5. 브랜치(Branch)

- 나뭇가지라는 의미로 메인브랜치와 메인브랜치에서 뻗어나가 관리되는 버전들을 브랜치라고 함.

- 커밋을 가리키는 포인터를 의미하기도한다.

- 반드시 main브랜치에 1개의 커밋작업이라도 존재해야만 만들 수 있다.

▼ 브랜치 생성하기 및 확인하기

```
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git branch apple

ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git branch
  apple
* main
```

▼ 브랜치간 이동하기 (git checkout 이동할브랜치명)

```
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git checkout apple
```

▼ 브랜치 별 커밋이력 확인하기

```
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (apple)
$ git log --oneline --branches --graph
* 1d28c23 (HEAD -> apple) a1.0
* 3c6ecf6 (main) m1.0
```

▼ 브랜치 병합하기

```
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git merge apple
Updating 3c6ecf6..2df115f
Fast-forward
 1.txt | 1 +
 2.txt | 2 ++
 2 files changed, 3 insertions(+)
 create mode 100644 2.txt
```

▼ 브랜치 병합 충돌 해결하기

```
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git merge apple
Auto-merging 2.txt
CONFLICT (content): Merge conflict in 2.txt
Automatic merge failed; fix conflicts and then commit the

ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main|MERGING)
$ vim 2.txt

ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main|MERGING)
$ git add .

ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main|MERGING)
$ git commit -m "m1.3"
[main c9942b2] m1.3
```

▼ 브랜치간 차이점 확인하기

```
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git log main..apple
commit c6e2e8251036724511024ad68677426742b1f889 (apple)
Author: ym <ikarosala@gmail.com>
```

```
Date:   Mon Oct 28 05:13:53 2024 +0900

    a1.3


------------------------------------------------------------
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git log apple..main
commit c9942b220f427223a5b9071f484228d62d075f9d (HEAD -> m
Merge: 7fa59bc 9d172d0
Author: ym <ikarosala@gmail.com>
Date:   Mon Oct 28 05:01:33 2024 +0900

    m1.3


commit 7fa59bc95a5d67861996d26f5c89c14289b7787a
Author: ym <ikarosala@gmail.com>
Date:   Mon Oct 28 04:59:08 2024 +0900

    m1.3


commit 89676f3a884b5e0578775a47d6e4d08d2e1224fc
Author: ym <ikarosala@gmail.com>
Date:   Mon Oct 28 04:55:00 2024 +0900

    m1.2


commit fd7ecfbc78514c3ad36daf0c6619c67d47edef6b
Author: ym <ikarosala@gmail.com>
Date:   Mon Oct 28 04:51:02 2024 +0900

    m1.1
```

▼ 브랜치 삭제하기

```
ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git branch -d apple
===============================================================

error: the branch 'apple' is not fully merged
hint: If you are sure you want to delete it, run 'git bran
hint: Disable this message with "git config advice.forceDe
===============================================================

ikaro@chocosoo MINGW64 /c/ikarosalaLocal (main)
$ git branch -D apple    /*강제 삭제 옵션*/
Deleted branch apple (was c6e2e82).
```