

Use GIT as local VCS

```
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ alias my-add="git add"

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ my-add .

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git commit -m 'final edit'
[master ec28a12] final edit
1 file changed, 2 insertions(+), 1 deletion(-)

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git log
commit ec28a121ec05ebb6d3d64a4903e39f4581398f0f (HEAD -> master)
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:49:50 2022 +0530

    final edit

commit 747046b2e9145ffd541a81de765358344b02f76d
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:42:17 2022 +0530

    another edit

commit f9b776f5186d577e61129da414ee9c064e57bf4f
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:36:33 2022 +0530

    Revert "1st Revert Made"

    This reverts commit fda9e82151885d9691662b6eaa832ea7f012fdf4.

commit fda9e82151885d9691662b6eaa832ea7f012fdf4
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:32:53 2022 +0530

    again edited index.html

commit e3d2d1934d8588f153038ef84e4b447a9e80eef7
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:29:28 2022 +0530

    edited index.html

commit dc39a68177a26a1a51011675371c393c16c97dd2
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:21:47 2022 +0530

    added index.html
```

```
MINGW64;C:/Users/mahes/project_dir
mahes@DESKTOP-MNB8TQL MINGW64 ~
$ mkdir project_dir
mahes@DESKTOP-MNB8TQL MINGW64 ~
$ cd project_dir
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir
$ git init
Initialized empty Git repository in C:/Users/mahes/project_dir/.git/
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ touch index.html
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git status
On branch master

No commits yet

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

nothing added to commit but untracked files present (use "git add" to track)
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git add .
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git commit -m 'added index.html'
[master (root-commit) dc39a68] added index.html
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 index.html
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ touch info.txt
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ 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:   index.html

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

no changes added to commit (use "git add" and/or "git commit -a")
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ touch .gitignore
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$
```

```
MINGW64/c/Users/mahes/project_dir
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ 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:   index.html

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

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

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git add index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git commit -m 'edited index.html'
[master e3d2d19] edited index.html
1 file changed, 1 insertion(+)

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git log
commit e3d2d1934d8588f153038ef84e4b447a9e80eef7 (HEAD -> master)
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date:   Sat Feb 5 21:29:28 2022 +0530

    edited index.html

commit dc39a68177a26a1a51011675371c393c16c97dd2
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date:   Sat Feb 5 21:21:47 2022 +0530

    added index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git add index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git commit -m 'again edited index.html'
[master fda9e82] again edited index.html
1 file changed, 2 insertions(+), 1 deletion(-)

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ |
```

```
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git log
commit e3d2d1934d8588f153038ef84e4b447a9e80eef7 (HEAD -> master)
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:29:28 2022 +0530

    edited index.html

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Date: Sat Feb 5 21:21:47 2022 +0530

    added index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git add index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git commit -m 'again edited index.html'
[master fda9e82] again edited index.html
1 file changed, 2 insertions(+), 1 deletion(-)

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git log
commit fda9e82151885d9691662b6eaa832ea7f012fdf4 (HEAD -> master)
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:32:53 2022 +0530

    again edited index.html

commit e3d2d1934d8588f153038ef84e4b447a9e80eef7
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:29:28 2022 +0530

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commit dc39a68177a26a1a51011675371c393c16c97dd2
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date: Sat Feb 5 21:21:47 2022 +0530

    added index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git revert fda9e82151885d9691662b6eaa832ea7f012fdf4
[master f9b776f] Revert "1st Revert Made"
1 file changed, 1 insertion(+), 2 deletions(-)
```

```
MINGW64; c:/Users/mahes/project_dir
mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ 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:   index.html

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

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

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git add .

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git commit -m 'another edit'
[master 747046b] another edit
 2 files changed, 3 insertions(+), 1 deletion(-)
 create mode 100644 .gitignore

mahes@DESKTOP-MNB8TQL MINGW64 ~/project_dir (master)
$ git log
commit 747046b2e9145ffd541a81de765358344b02f76d (HEAD -> master)
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date:   Sat Feb 5 21:42:17 2022 +0530

    another edit

commit f9b776f5186d577e61129da414ee9c064e57bf4f
Author: m-Varun63 <maheshwarivarun63@gmail.com>
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    edited index.html

commit dc39a68177a26a1a51011675371c393c16c97dd2
Author: m-Varun63 <maheshwarivarun63@gmail.com>
Date:   Sat Feb 5 21:21:47 2022 +0530

    added index.html
```

GIT Branching

```
MINGW64:/c:/Users/mahes/Assignments
mahes@DESKTOP-MNB8TQL MINGW64 ~
$ mkdir Assignments
mahes@DESKTOP-MNB8TQL MINGW64 ~
$ cd Assignments
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments
$ git init
Initialized empty Git repository in C:/Users/mahes/Assignments/.git/
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ touch README.txt
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git add .
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git commit -m 'created README.txt'
[master (root-commit) 9456ffb] created README.txt
1 file changed, 3 insertions(+)
create mode 100644 README.txt
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git branch html-assignments
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git checkout html-assignments
Switched to branch 'html-assignments'
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ touch index.html
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git status
On branch html-assignments
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    index.html

nothing added to commit but untracked files present (use "git add" to track)
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git add .
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git commit -m 'copied html assignments'
[html-assignments 148bdad] copied html assignments
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 index.html
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git add .
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git commit -m 'updated html file'
[html-assignments a26a43a] updated html file
1 file changed, 1 insertion(+)
```

```
mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git checkout master
Switched to branch 'master'

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git add .

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git commit -m 'edited README.txt'
[master d27cedd] edited README.txt
1 file changed, 3 insertions(+), 1 deletion(-)

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git switch html-assignments
Switched to branch 'html-assignments'

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git add index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git commit -m 'updated html file again'
[html-assignments 2b802db] updated html file again
1 file changed, 2 insertions(+), 1 deletion(-)

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (html-assignments)
$ git checkout master
Switched to branch 'master'

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git merge html-assignments
Merge made by the 'ort' strategy.
index.html | 2 ++
1 file changed, 2 insertions(+)
create mode 100644 index.html

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ git branch -d html-assignments
Deleted branch html-assignments (was 2b802db).

mahes@DESKTOP-MNB8TQL MINGW64 ~/Assignments (master)
$ !
```