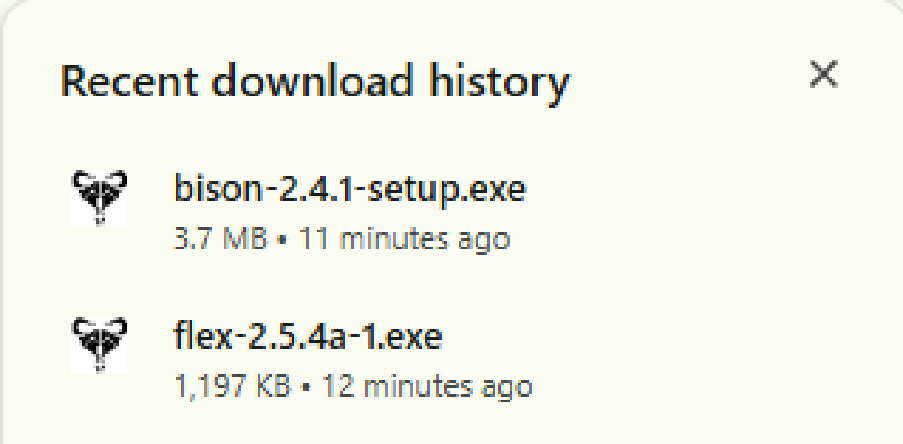
Lab Report 1

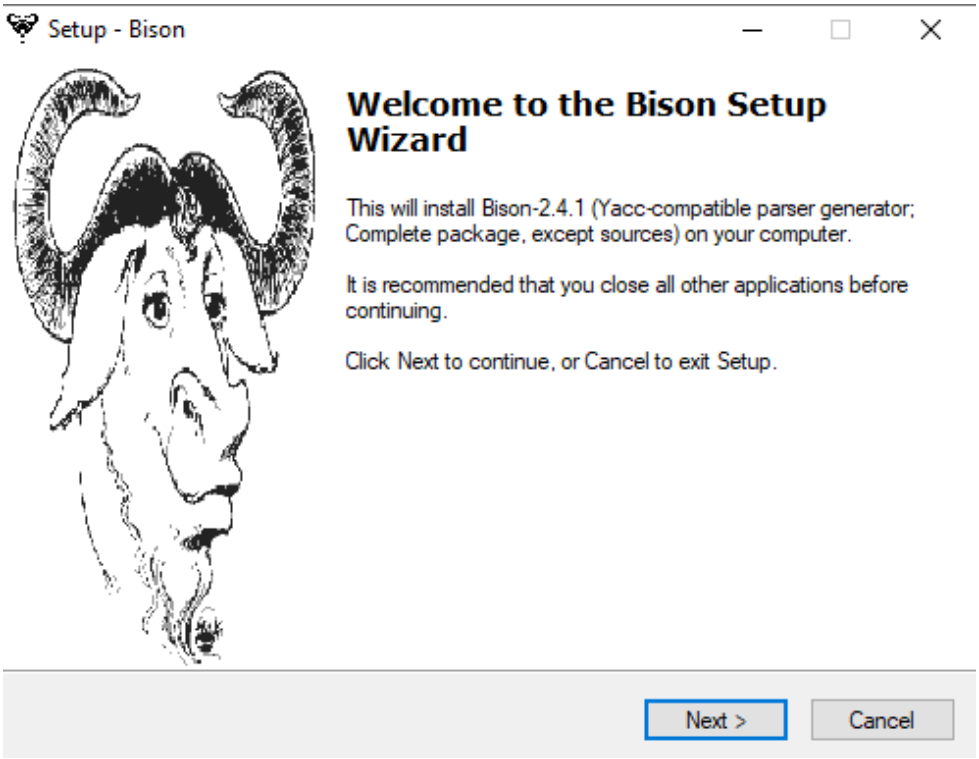
ID: 0242310005101019 (64_M2)

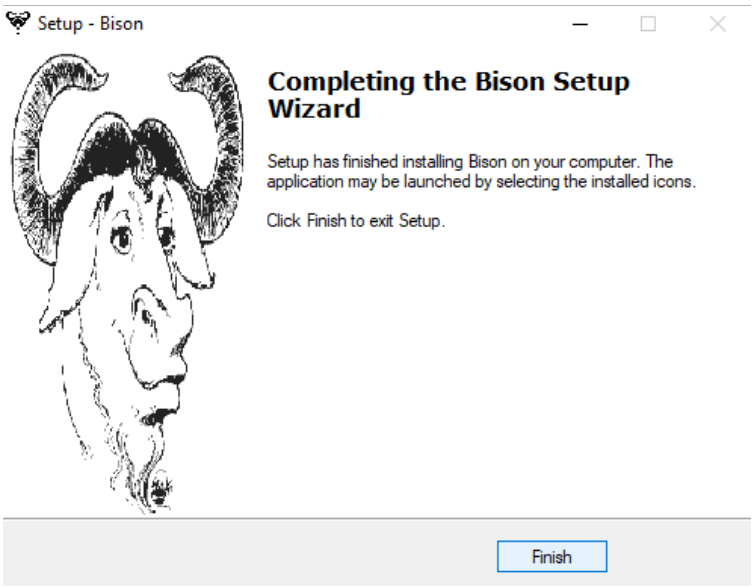
Environment Setup:

1. **Download File:** bison-2.4.1-setup.exe & flex-2.5.4a-1.exe



2. **Install**: bison-2.4.1-setup.exe & flex-2.5.4a-1.exe

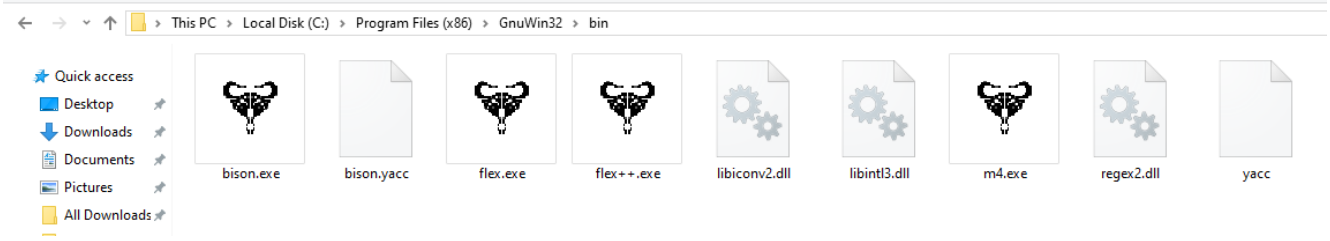



Setup - Bison
Completing the Bison Setup Wizard
Setup has finished installing Bison on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Finish

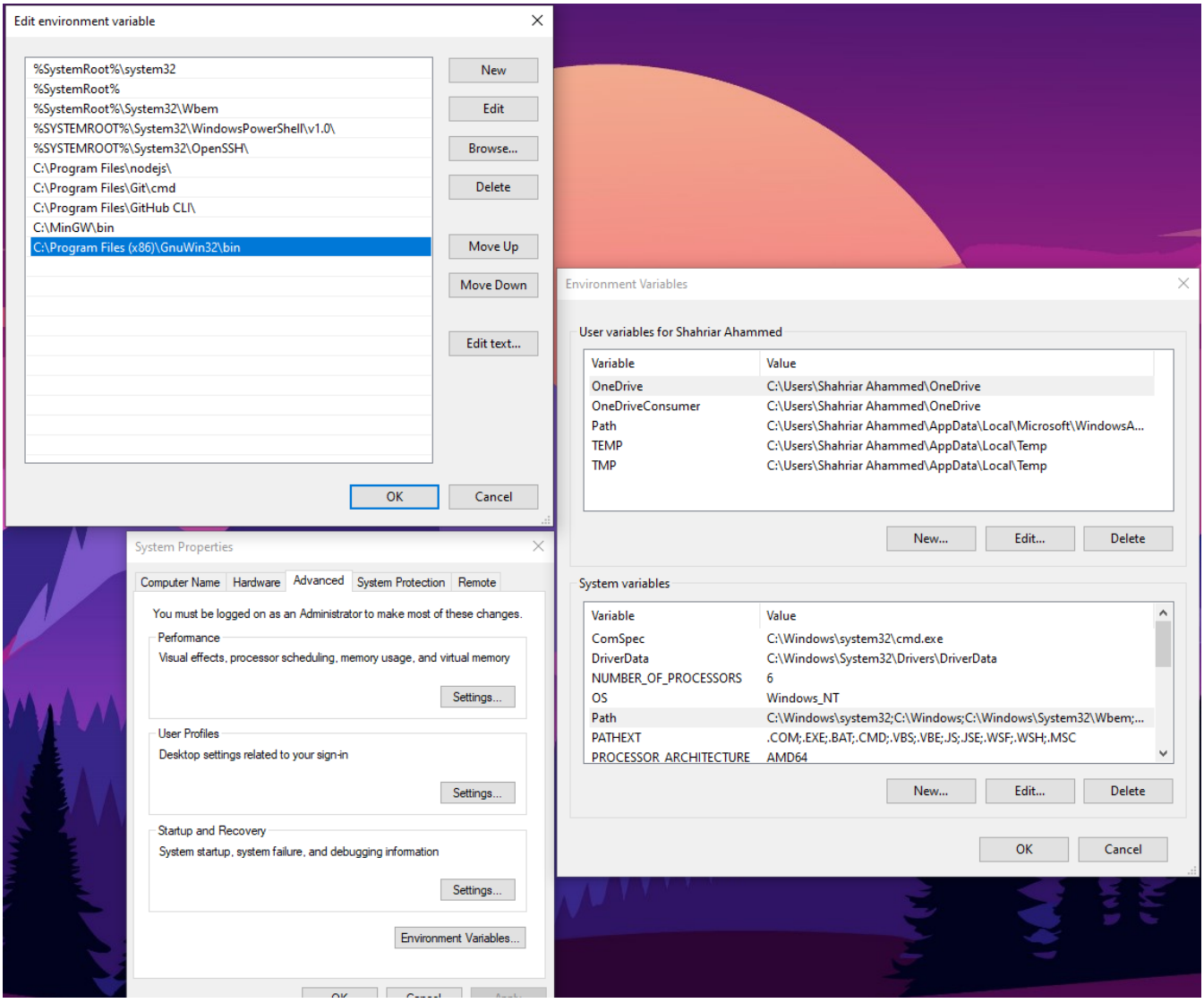

Setup - Flex
Welcome to the Flex Setup Wizard
This will install Flex-2.5.4a (fast lexical analyzer generator; Complete package, except sources) on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel


Setup - Flex
Completing the Flex Setup Wizard
Setup has finished installing Flex on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Finish

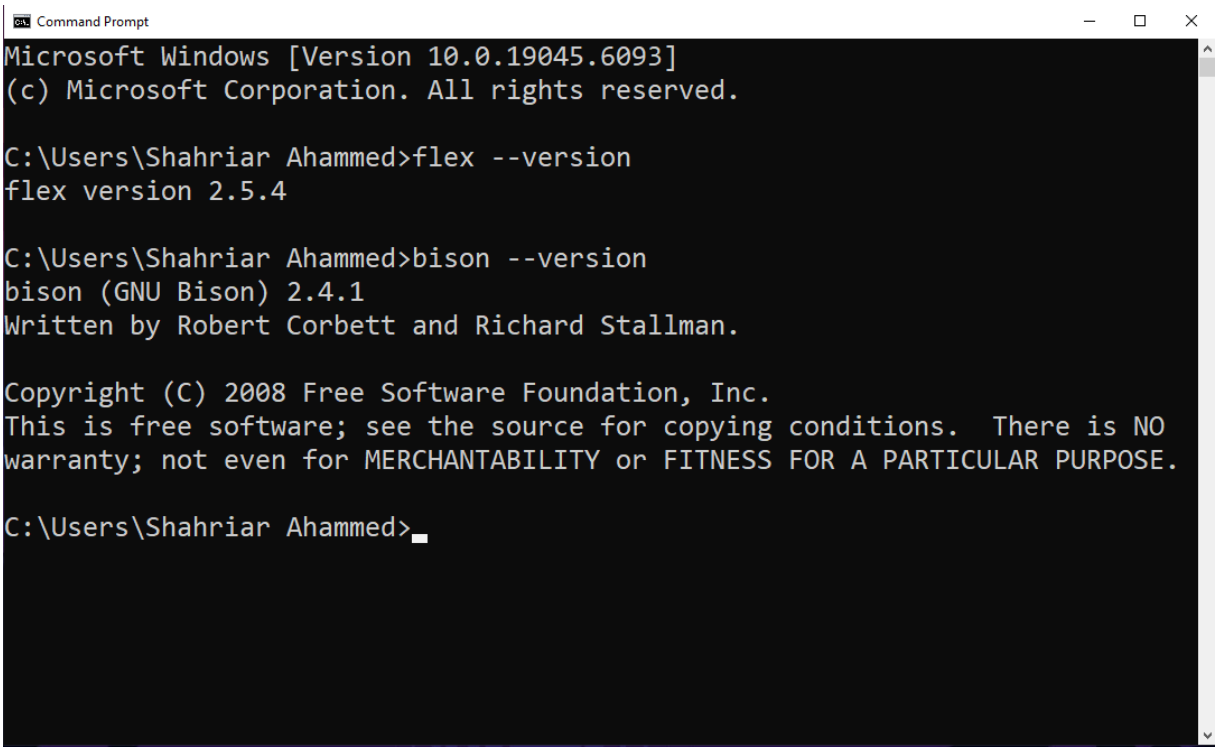
3. **Showing Path** : C:\Program Files (x86)\GnuWin32\bin



4. Environment variable set up → System variable → Path → Edit → New → C:\Program Files (x86)\GnuWin32\bin → Ok



5. **Version Check:** flex --version & bison –version



Now, we can see Successfully software install and Environment setup completed.

Lab Report 2

1. **Identifying words using only Flex:**

Open Notepad, write your code or text, then go to File > Save As, type a file name ending with .l, select All Files as the file type, and click Save. This will create a .l extension file using Notepad.

Code:

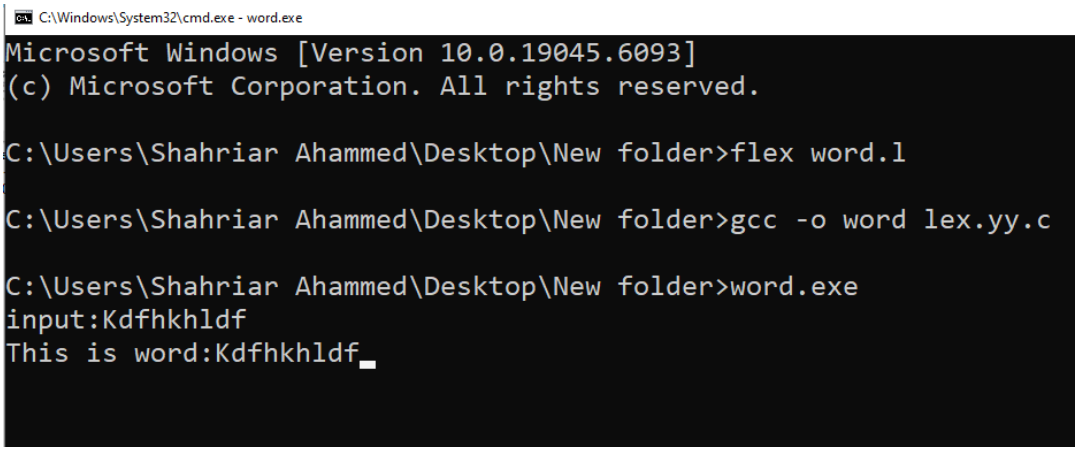
```
%{
#include<stdio.h>
%}

%%
[a-zA-Z]+ {printf("This is word:%s",yytext);}
.|\n
%%

int main ()
{
printf("input:");
yylex();
return 0;
}

int yywrap()
{
return 1;
}
```

Output:



2. Identifying Numbers using only Flex:

Code:

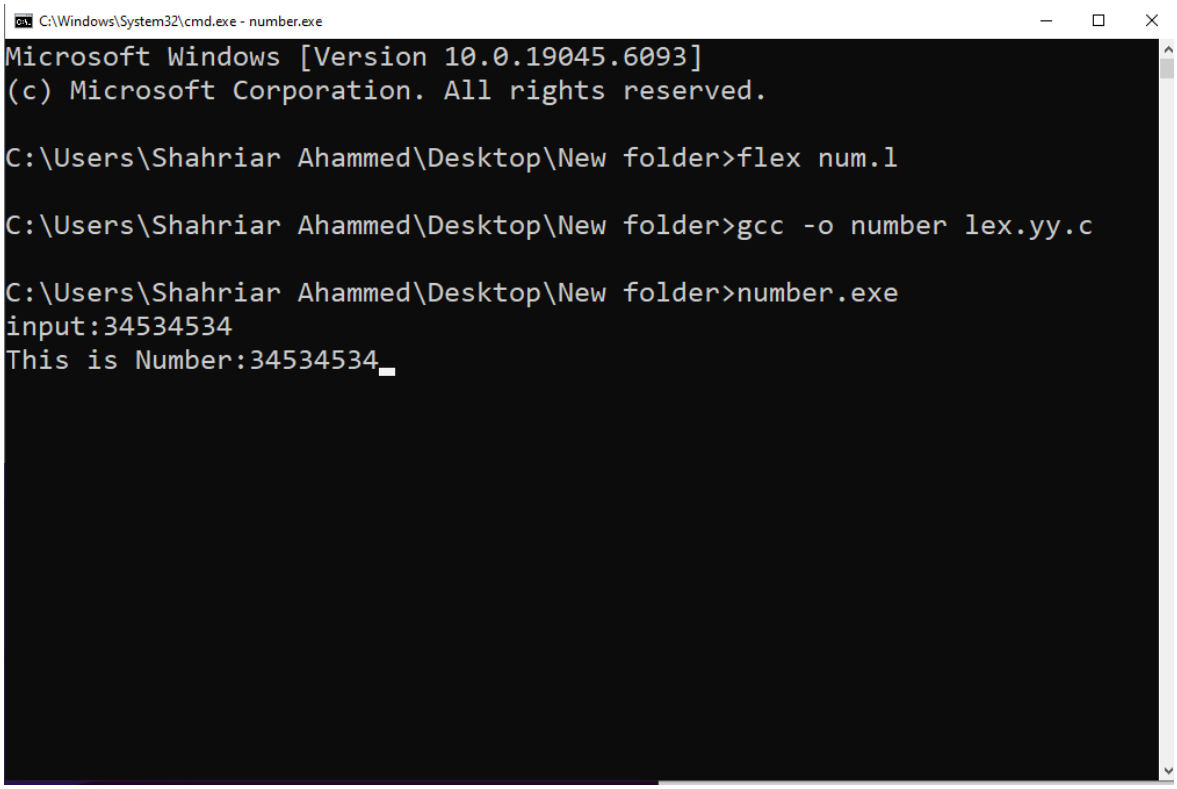
```
%{
#include<stdio.h>
%}

%%
[0-9]+ {printf("This is Number:%s",yytext);}
.|\n
%%

int main ()
{
printf("input:");
yylex();
return 0;
}

int yywrap()
{
return 1;
}
```

Output:



3. **Find valid identifiers word, number and symbols using only Flex:**

Code :

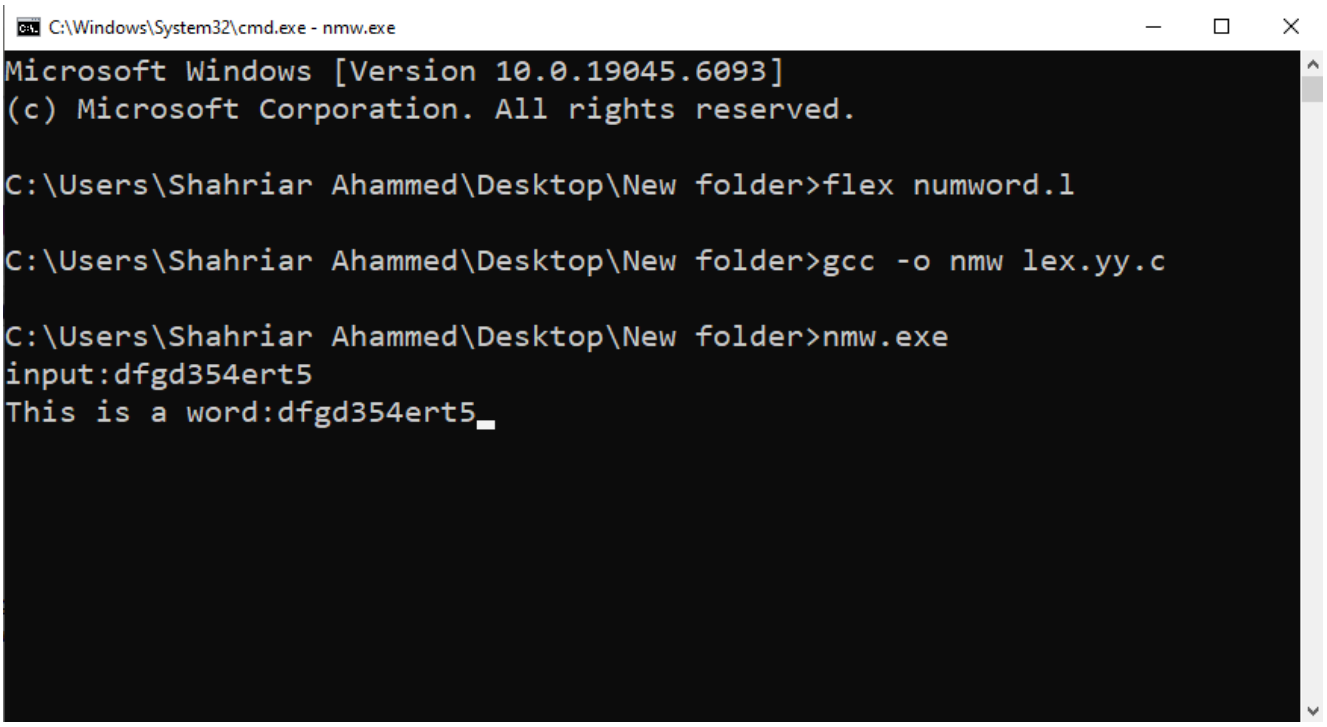
```
%{
#include<stdio.h>
%}

%%
[a-zA-Z_][a-zA-Z0-9_]* {printf("This is a word:%s",yytext);}
.|\n
%%

int main ()
{
printf("input:");
yylex();
return 0;
}

int yywrap()
{
return 1;
}
```

Output:



4. **Identifying valid Email using only Flex:**

Code:

```
%{
#include<stdio.h>
%}

%%
[a-z0-9._]+@[a-z.]+\.[a-z]+ {printf("This is a Email:%s",yytext);}
.|\n
%%

int main ()
{
printf("input:");
yylex();
return 0;
}

int yywrap()
{
return 1;
}
```

Output: