

CC Execution

Pehle gitonga kya dekhna padenga

If yes : ok

If no :

1) sudo apt update

2) sudo apt install git -y

To check git version : git --version

Then,

1. make a folder:- mkdir (PRactices_CC)
2. Git clone :-

git clone (github repo link)

1) Git clone

```
tirthak@LAPTOP-MS9PL50A:~/mnt/c/Users/Tirthak/Practices_CC$ git
usage: git [--version] [-h|--help] [-C <path>] [-c <name>=<value>]
       [--exec-path=<path>] [--html-path] [--man-path] [--info-path]
       [-p] [--paginate] [-P] [--no-pager] [--no-replace-objects] [--bare]
       [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
       [--super-prefix=<path>] [--config-env=<name>=<envvar>]
       [<command>] [<args>]

These are common Git commands used in various situations:

start a working area (see also: git help tutorial)
  clone   Clone a repository into a new directory
  init    Create an empty Git repository or reinitialize an existing one

work on the current change (see also: git help everyday)
  add     Add files to the index
  mv     Move or rename a file, directory, or a symlink
  restore Restore working tree files
  rm     Remove files from the working tree and from the index

examine the history and state (see also: git help revisions)
  bisect  Binary search to find the commit that introduced a bug
  diff    Show changes between commits, commit and working tree, etc
  grep   Print lines matching a pattern
  log    Show commit logs
  show   Show various types of objects
  status Show the working tree status

grow, mark and tweak your common history
  branch List, create, or delete branches
  commit Record changes in the repository
  merge  Join two or more development histories together
  rebase  Reapply commits on top of another base tip
  reset  Reset current HEAD to the specified state
  switch Switch branches
  tag    Create, list, delete or verify a tag object signed with GPG

collaborate (see also: git help workflows)
  fetch  Download objects and refs from another repository
  pull   Fetch from and integrate with another repository or a local branch
  push   Update remote refs along with associated objects

'git help -a' and 'git help -g' list available subcommands and some
concept guides. See 'git help <command>' or 'git help <concept>''
to read about a specific subcommand or concept.
See 'git help git' for an overview of the system.
tirthak@LAPTOP-MS9PL50A:~/mnt/c/Users/Tirthak/Practices_CC$ git clone https://github.com/TarunSingh1803/Compiler-Construction-Lab-Sem7.git
Cloning into 'Compiler-Construction-Lab-Sem7'...
remote: Enumerating objects: 72, done.
remote: Counting objects: 100% (72/72), done.
remote: Compressing objects: 100% (72/72), done.
remote: Total 72 (delta 37), reused 0 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (72/72) 22.70 Kib | 726.00 Kib/s, done.
Resolving deltas: 100% (37/37), done.
tirthak@LAPTOP-MS9PL50A:~/mnt/c/Users/Tirthak/Practices_CC$ ls
tirthak@LAPTOP-MS9PL50A:~/mnt/c/Users/Tirthak/Practices_CC$ |
```

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC$ ls
Compiler-Construction-Lab-Sem7/
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC$ cd Compiler-Construction-Lab-Sem7/
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ls
CC_Lab1.l CC_Lab10.l CC_Lab10.y CC_Lab2.l CC_Lab3.l CC_Lab4.l CC_Lab5.l CC_Lab6.l CC_Lab7.l CC_Lab7.y CC_Lab8.l CC_Lab8.y CC_Lab9.l CC_Lab9.y README.md
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$
```

2)Prac 2

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_Lab2.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ gcc lex.yy.c
/usr/bin/ld: /tmp/ccm7ENEY.o: in function `yylex':
lex.yy.c:(.text+0x510): undefined reference to `yywrap'
/usr/bin/ld: /tmp/ccm7ENEY.o: in function `input':
lex.yy.c:(.text+0x1126): undefined reference to `yywrap'
collect2: error: ld returned 1 exit status
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ gcc lex.yy.c -ll
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
int number = 1;
print("%d", number);
Comments : 0
Keywords : 1
Identifiers : 4
Words : 0
Lines : 2
Spaces : 0
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$
```

isme thoda code likhna padenga output me (screenshot me deh le)

3)Prac 7

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ yacc -d CC_Lab7.y
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ls
CC_Lab1.l CC_Lab10.l CC_Lab10.y CC_Lab2.l CC_Lab3.l CC_Lab4.l CC_Lab5.l CC_Lab6.l CC_Lab7.l CC_Lab7.y CC_Lab8.l CC_Lab8.y CC_Lab9.l CC_Lab9.y README.md a.out lex.yy.c y.tab.c y.tab.h
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_Lab7.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ls
CC_Lab1.l CC_Lab10.l CC_Lab10.y CC_Lab2.l CC_Lab3.l CC_Lab4.l CC_Lab5.l CC_Lab6.l CC_Lab7.l CC_Lab7.y CC_Lab8.l CC_Lab8.y CC_Lab9.l CC_Lab9.y README.md a.out lex.yy.c y.tab.c y.tab.h
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ lex yy.c y.tab.c -lfl
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ls
CC_Lab1.l CC_Lab10.l CC_Lab2.l CC_Lab3.l CC_Lab4.l CC_Lab5.l CC_Lab6.l CC_Lab7.l CC_Lab7.y CC_Lab8.l CC_Lab8.y CC_Lab9.l CC_Lab9.y README.md a.out lex.yy.c y.tab.c y.tab.h
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
28 30 +
Result: 50
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ctrl d - to get out |
```

Prac 3

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ls
CC_Lab1.l CC_Lab10.y CC_Lab3.l CC_Lab5.l CC_Lab7.l CC_Lab8.l CC_Lab9.l README.md lex.yy.c y.tab.h
CC_Lab10.l CC_Lab2.l CC_Lab4.l CC_Lab6.l CC_Lab7.y CC_Lab8.y CC_Lab9.y a.out y.tab.c
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_lab3.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ gcc lex.yy.c -ll
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
Arya is a girl
Number of words starting with 'A' or 'a': 2
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ practical 3|
```

Prac 4

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_lab4.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ gcc lex.yy.c -ll
^[[[Atirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
tirthak
TIRTHAK
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ Upper case lower case - CC- 4|
```

Prac 5

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_lab5.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ gcc lex.yy.c -ll
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
100
0x64

1000
0x3E8

tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ Conversion of decimal to hexa decimal -CC - 4|
```

Prac 6

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_lab6.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ gcc lex.yy.c -ll
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
google.com
Line 1 ends with 'com': google.com
google
google.com
Line 3 ends with 'com': google.comtirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ 
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ Ending with dot com|
```

Prac 8

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ yacc -d CC_Lab8.y
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_Lab8.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ls
CC_Lab1.l CC_Lab10.y CC_Lab3.l CC_Lab5.l CC_Lab7.l CC_Lab8.l CC_Lab9.l README.md lex.yy.c y.tab.c
CC_Lab10.l CC_Lab2.l CC_Lab4.l CC_Lab6.l CC_Lab7.y CC_Lab8.y CC_Lab9.y a.out y.tab.c
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ cc lex.yy.cc y.tab.c -lfl
ccplus: fatal error: lex.yy.cc: No such file or directory
compilation terminated.
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ cc lex.yy.c y.tab.c -lfl
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
10 + 5
    Result: 15
10 - 5
    Result: 5
10 / 5
    Result: 2
10 * 5
    Result: 50
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ Desk Calculator |
```

Prac 9

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak$ cd Practicals_CC/
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC$ ls
Compiler-Construction-Lab-Sem7
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC$ cd Compiler-Construction-Lab-Sem7/
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ls
CC_Lab1.l CC_Lab10.y CC_Lab2.l CC_Lab3.l CC_Lab5.l CC_Lab7.l CC_Lab8.l CC_Lab9.l CC_Lab9.y README.md a.out lex.yy.c y.tab.c y.tab.h
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ yacc -d CC_Lab9.y
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_Lab9.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ cc lex.yy.c y.tab.c -lfl
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
Enter your input:
for( i = 1; i;)
Error: syntax error
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
Enter your input:
for i = 1; i ; i) {
Error: syntax error
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
Enter your input:
for(i=1;i;i++)
Error: syntax error
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
Enter your input:
for(i=1;i<1;i++)
Error: syntax error
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
Enter your input:
for(i=1;i<1;i++)
Valid FOR loop structure
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ For loop syntax|
```

Prac 10

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ yacc -d CC_Lab10.y
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ flex CC_Lab10.l
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ cc lex.yy.c y.tab.c -lfl
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ ./a.out
Three-Address Code:
Enter expression (press Ctrl+D when done):
6*3+8+5t0 = 6
t1 = 3
t2 = t0 * t1
t3 = 8
t4 = t2 + t3
t5 = 5
t6 = t4 + t5
Final result stored in: t6
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC/Compiler-Construction-Lab-Sem7$ three address code (expressions ko tockens me divide kar ra hai )|
```