

Git - Perform Changes

Jerry clones the repository and decides to implement basic string operations. So he creates string.c file. After adding the contents, string.c will look like as follows –

```
#include <stdio.h>

int my_strlen(char *s)
{
    char *p = s;

    while (*p)
        ++p;

    return (p - s);
}

int main(void)
{
    int i;
    char *s[] =
    {
        "Git tutorials",
        "Tutorials Point"
    };

    for (i = 0; i < 2; ++i)

        printf("string length of %s = %d\n", s[i], my_strlen(s[i]));

    return 0;
}
```

He compiled and tested his code and everything is working fine. Now, he can safely add these changes to the repository.

Git add operation adds file to the staging area.

```
[jerry@CentOS project]$ git status -s
?? string
?? string.c
```

```
[jerry@CentOS project]$ git add string.c
```

Git is showing a question mark before file names. Obviously, these files are not a part of Git, and that is why Git does not know what to do with these files. That is why, Git is showing a question mark before file names.

Jerry has added the file to the stash area, git status command will show files present in the staging area.

```
[jerry@CentOS project]$ git status -s  
A string.c  
?? string
```

To commit the changes, he used the git commit command followed by -m option. If we omit -m option. Git will open a text editor where we can write multiline commit message.

```
[jerry@CentOS project]$ git commit -m 'Implemented my_strlen function'
```

The above command will produce the following result –

```
[master cbe1249] Implemented my_strlen function  
1 files changed, 24 insertions(+), 0 deletions(-)  
create mode 100644 string.c
```

After commit to view log details, he runs the git log command. It will display the information of all the commits with their commit ID, commit author, commit date and **SHA-1** hash of commit.

```
[jerry@CentOS project]$ git log
```

The above command will produce the following result –

```
commit cbe1249b140dad24b2c35b15cc7e26a6f02d2277  
Author: Jerry Mouse <jerry@tutorialspoint.com>  
Date: Wed Sep 11 08:05:26 2013 +0530  
  
Implemented my_strlen function  
  
commit 19ae20683fc460db7d127cf201a1429523b0e319
```

Author: Tom Cat <tom@tutorialspoint.com>

Date: Wed Sep 11 07:32:56 2013 +0530

Initial commit