

    first file

C:\Users\hp\Desktop\Работы1\demo_repo>git log --summary
commit 762063920a6b4571077896f34b5dcd0bc0f5a4 (HEAD -> master)
Author: danyakr <thebrrrr2505@gmail.com>
Date:   Fri Sep 22 12:47:19 2023 +0700

    all files

    create mode 100644 readme after.txt
    create mode 100644 readme now.txt

commit d27db24804599f089ac76f3c846ae9c002000cd5
Author: danyakr <thebrrrr2505@gmail.com>
Date:   Fri Sep 22 12:40:14 2023 +0700

    first file

    create mode 100644 readme.txt

```

Создание удаленного репозитория и выгрузка файлов в него

```

C:\Users\hp\Desktop\Работы1\demo_repo>git remote add origin https://github.com/danyakr/demo_repo.git

C:\Users\hp\Desktop\Работы1\demo_repo>git push -u origin master
remote: Invalid username or password.
fatal: Authentication failed for 'https://github.com/danyakr/demo_repo.git/'

C:\Users\hp\Desktop\Работы1\demo_repo>git push -u origin master
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (6/6), 452 bytes | 226.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/danyakr/demo_repo.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.

```

Загрузка изменений с удаленного репозитория

```
C:\Users\hp\Desktop\Работы1\demo_repo>git pull origin master
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 643 bytes | 20.00 KiB/s, done.
From https://github.com/danyakr/demo_repo
* branch                master      -> FETCH_HEAD
   7620639..a3e8d5f      master      -> origin/master
Updating 7620639..a3e8d5f
Fast-forward
 readme.txt | 4 +++-
 1 file changed, 3 insertions(+), 1 deletion(-)
```

Изменение и просмотр их

```
C:\Users\hp\Desktop\Работы1\demo_repo>notepad readme.txt

C:\Users\hp\Desktop\Работы1\demo_repo>git diff HEAD
diff --git a/readme.txt b/readme.txt
index d4e9ff7..2201a1c 100644
--- a/readme.txt
+++ b/readme.txt
@@ -1,3 +1,3 @@
-Hello, world!
-Hello, world!
-Hello, world!
+Hello, world
+Hello, world
+Hello, world
```

Создание каталога и просмотр статуса

```
C:\Users\hp\Desktop\Работы1\demo_repo>mkdir folder

C:\Users\hp\Desktop\Работы1\demo_repo>type nul > folder\bye.txt

C:\Users\hp\Desktop\Работы1\demo_repo>git status
On branch master
Your branch is up to date with 'origin/master'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   readme.txt

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

no changes added to commit (use "git add" and/or "git commit -a")
```

Отслеживание каталога и просмотр отличий

```
C:\Users\hp\Desktop\Работы1\demo_repo>git add folder\bye.txt

C:\Users\hp\Desktop\Работы1\demo_repo>git diff --staged
diff --git a/folder/bye.txt b/folder/bye.txt
new file mode 100644
index 0000000..e69de29
```

Удаление файла из staging area

```
C:\Users\hp\Desktop\Работы1\demo_repo>git reset folder\bye.txt
Unstaged changes after reset:
M       readme.txt

C:\Users\hp\Desktop\Работы1\demo_repo>git diff --staged
```

Убираем изменения файла

```
C:\Users\hp\Desktop\Работы1\demo_repo>git checkout -- readme.txt
```

Работа с ветками

```

C:\Users\hp\Desktop\Работы1\demo_repo>git branch clean_up

C:\Users\hp\Desktop\Работы1\demo_repo>git branch
clean_up
* master

C:\Users\hp\Desktop\Работы1\demo_repo>git checkout clean_up
Switched to branch 'clean_up'

C:\Users\hp\Desktop\Работы1\demo_repo>git branch
* clean_up
master

```

Удаление каталога и файлов и создание коммита

```

C:\Users\hp\Desktop\Работы1\demo_repo>rd /s /q folder

C:\Users\hp\Desktop\Работы1\demo_repo>git commit -m "deleted folder"
On branch clean_up
nothing to commit, working tree clean

C:\Users\hp\Desktop\Работы1\demo_repo>del "readme now.txt"

C:\Users\hp\Desktop\Работы1\demo_repo>del "readme after.txt"

C:\Users\hp\Desktop\Работы1\demo_repo>git status
On branch clean_up
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:    readme after.txt
        deleted:    readme now.txt

no changes added to commit (use "git add" and/or "git commit -a")

C:\Users\hp\Desktop\Работы1\demo_repo>git commit -m "deleted folder and files"
On branch clean_up
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:    readme after.txt
        deleted:    readme now.txt

no changes added to commit (use "git add" and/or "git commit -a")

```

Изменение ветки и слияние

```
C:\Users\hp\Desktop\Работы1\demo_repo>git checkout master
Switched to branch 'master'
D      readme after.txt
D      readme now.txt
Your branch is up to date with 'origin/master'.

C:\Users\hp\Desktop\Работы1\demo_repo>git merge clean_up
Already up to date.
```

Удаление ветки

```
C:\Users\hp\Desktop\Работы1\demo_repo>git branch -d clean_up
Deleted branch clean_up (was a3e8d5f).
```

Выгрузка последних изменений

```
C:\Users\hp\Desktop\Работы1\demo_repo>git push
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 4 threads
Compressing objects: 100% (1/1), done.
Writing objects: 100% (2/2), 239 bytes | 239.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/danyakr/demo_repo.git
a3e8d5f..cae3f9c master -> master
```