LAB # 05: DECISION MAKING PROGRAMMING USING SWITCH STATEMENT

TASK # 01 LAB TASK: 1.

By using Visual Studio create a project name lab 05 and then add .cpp file. Now write a program that is given below. Execute it and check the output of your program.

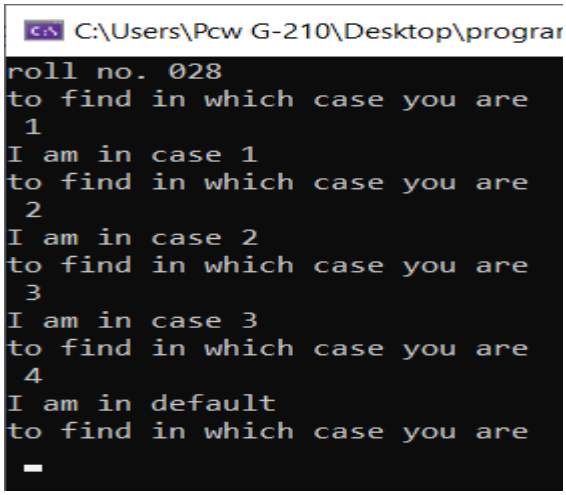
SOURCE CODE:

```
# include <iostream>
using namespace std;
int main()
{
    cout << "roll no. 028\n";
A:
    cout << "to find in which case you are \n ";
        int a = 2;
    cin >> a;
    switch (a)
    {
    case 1:
        cout << "I am in case 1 \n"; break;
    case 2:
        cout << "I am in case 2 \n"; break;
    case 3:
        cout << "I am in case 3 \n"; break;
    default:
        cout << "I am in default \n"; break;
     }


goto A;

    return 0;
}
```

Output :



TASK # 02 LAB TASK: 2

. By using Visual Studio create a project name lab 05 and then add .cpp file. Now write a program to create a simple Calculator using switch case.

SOURCE CODE:

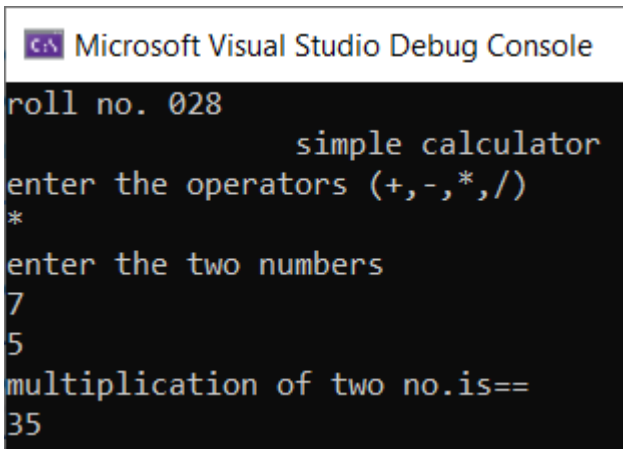
```cpp
# include <iostream>
using namespace std;
int main()
{
    cout << "roll no. 028\n";
    cout << "\t\tsimple calculator\n";
    char op;
    float num1, num2;

    cout << "enter the operators (+,-,*,/)\n";
    cin >> op;
    cout << "enter the two numbers\n";
    cin >> num1>> num2;
    switch (op)
    {
    case '+':
        cout << "addition of two no. is==\n" << num1+num2;
            break;
    case '-':
        cout << "sustraction of two no.is==\n" << num1 - num2;
        break;
    case'*':
        cout << "multiplication of two no.is==\n" << num1 * num2;
        break;
    case'/':
            cout << "division of two no.is==\n" << num1/num2;
    default:
        cout << "you enter wrong operatot\n";
        break;

    }

    return 0;
}
```

Output :



TASK # 03 LAB TASK: 3

. By using Visual Studio create a project name lab 05 and then add .cpp file. Now write a program print total no. of days in a month using switch case.

SOURCE CODE:

```
# include <iostream>
using namespace std;
int main() {
    cout << "roll no.28\n";
A:
    int month, days;
    cout << "enter month number I'll tell you total no. of days in taht particular month\n";
    cin >> month;
    switch(month)
    {
    case 1:
        cout << "january=31 days\n";break;
    case 2:
        cout << "febuary=28 or 29 days\n";break;
     case 3:
         cout << "march=31 days\n";break;
     case 4:
         cout << "april=30 days\n"; break;
     case 5:
         cout << "may=31 days\n"; break;
     case 6:
         cout << "june=30 days\n"; break;
     case 7:
         cout << "july=31 days\n";break;
     case 8:
         cout << "august=31 days\n"; break;
     case 9:
         cout << "september=30 days\n"; break;
     case 10:
         cout << "octuber=31 days\n"; break;
     case 11:
         cout << "november=30 days\n"; break;
     case12:
         cout << "december=3 days\n"; break;
     default:
         cout << "you enter the wrong no. of month\n"; break;
    }
    goto A;

    return 0;
}
```

Output :

```
C:\Users\Pcw G-210\Desktop\programing\no.day switch\x64\Debug\no.day switch.exe
roll no.28
enter month number I'll tell you total no. of days in taht particular month
5
may=31 days
enter month number I'll tell you total no. of days in taht particular month
11
november=30 days
enter month number I'll tell you total no. of days in taht particular month
```

TASK # 04 LAB TASK: 4.

By using Visual Studio create a project name lab 05 and then add .cpp file. Now write a program for for basics mathematical function(+,-,*,/)using switch case. Also write “goto” operator to continue program.

SOURCE CODE:

```
# include <iostream>
using namespace std;
int main()
{
    cout << "roll no. 028\n";
    A:
    cout << "\t\tsimple calculator\n";
    char op;
    float num1, num2;

    cout << "enter the operators (+,-,*,/)\n";
    cin >> op;
    cout << "enter the two numbers\n";
    cin >> num1>> num2;
    switch (op)
    {
    case '+':
        cout << "addition of two no. is==\n" << num1+num2;
            break;
    case '-':
        cout << "sustraction of two no.is==\n" << num1 - num2;
        break;
    case'*':
        cout << "multiplication of two no.is==\n" << num1 * num2;
        break;
    case'/':
            cout << "division of two no.is==\n" << num1/num2;
    default:
        cout << "you enter wrong operatot\n";
        break;

    }
    goto A;
    return 0;
}
```

Output :

```
C:\Users\Pcw G-210\Desktop\programing\
roll no. 028
                simple calculator
enter the operators (+,-,*,/)
+
enter the two numbers
7
8
addition of two no. is==
15              simple calculator
enter the operators (+,-,*,/)

*
enter the two numbers
7
5
multiplication of two no.is==
35              simple calculator
enter the operators (+,-,*,/)
```

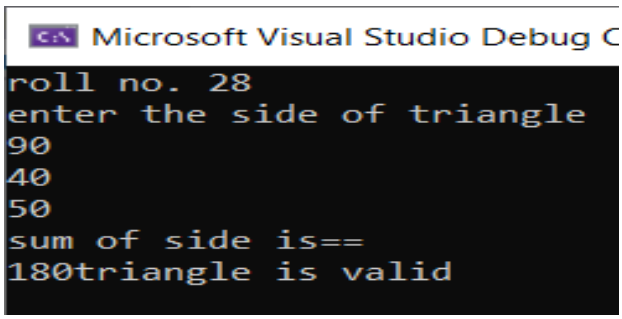
TASK # 05 LAB TASK: 5.

By using Visual Studio create a project name lab 05 and then add .cpp file. Now write a program to take the value from user as input all sides of triangle and check whether the triangle is valid or not. Using switch statement.

SOURCE CODE:

```
# include <iostream>
using namespace std;
int main() {
    cout << "roll no. 28\n";
A:
    int sidea , sideb, sidec;
    cout << "enter the side of triangle \n";
    cin >> sidea >> sideb >> sidec;
    int sum = 180;
    sum = sidea + sideb + sidec;
    cout << "sum of side is==\n" << sum;
    switch(sum)
    {
    case 180:
        cout << "triangle is valid\n"; break;
    default:
        cout << "triangle is not valid\n"; break;
    }
    return 0;
}
```

Output :



TASK # 06 LAB TASK: 6.

By using Visual Studio create a project name lab 05 and then add .cpp file. Now write a program to calculate percentage and grade.

SOURCE CODE:

```
# include <iostream>
# include <conio.h>
using namespace std;
int main()
{
    cout << "roll no. 28";
    A:
    int phy, math, ict;
    int total,percentage ;
    char letter_grade = 'z';
    cout << "enter score of phy ,math ,ict course" << endl;
    cin >> phy >> math >> ict;
    total = phy + math + ict;
    cout << "total==\n" << total;
    percentage = (total *100)/300;
    cout << "percentage==\n" << percentage;
    switch (( percentage/ 10))
    {
    case 9: {
        cout << "EXCELLLENT" << endl;
        letter_grade = 'A'; break; }
    case 8: {
        cout << "GOOD WORK" << endl;
        letter_grade = 'B'; break; }
    case 7: {
        cout << "BETTER AS COMPARED TO" << endl;
        letter_grade = 'C'; break; }
    case 6: {
        cout << "NEED HARD WORK " << endl;
        letter_grade = 'D'; break; }
    case 5:  case 4: case 3: case 2: case 1: {

        cout << "failed" << endl;
        letter_grade = 'F'; break; }
    default:
        cout << "its a wrong entry" << endl;
    }

    cout << "you secured grade" << letter_grade << endl;
    goto A;

    return 0;
}
```

Output :

```
C:\Users\Pcw G-210\Desktop\programing\grade sheet home
roll no. 28enter score of phy ,math ,ict course
70
90
80
total==
240percentage==
80GOOD WORK
you secured gradeB
enter score of phy ,math ,ict course
```