Title: Version Control System – GIT – mv,rm,reset

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Git mv command:

Here git mv command is used before and after commit.

Git mv with git diff --staged command:

Here diff –staged shows the difference in staged state and recent commit state

Git rm command:

Here I use rm before commit and after commit

Git tag:

```
ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/tagdemo (master)
$ git tag -a v2.0.0 -m "Latest commit version"

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/tagdemo (master)
$ git tag
v2.0.0

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/tagdemo (master)
$ git show v2.0.0
tag v2.0.0
Tagger: Abu Sharp <k.s.abudhahir@gmail.com>
Date:   Wed Jan 6 22:44:44 2021 +0530

Latest commit version

commit 9a7abb0b23de53167f33a0b0422dd3830fbb5647 (HEAD -> master, tag: v2.0.0)
Author: Abu Sharp <k.s.abudhahir@gmail.com>
Date:   Wed Jan 6 22:43:31 2021 +0530

    last commit

diff --git a/file.txt b/file.txt
index 70c379b..474c5a3 100644
--- a/file.txt
+++ b/file.txt
@@ -1 +1,2 @@
+Hello world
 Hello world
\ No newline at end of file
```

```
ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/tagdemo (master)
$ git log b72d9b2
commit b72d9b2fccf238e9b9a7622d9585a48a28b56fff
Author: Abu Sharp <k.s.abudhahir@gmail.com>
Date:   Wed Jan 6 22:42:30 2021 +0530

    first commit

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/tagdemo (master)
$ git tag -a v1.0.0 -m "First commit version"

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/tagdemo (master)
$ git tag
v1.0.0
v2.0.0

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/tagdemo (master)
$ git show v1.0.0
tag v1.0.0
Tagger: Abu Sharp <k.s.abudhahir@gmail.com>
Date:   Wed Jan 6 22:45:29 2021 +0530

First commit version

commit 9a7abb0b23de53167f33a0b0422dd3830fbb5647 (HEAD -> master, tag: v2.0.0, tag: v1.0.0)
Author: Abu Sharp <k.s.abudhahir@gmail.com>
Date:   Wed Jan 6 22:43:31 2021 +0530

    last commit

diff --git a/file.txt b/file.txt
index 70c379b..474c5a3 100644
--- a/file.txt
+++ b/file.txt
@@ -1 +1,2 @@
+Hello world
 Hello world
\ No newline at end of file
```

Here I mention 2 versions of commit.

Git clone:

```
ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/assignment
$ git clone https://github.com/AbuSharp1215/SAU-2021-Jan-Batch-Hyderabad.git
Cloning into 'SAU-2021-Jan-Batch-Hyderabad'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (6/6), done.

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/assignment
$
```

Git reset:

```
ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        reset.txt

nothing added to commit but untracked files present (use "git add" to track)

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git add reset.txt

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   reset.txt


ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git reset reset.txt

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        reset.txt

nothing added to commit but untracked files present (use "git add" to track)
```

Git reset <file> - unstage the changes of file from staging area

```
ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git diff
diff --git a/reset.txt b/reset.txt
index 70c379b..244d3af 100644
--- a/reset.txt
+++ b/reset.txt
@@ -1 +1,2 @@
-Hello world
\ No newline at end of file
+Hello world
+New changes added
\ No newline at end of file

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git add reset.txt

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git diff

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git reset
Unstaged changes after reset:
M       reset.txt

ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git diff
diff --git a/reset.txt b/reset.txt
index 70c379b..244d3af 100644
--- a/reset.txt
+++ b/reset.txt
@@ -1 +1,2 @@
-Hello world
\ No newline at end of file
+Hello world
+New changes added
\ No newline at end of file
```

Git reset – reset the staging area & remove the changes of file from staging area

```
ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git reset 7bb9e79
Unstaged changes after reset:
M       reset.txt
```

Git reset commitid – reset the head pointer to the commit id

```
ksabu@DESKTOP-KP9RBTM MINGW64 /e/git/branch (master)
$ git reset --hard HEAD~1
HEAD is now at dc8e7b1 commit6
```

--hard HEAD~1 – reset staging area and working tree (delete the last commited file)