Shri Ramdeobaba College of Engineering and Management, Nagpur
Department of Computer Science and Engineering
Session: 2020-21

Language Processors Lab   **VII Semester (Shift-I)**

INSTALLATION GUIDE

Instructions:

- The initial lab experiments will be using FLEX and BISION.
- All the students should complete the installation on their laptop / desktop.
- Students can use WINDOWS or LINUX

FOR INSTALLTION ON WINDOWS OS

Step 1: Download setup file for flex and bison from given link

1. Install Flex: http://gnuwin32.sourceforge.net/packages/flex.htm
2. Install Bison:http://gnuwin32.sourceforge.net/packages/bison.htm

NOTE: Install flex and bison in C:\GnuWin32 (do not use the default path)

Step 2: Download setup file for C

https://sourceforge.net/projects/orwelldevcpp/

Click on download

NOTE: Install in C:\Dev-Cpp

Step 3: Add to **PATH variable**

> Access from control panel→ system→ advanced system settings→ Environment variable→ EDIT

Add the following to the path variable:

C:\GnuWin32\bin

C:\Dev-Cpp\MinGW64\bin

C:\Dev-Cpp\MinGW64\libexec\gcc\x86_64-w64-mingw32\4.9.2

C:\Dev-Cpp\MinGW64\x86_64-w64-mingw32\bin

OR

According to your machine installation the bin folder, version folder.

Step 4: Check installation

- Open NOTEPAD
- Copy paste the given code
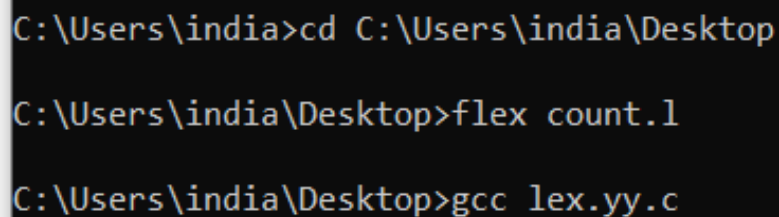- Click save as→ count.l (IMP: select all files, it is not a text file)

count dot small L

```
%{
#include<stdio.h>
#include<string.h>
int i = 0;
%}
/* Rules Section*/
%%
([a-zA-Z0-9])*    {i++;} /* Rule for counting
                number of words*/
"\n" {printf("%d\n", i); i = 0;}
%%
int yywrap(void){}
int main()
{
   // The function that starts the analysis
   yylex();
   return 0;
}
```

Step 5: Run and check

1. Open command prompt: type cmd
2. Change directory to folder where you have saved the lex file (having .l extension)
3. Run flex: flex count.l
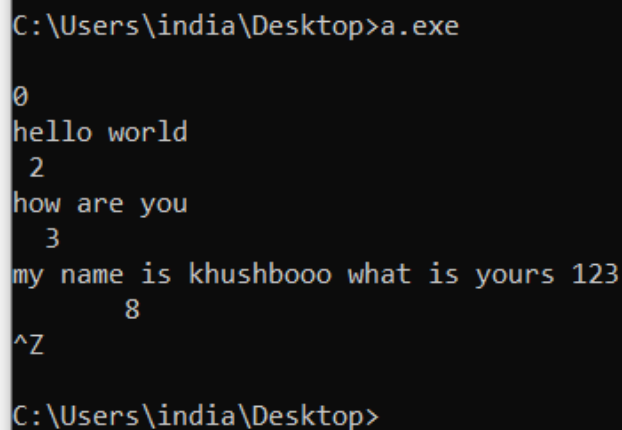4. Then run c: gcc lex.yy.c

Example:

```
C:\Users\india>cd C:\Users\india\Desktop

C:\Users\india\Desktop>flex count.l

C:\Users\india\Desktop>gcc lex.yy.c
```

5. To run exe: type a.exe and write any word and enter

Example:

```
C:\Users\india\Desktop>a.exe

0
hello world
 2
how are you
  3
my name is khushbooo what is yours 123
      8
^Z

C:\Users\india\Desktop>
```

FOR INSTALLTION ON LINUX OS

(NOTE: INTERNET CONNECTION IS NECESSARY FOR command based installation on LINUX)

Step 1: Open Terminal

Step 2: Update

Type the command: sudo apt-get update

```
hdpuser@local-master:~$ sudo apt-get update
```

Step 3: install flex and bison

Type commands one by one:

> sudo apt-get install flex
>
> sudo apt-get install bison

Step 4: Check installation

- Open a text editor. Command: gedit try1.l
- Text editor opens write the below code in it and save.
  %%
  [\t]+$;
- Complie with LEX. Command: flex try1.l
- Run c. Command: gcc lex.yy.c –lfl
- Run final
  ./a.out
  and type hello world.
  If hello world comes again then installation is successful. Press control+z on to exit.

Screen shot:

```
hdpuser@local-master:~$ gedit try1.l
hdpuser@local-master:~$ flex try1.l
hdpuser@local-master:~$ gcc lex.yy.c -lfl
hdpuser@local-master:~$ ./a.out
hello world
hello world
^Z
[1]+  Stopped                 ./a.out
hdpuser@local-master:~$
```