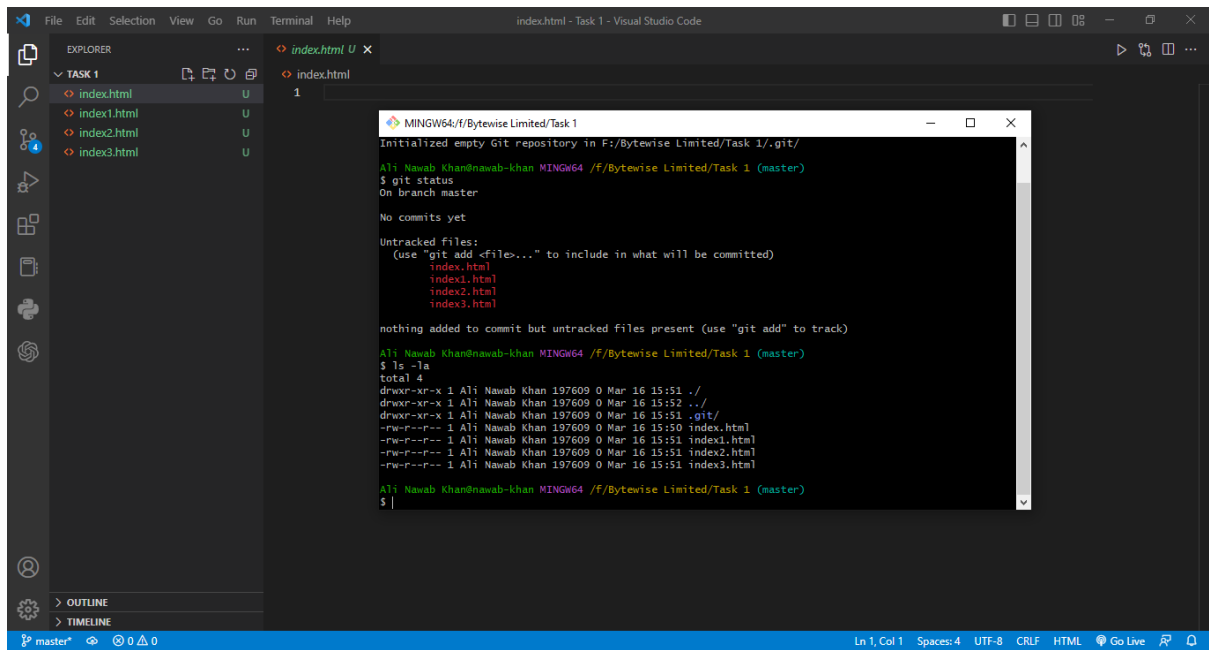


GIT

git init

git status (shows details about the file, whether the file is tracked or untracked, modified and commit etc)

ls -la



The screenshot shows the Visual Studio Code interface with a terminal window open. The Explorer panel on the left shows a project named 'TASK 1' with four files: 'index.html', 'index1.html', 'index2.html', and 'index3.html'. The 'index.html' file is selected, and its content is visible in the editor. The terminal window shows the output of the 'git status' command, indicating that the repository is initialized and that there are untracked files.

```
Initialized empty Git repository in F:/Bytewise Limited/Task 1/.git/
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git status
On branch master

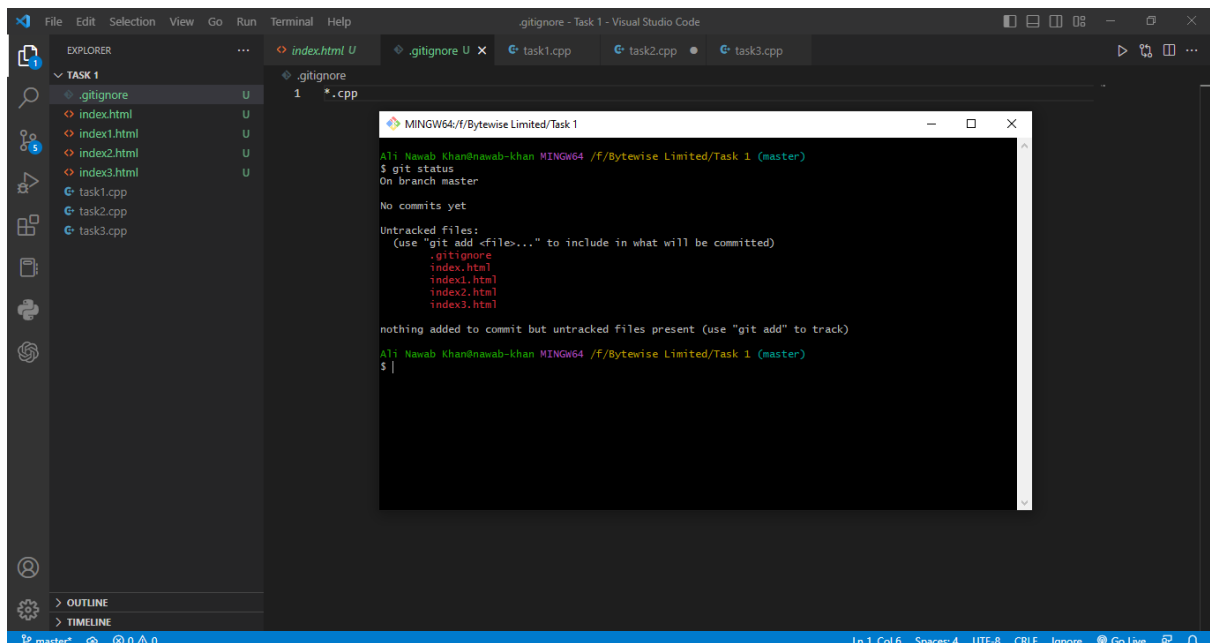
No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        index.html
        index1.html
        index2.html
        index3.html

nothing added to commit but untracked files present (use "git add" to track)
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ ls -la
total 4
drwxr-xr-x 1 Ali Nawab Khan 197609 0 Mar 16 15:51 ./
drwxr-xr-x 1 Ali Nawab Khan 197609 0 Mar 16 15:52 ../
drwxr-xr-x 1 Ali Nawab Khan 197609 0 Mar 16 15:51 .git/
-rw-r--r-- 1 Ali Nawab Khan 197609 0 Mar 16 15:50 index.html
-rw-r--r-- 1 Ali Nawab Khan 197609 0 Mar 16 15:51 index1.html
-rw-r--r-- 1 Ali Nawab Khan 197609 0 Mar 16 15:51 index2.html
-rw-r--r-- 1 Ali Nawab Khan 197609 0 Mar 16 15:51 index3.html
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$
```

.gitignore:

***.cpp**. this will ignore all the files starting with .cpp extension. Whether it is in the folder or not.



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left shows a project named 'TASK 1' with files: .gitignore, index.html, index1.html, index2.html, index3.html, task1.cpp, task2.cpp, and task3.cpp. The .gitignore file is open in the editor, showing the following content:

```
.gitignore
1 *.cpp
```

A terminal window is open, showing the output of the following commands:

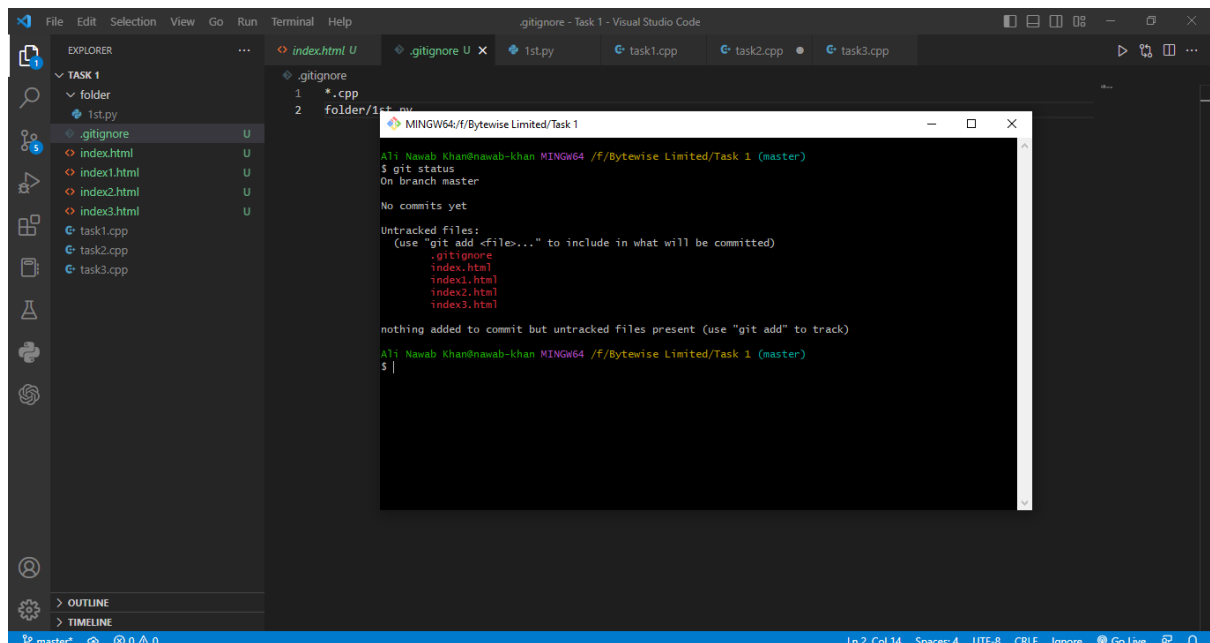
```
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .gitignore
        index.html
        index1.html
        index2.html
        index3.html

nothing added to commit but untracked files present (use "git add" to track)
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ |
```

Folder/1st.py (this will ignore the file present in the folder)



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left shows a project named 'TASK 1' with files: .gitignore, index.html, index1.html, index2.html, index3.html, task1.cpp, task2.cpp, and task3.cpp. The .gitignore file is open in the editor, showing the following content:

```
.gitignore
1 *.cpp
2 folder/1st.py
```

A terminal window is open, showing the output of the following commands:

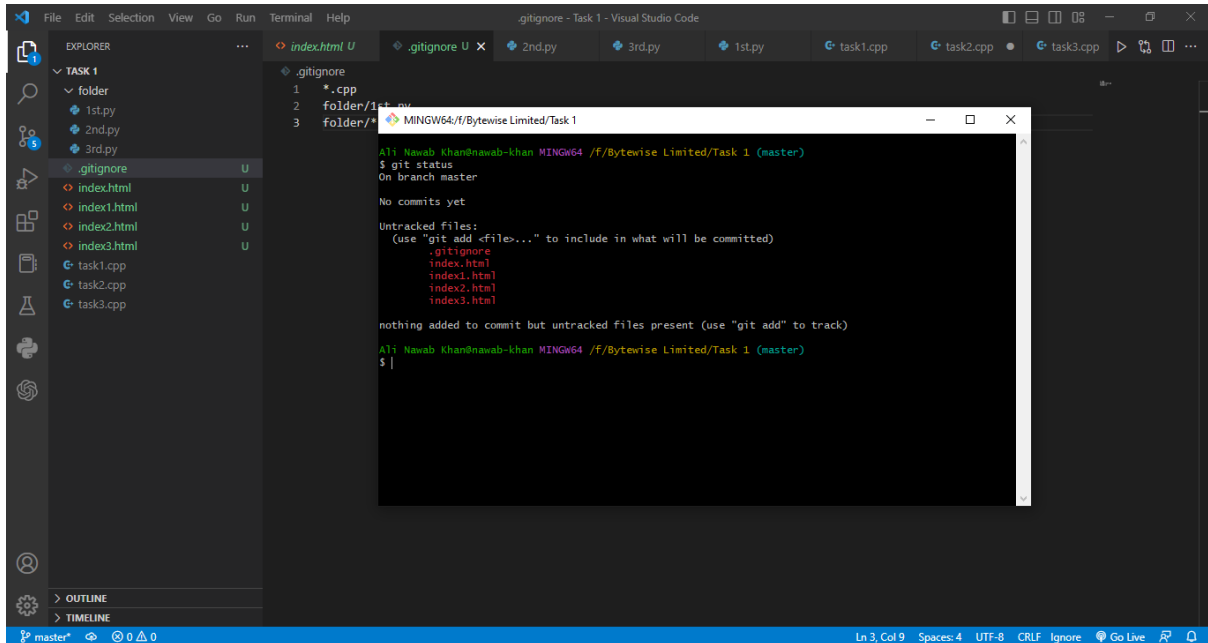
```
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git status
On branch master

No commits yet

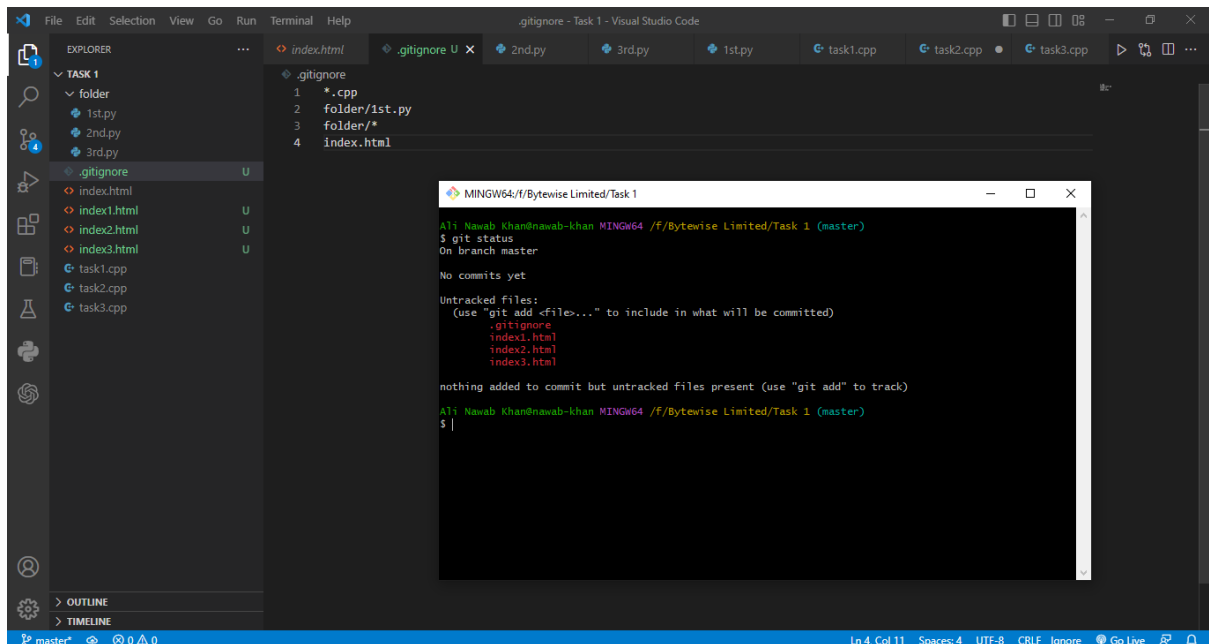
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        .gitignore
        index.html
        index1.html
        index2.html
        index3.html

nothing added to commit but untracked files present (use "git add" to track)
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ |
```

Folder/* (this will ignore all the files present in the folder).



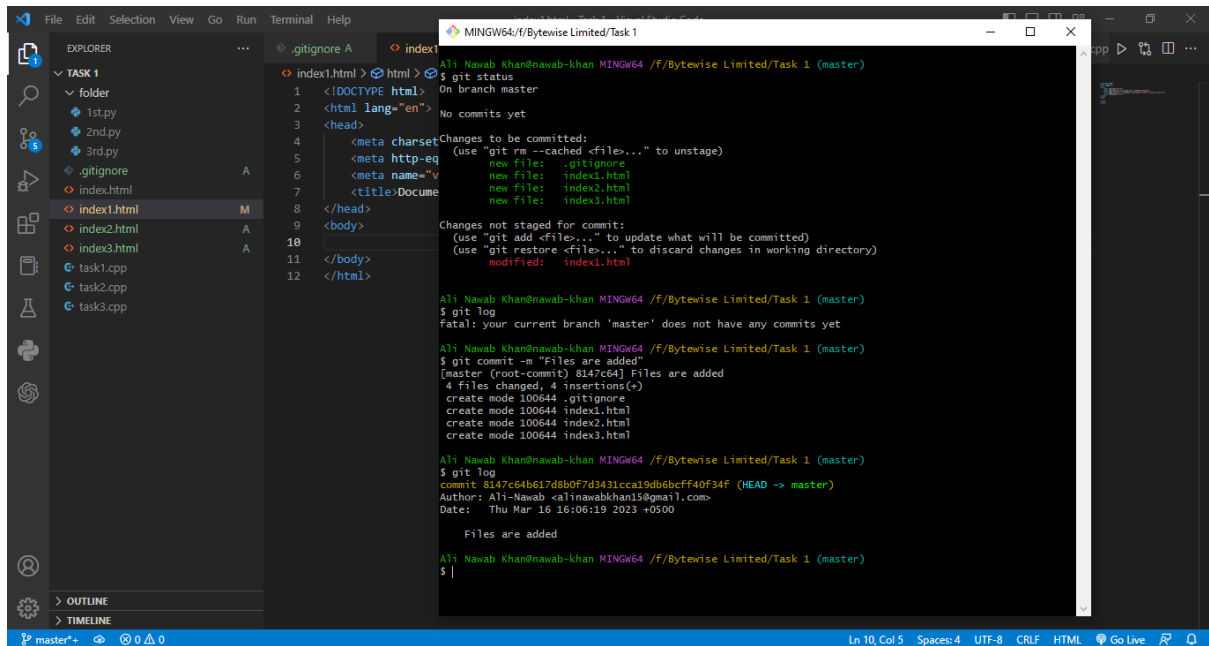
Index.html (this will ignore only index.html file)



git add -A (this will add files to staged)

git commit -m "html files are added"

git log (shows total number of commits)



```
Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git status
On branch master
No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   .gitignore
        new file:   index1.html
        new file:   index2.html
        new file:   index3.html

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:   index1.html

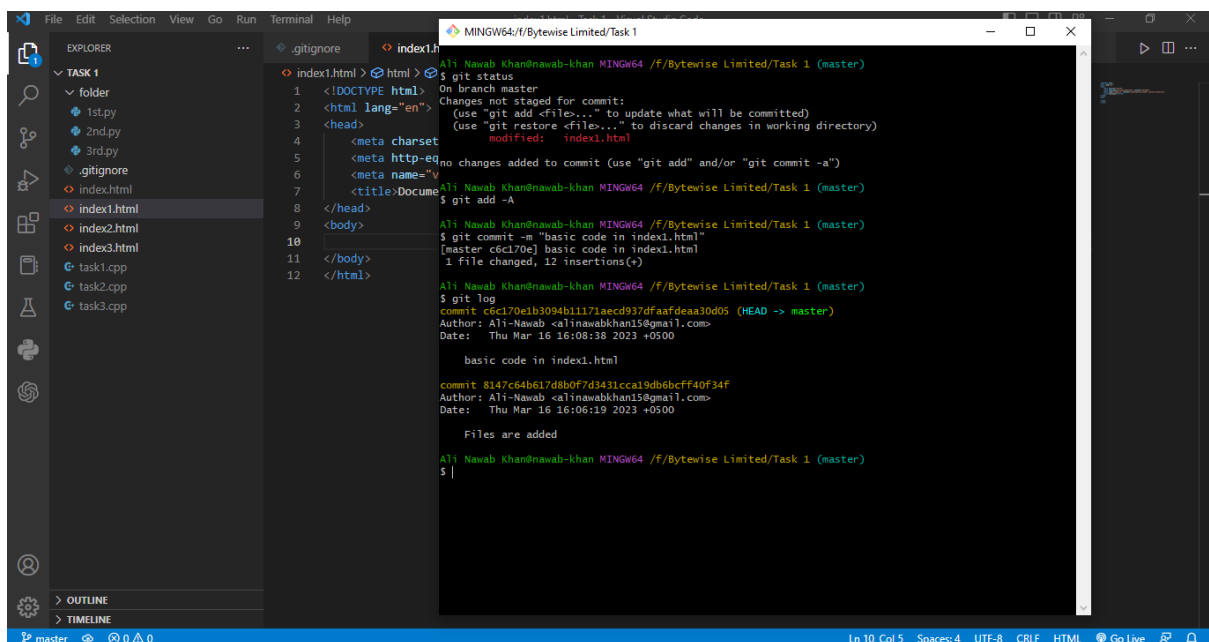
Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git log
fatal: your current branch 'master' does not have any commits yet

Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git commit -m "Files are added"
[master (root-commit) 8147c64] Files are added
 4 files changed, 4 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 index1.html
 create mode 100644 index2.html
 create mode 100644 index3.html

Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git log
commit 8147c64b617d8b0f7d3431ccca19db6bcff40f34f (HEAD -> master)
Author: Al1-Nawab <al1nawabkhan15@gmail.com>
Date:   Thu Mar 16 16:06:19 2023 +0500

    Files are added

Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ |
```



```
Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git status
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:   index1.html

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

Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git add -A

Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git commit -m "basic code in index1.html"
[master c6c170e] basic code in index1.html
 1 file changed, 12 insertions(+)

Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ git log
commit c6c170e1b3094b11171aecd937dffaafdeaa30d05 (HEAD -> master)
Author: Al1-Nawab <al1nawabkhan15@gmail.com>
Date:   Thu Mar 16 16:08:38 2023 +0500

    basic code in index1.html

commit 8147c64b617d8b0f7d3431ccca19db6bcff40f34f
Author: Al1-Nawab <al1nawabkhan15@gmail.com>
Date:   Thu Mar 16 16:06:19 2023 +0500

    Files are added

Al1 Nawab Khan@nawab-khan MINGW64 /F/Bytewise Limited/Task 1 (master)
$ |
```

git log -p (this will gives you more information about each commit).

```
MINGW64:/f/Bytewise Limited/Task 1
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git log -p
commit c6c170e1b3094b11171aec937d9aafdeaa30d05 (HEAD -> master)
Author: Ali-Nawab <alinawabkhan15@gmail.com>
Date: Thu Mar 16 16:08:38 2023 +0500

    basic code in index1.html

diff --git a/index1.html b/index1.html
index e69de29..56efbdb 100644
--- a/index1.html
+++ b/index1.html
@@ -0,0 +1,12 @@
+<!DOCTYPE html>
+<html lang="en">
+<head>
+  <meta charset="UTF-8">
+  <meta http-equiv="X-UA-Compatible" content="IE=edge">
+  <meta name="viewport" content="width=device-width, initial-scale=1.0">
+  <title>Document</title>
+</head>
+<body>
+  [REDACTED]
+</body>
+</html>
\ No newline at end of file

commit 8147c64b617d8b0f7d3431cca19db6bcff40f34f
Author: Ali-Nawab <alinawabkhan15@gmail.com>
Date: Thu Mar 16 16:06:19 2023 +0500

    Files are added

diff --git a/.gitignore b/.gitignore
new file mode 100644
index 0000000..ac40095
--- /dev/null
+++ b/.gitignore
@@ -0,0 +1,4 @@
+*.cpp
+folder/1st.py
+folder/*
+index.html
\ No newline at end of file
diff --git a/index1.html b/index1.html
index e69de29..56efbdb 100644
--- a/index1.html
+++ b/index1.html
@@ -0,0 +1,12 @@
+<!DOCTYPE html>
+<html lang="en">
+<head>
+  <meta charset="UTF-8">
+  <meta http-equiv="X-UA-Compatible" content="IE=edge">
+  <meta name="viewport" content="width=device-width, initial-scale=1.0">
+  <title>Document</title>
+</head>
+<body>
+  [REDACTED]
+</body>
+</html>
\ No newline at end of file
```

Branching and Merging:

```
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git branch feature1

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git branch -v
  feature1 c6c170e basic code in index1.html
* master   c6c170e basic code in index1.html

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git checkout feature1
Switched to branch 'feature1'

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (feature1)
$ git branch -v
* feature1 c6c170e basic code in index1.html
  master   c6c170e basic code in index1.html

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (feature1)
$ touch value.html

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (feature1)
$ git status
On branch feature1
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    value.html

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

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (feature1)
$ git add -A

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (feature1)
$ git commit -m "value.html added"
[feature1 33c859d] value.html added
 1 file changed, 1 insertion(+)
 create mode 100644 value.html
```

git branch feature 1, git branch -v

```
Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (feature1)
$ git status
On branch feature1
nothing to commit, working tree clean

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (feature1)
$ git checkout master
Switched to branch 'master'

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ ls
folder/  index.html  index1.html  index2.html  index3.html  task1.cpp  task2.cpp  task3.cpp

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git merge feature1
Updating c6c170e..33c859d
Fast-forward
 value.html | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 value.html

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ ls
folder/  index1.html  index3.html  task2.cpp  value.html
index.html  index2.html  task1.cpp   task3.cpp

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$
```

STASH(temporary remove the material and then you can easily restore it).

git stash

git stash list

git stash pop

git stash apply <name>

```

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (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:   index2.html

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

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash
Saved working directory and index state WIP on master: 33c859d value.html added

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (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:   index3.html

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

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash
Saved working directory and index state WIP on master: 33c859d value.html added

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash list
stash@{0}: WIP on master: 33c859d value.html added
stash@{1}: WIP on master: 33c859d value.html added

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash pop
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:   index3.html

no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (f6352e91851ba7667035d40a0330dea070dced2f)

```

```

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash stash@{1}
fatal: unknown subcommand: stash@{1}

usage: git stash list [<options>]
or: git stash show [<options>] [<stash>]
or: git stash drop [-q|--quiet] [<stash>]
or: git stash ( pop | apply ) [--index] [-q|--quiet] [<stash>]
or: git stash branch <branchname> [<stash>]
or: git stash clear
or: git stash [push [-p|--patch] [-S|--staged] [-k|--[no-]keep-index] [-q|--quiet]
    [-u|--include-untracked] [-a|--all] [-m|--message <message>]
    [--pathspec-from-file=<file> [--pathspec-file-nul]]
    [--] [<pathspec>...]
or: git stash save [-p|--patch] [-S|--staged] [-k|--[no-]keep-index] [-q|--quiet]
    [-u|--include-untracked] [-a|--all] [<message>]

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash apply stash@{1}
fatal: log for 'stash' only has 1 entries

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash list
stash@{0}: WIP on master: 33c859d value.html added

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ git stash apply stash@{0}
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:   index2.html
        modified:   index3.html

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

Ali Nawab Khan@nawab-khan MINGW64 /f/Bytewise Limited/Task 1 (master)
$ |

```

