

CC Execution

Pehle git honga 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 (PRacticles_CC)
2. Git clone :-

git clone (github repo link)

1)Git clone

```
tirthak@LAPTOP-MS9PL50A: /mnt/c/Users/Tirthak/Practicals_CC$ git
usage: git [--version] [--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 file contents to the index
  mv Move or rename a file, a 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 Use 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 to 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/Practicals_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/Practicals_CC$ ls
Compiler-Construction-Lab-Sem7
tirthak@LAPTOP-MS9PL50A: /mnt/c/Users/Tirthak/Practicals_CC$ |
```

```
tirthak@LAPTOP-MS9PL50A:/mnt/c/Users/Tirthak/Practicals_CC$ ls
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_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.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.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$ cc 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.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$ ./a.out
20 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.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$ cc lex.yy.c y.tab.c -lfl
cc1plus: 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
CC_Lab1.l CC_Lab10.y CC_Lab2.l CC_Lab3.l CC_Lab4.l CC_Lab5.l CC_Lab6.l CC_Lab7.l CC_Lab8.l CC_Lab9.l 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; 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++){
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 tokens me divide kar ra hai)|
```