



Symbiosis Institute of Technology, Pune

Faculty of Engineering

CSE- Academic Year 2025-26

Compiler Construction Lab Batch 2022-26

Lab Assignment No: - 12	
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Batch	22-26
Class	CS-B1
Academic Year & Semester	25-26 7 th
Date of Performance	15-10-2025
Title of Assignment	LEX program to check a valid email address.
Practice Questions	<ol style="list-style-type: none"> 1. LEX program to check a valid email address. 2. LEX program for checking all domain types email addresses.
Source Code	<pre> 1. Check a valid email address. %{ #include <stdio.h> %} %% [a-zA-Z0-9_]+@[a-zA-Z0-9]+\.[a-zA-Z]{2,4} { printf("Valid Email Address\n"); } \n {} . { printf("Invalid Email Address\n"); } %% int main() { printf("Enter an email address: "); yylex(); return 0; } int yywrap() {</pre>

	<pre> return 1; } 2.Check all domain types email addresses %{ #include <stdio.h> %} %% [a-zA-Z0-9_.]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,} { printf("Valid Email Address (All Domain Types)\n"); } \n {} . { printf("Invalid Email Address\n"); } %% int main() { printf("Enter an email address: "); yylex(); return 0; } int yywrap() { return 1; } </pre>
Output Screenshot	<p>1.Valid Email address</p>  <pre> kshitij@ubuntuhost:~/Desktop/ccl\$ lex pro12a.l kshitij@ubuntuhost:~/Desktop/ccl\$ gcc lex.yy.c kshitij@ubuntuhost:~/Desktop/ccl\$./a.out Enter an email address: test@gmail.com Valid Email Address </pre> <p>2.Check domains of all types</p>  <pre> kshitij@ubuntu:~\$ lex pro12b.l kshitij@ubuntu:~\$ gcc lex.yy.c kshitij@ubuntu:~\$./a.out Enter an email address: kshitij@sitpune.edu.in Valid Email Address (All Domain Types) ^C kshitij@ubuntu:~\$./a.out Enter an email address: sample@kshitij.co.in Valid Email Address (All Domain Types) ^C kshitij@ubuntu:~\$ </pre>
Post lab questions	<p>1. LEX program for checking all domain types email addresses through file handling concept.</p>

```

%{
#include <stdio.h>
}%

%%
[a-zA-Z0-9_.]+@[a-zA-Z0-9.-]+\.[a-zA-Z]{2,}    { printf("%s : Valid Email
Address\n", yytext); }
[^\n]+                                         { printf("%s : Invalid Email Address\n",
yytext); }
%%

int main(int argc, char *argv[]) {
    if (argc != 2) {
        printf("Usage: %s <input_file>\n", argv[0]);
        return 1;
    }

    FILE *fp = fopen(argv[1], "r");
    if (!fp) {
        perror("Error opening file");
        return 1;
    }

    yyin = fp;
    yylex();
    fclose(fp);
    return 0;
}

int yywrap() {
    return 1;
}

```

```

test@ubuntu:~$ lex pro12c.l
test@ubuntu:~$ gcc lex.yy.c
test@ubuntu:~$ ./a.out emails.txt
test@gmail.com : Valid Email Address

hello@company.org : Valid Email Address

abc@xyz : Invalid Email Address

user.name@sub.domain.co.in : Valid Email Address

invalid@mail.com : Invalid Email Address

```

Conclusion	We learnt to implement LEX to check valid email addresses with different domains and with file handling
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