Department Of Computer Science Engineering

**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY SONEPAT**

(An Institute of National Importance)

# CD Lab

**Sub Code – UCS 066**
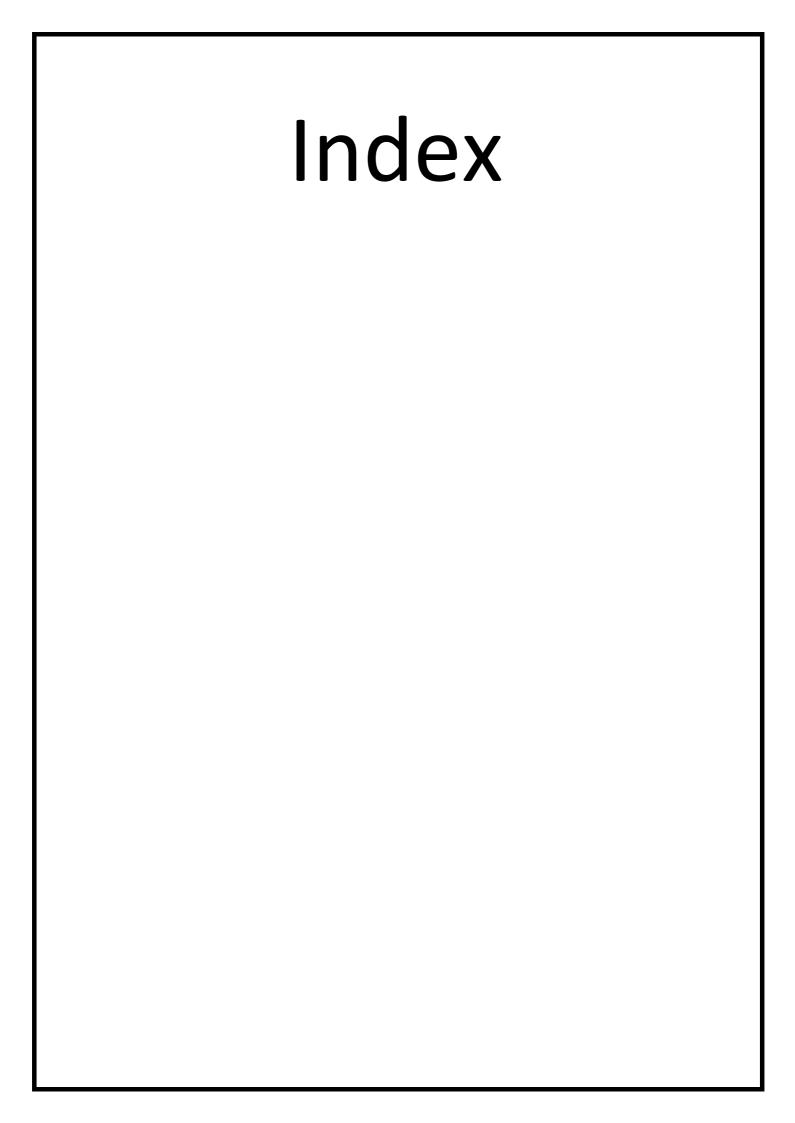
**Submitted To**

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CSE A

# Index

**Lab 1**
**Q. Validate the arithmetic expression**

```cpp
#include<iostream>
#include <regex>
using namespace std;

int main(){
    int validty = 1;
    string exp;

    regex valid("[[+-/*]*[0-9]*]*");
     cout<<"enter the string : ";
     cin>>exp;

    if(exp[exp.size()-1] =='+'||exp[exp.size()-1] =='-'||exp[exp.size()-1]
=='/'||exp[exp.size()-1] =='*'){
        cout<<"invalid expression";
        validty == 0;
        return 0;
    }

        for(int i = 1;i<exp.size()-1;i++){
            if(validty == 0) break;

        if(exp[i]=='/' || exp[i] == '*' ||  exp[i]=='-' || exp[i] == '+'){
            if(exp[i+1]=='/' || exp[i+1] == '*' ){
                cout<<"invalid expression";
                return 0;
            }
        }
     }
    }

     cout<<"valid expression";

    return 0;
}
```

```
PS D:\Coding> cd "d:\Coding\cdLab\" ; if ($?) { g++ cdLab1.cpp -o cdLab1 } ; if ($?) { .\cdLab1 }
enter the string : 3+/4
invalid expression
PS D:\Coding\cdLab>
```

```
PS D:\Coding> cd "d:\Coding\cdLab\" ; if ($?) { g++ cdLab1.cpp -o cdLab1 } ; if ($?) { .\cdLab1 }
enter the string : /3+2-8
invalid expression
PS D:\Coding\cdLab>
```