INDEX

NAME: Syed obaid hashmi   **SEC:** A   **ROLL NO**: CS-030   **COURSE**: PROGRAMMING FUND/T

S.NO:	DATE	TILTE	WEEK WISE TASK	TEACHER'S : Sign/Remarks
1	3-11-2020	TASK#1 IF ELSE	Week#05	
2	10-11-2020		Week#06	
3	24 -11-2020	TASK#2 FUNCTIONS	Week #07	
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				

TASK# 1

Q1
CREAT YOUR INTERMEDIATE MARKSHEET USING IF ELSE :

```cpp
#include "stdafx.h"
#include <iostream>
#include <string>
#include <conio.h>

using namespace std ;


void main()
{
	//Variable decleration
	string name,father_name ,roll_number,college , board ;
	float percentage,total_numbers,sub1,sub2,sub3,sub4,sub5;
	string grade1,grade2,grade3,grade4,grade5,tgrades;

	////Inputs field
	cout << " Enter your name: ";
	cin >> name;

	cout << "Enter your father name:  " ;
	cin>> father_name;

	cout << "Enter your roll number: ";
	cin>> roll_number;

	cout << "Enter your college: ";
	cin >> college;

	cout << "Enter your board: ";
	cin >> board;

	cout << "Enter your maths marks ";
	cin >> sub1;

	cout << "Enter your english marks ";
	cin >> sub2;

	cout << "Enter your physics marks ";
	cin >> sub3;

	cout << "Enter your chemistry marks ";
	cin >> sub4;

	cout <<  "Enter your urdu marks";
	cin >> sub5;

	////Percentage calculation
	total_numbers = sub1+sub2+sub3+sub4+sub5 ;
```

```c
    percentage = (total_numbers/500)*100;

//grade of sub1

    if (sub1 >=80)
    {
      grade1='A';
    }
    else if (sub1 >=60)
    {
    grade1='B';
    }
    else if ( sub1 >= 40)
    {
    grade1='C';
    }
    else if ( sub1 < 40 )
    {
    grade1='F';
    }


    ////grade of sub2
          if (sub2 >=80)
    {
      grade2='A';
    }
    else if (sub2 >=60)
    {
    grade2='B';
    }
    else if ( sub2 >= 40)
    {
    grade2='C';
    }
    else if ( sub2 < 40 )
    {
    grade2='F';
    }
    //grade of sub3
          if (sub3 >=80)
    {
      grade3='A';
    }
    else if (sub3 >=60)
    {
    grade3='B';
    }
    else if ( sub3 >= 40)
    {
    grade3='C';
    }
    else if ( sub3 < 40 )
    {
    grade3='F';
    }
    //grade of sub4
          if (sub4 >=80)
    {
      grade4='A';
    }
    else if (sub4 >=60)
    {
    grade4='B';
```

```cpp
        }
        else if ( sub4 >= 40)
        {
        grade4='C';
        }
        else if ( sub4 < 40 )
        {
        grade4='F';
        }

        //grade of sub5

            if (sub5 >=80)
        {
         grade5='A';
        }
        else if (sub5 >=60)
        {
        grade5='B';
        }
        else if ( sub5 >= 40)
        {
        grade5='C';
        }
        else if ( sub5 < 40 )
        {
        grade5 ='F';
        }



        ////Total grades

        if (percentage >=80)
        {
         tgrades='A';
        }
            else if (percentage >=60)
        {
        tgrades='B';
        }
        else if ( percentage >= 40)
        {
        tgrades='C';
        }
        else if ( percentage < 40 )
        {
        tgrades='F';
        }


cout<<"................................................................................................
.............";
    cout << "\t\t\t\t\t\t\tBoard:  " <<board<< endl;
        cout << "\t\t\t\t\t\tcollege:  " <<college<< endl;
        cout<<"................................................................................................
......................\n";
        cout<<"Name: "<<name;
cout<<"\t\t\t\t\t\t\t\t\tPercentage= " <<percentage<<" %"<<endl;

cout<<"\t\t\t\t\t\t\t\t\tTotal numbers= "<< sub1+sub2+sub3+sub4+sub5 <<endl;
        cout<<"Father name:" << father_name <<endl;
cout<<"\t\t\t\t\t\t\t\t\t\Grade= '" <<tgrades<< "'" <<endl;
```

```cpp
	cout << "roll_number:"<< roll_number << endl;



	cout<<".........................................................................................................\n";




	cout <<"Sub            Total marks             Marks obataind       Grade    \n";
	cout<<"_____\n";
	cout<<"Maths:          100       \t\t\t  "            <<sub1 <<    "\t\t"      <<grade1
<<endl  ;
	cout<<"English:        100         \t\t  "              <<sub2 <<    "\t\t"       <<grade2
<<endl  ;
	cout<<"Physics:        100       \t\t\t  "              <<sub3 <<   "\t\t"        <<grade3
<<endl  ;
	cout<<"Chemistry:      100       \t\t\t  "              <<sub4 <<   "\t\t"        <<grade4
<<endl  ;
	cout<<"Urdu:           100       \t\t\t  "              <<sub5 <<   "\t\t"        <<grade5
<<endl  ;



	_getch();

}
```

OUTPUT:

```
C:\Users\HASHMI\Documents\Visual Studio 2012\Projects\ConsoleApplication6\Debug\ConsoleApplication6.exe

 Enter your name: Syed_obaid
Enter your father name:  Syed_abdul_imran
Enter your roll number: CS-030
Enter your college: SRE-Majeed
Enter your board: KARACHI_BOARD
Enter your maths marks 84
Enter your english marks 67
Enter your physics marks 92
Enter your chemistry marks 75
Enter your urdu marks63
....................................................................................................
                                            Board:  KARACHI_BOARD
                                            college:  SRE-Majeed
....................................................................................................
Name: Syed_obaid                                                   Percentage= 76.2 %
                                                         Total numbers= 381
Father name:Syed_abdul_imran
                                                         Grade= 'B'
roll_number:CS-030
....................................................................................................
Sub              Total marks              Marks obataind      Grade

Maths:              100                        84             A
English:            100                        67             B
Physics:            100                        92             A
Chemistry:          100                        75             B
Urdu:               100                        63             B
```

Q2
CREAT A SIMPLE CALCULATOR.

```cpp
int choice;
int num1, num2, x;


    cout << "Please choose your option:"<< endl;

  cout <<"1 = +"<<endl;


  cout <<"2 = -"<<endl;


  cout <<"3 = *"<<endl;


  cout <<"4 = DIV /"<<endl;


  cout <<"5 =**Squares"<<endl;
  cout <<"6 =exit"<<endl;
```

```cpp
cout <<  "\n\nChoice: ";
cin >> choice;


while(choice < 1 || choice > 6)
{
    cout << "\nPlease choose the above mentioned option."
            "\nChoice: ";
    cin >> choice;
}

switch (choice)
{
    //Addition
    case 1:
        cout << "Enter two numbers: \n";
        cin >> num1 >> num2;
        x = num1 + num2;
        cout << "Sum = " << x;
        break;

    //Subtraction
    case 2:
        cout << "Enter two numbers: \n";
        cin >> num1 >> num2;
        x = num1 - num2;
        cout << "Subtraction = " << x;
        break;

    //Multiplication
    case 3:
        cout << "Enter two numbers: \n";
        cin >> num1 >> num2;
        x = num1 * num2;
        cout << "Product = " << x;
        break;

    //Division
    case 4:
        cout << "Enter Dividend: ";
        cin >> num1;
        cout << "Enter Divisor: ";
        cin >> num2;

        //while loop checks for divisor whether it is zero or not
        while(num2 == 0)
        {
            cout << "\nDivisor cannot be zero."
                    "\nEnter divisor : ";
            cin >> num2;
        }
        x = num1 / num2;
        cout << "\nQuotient = " << x;
        break;

    //Square
    case 5:
        cout << "Enter any number: \n";
        cin >> num1;
        x = num1 * num1;
        cout << "Square = " << x;
        break;

    case 6:
```
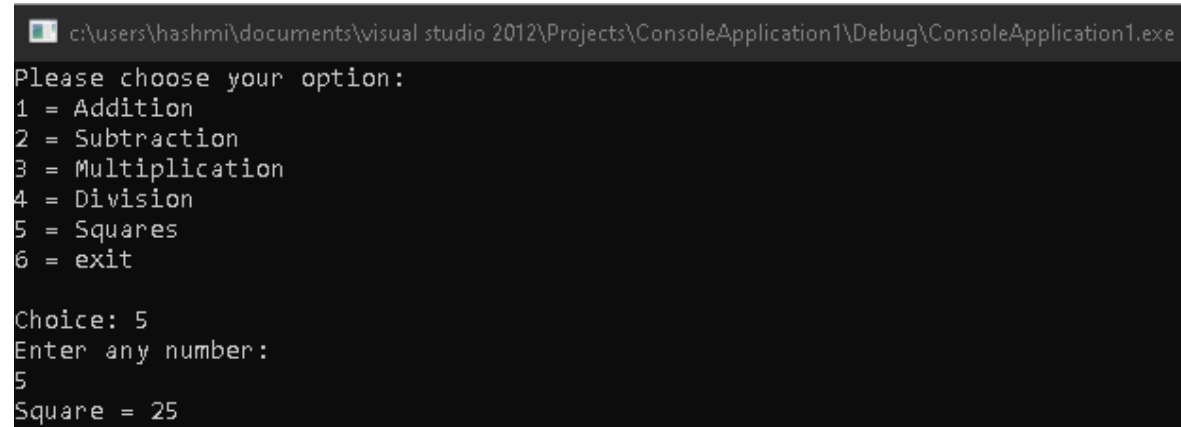
```
        default: cout << "\nError";
    }



        _getch();
}
```

OUTPUT:


```
c:\users\hashmi\documents\visual studio 2012\Projects\ConsoleApplication1\Debug\ConsoleApplication1.exe
Please choose your option:
1 = Addition
2 = Subtraction
3 = Multiplication
4 = Division
5 = Squares
6 = exit

Choice: 5
Enter any number:
5
Square = 25
```

TASK#2

FUNCTIONS

Q1

```cpp
#include "stdafx.h"
#include <iostream>
#include <string>
#include <conio.h>

using namespace std ;


void marksheet(string name,string father_name ,string roll_number, string college ,string  board)
{
	//Variable decleration

	float percentage,total_numbers,sub1,sub2,sub3,sub4,sub5;
	string grade1,grade2,grade3,grade4,grade5,tgrades;

	////Inputs field


	cout << "Enter your maths marks ";
	cin >> sub1;

	cout << "Enter your english marks ";
	cin >> sub2;

	cout << "Enter your physics marks ";
	cin >> sub3;

	cout << "Enter your chemistry marks ";
	cin >> sub4;

	cout <<  "Enter your urdu marks";
	cin >> sub5;

	//Percentage calculation
	total_numbers = sub1+sub2+sub3+sub4+sub5 ;

	percentage = (total_numbers/500)*100;

   //grade of sub1

	if (sub1 >=80)
```

```
{
 grade1='A';
}
else if (sub1 >=60)
{
grade1='B';
}
else if ( sub1 >= 40)
{
grade1='C';
}
else if ( sub1 < 40 )
{
grade1='F';
}


////grade of sub2
        if (sub2 >=80)
{
 grade2='A';
}
else if (sub2 >=60)
{
grade2='B';
}
else if ( sub2 >= 40)
{
grade2='C';
}
else if ( sub2 < 40 )
{
grade2='F';
}
//grade of sub3
        if (sub3 >=80)
{
 grade3='A';
}
else if (sub3 >=60)
{
grade3='B';
}
else if ( sub3 >= 40)
{
grade3='C';
}
else if ( sub3 < 40 )
{
grade3='F';
}
//grade of sub4
        if (sub4 >=80)
{
 grade4='A';
}
else if (sub4 >=60)
{
grade4='B';
}
else if ( sub4 >= 40)
{
grade4='C';
}
```

```cpp
        else if ( sub4 < 40 )
        {
        grade4='F';
        }

        //grade of sub5

                if (sub5 >=80)
        {
         grade5='A';
        }
        else if (sub5 >=60)
        {
        grade5='B';
        }
        else if ( sub5 >= 40)
        {
        grade5='C';
        }
        else if ( sub5 < 40 )
        {
        grade5 ='F';
        }



        ////Total grades

        if (percentage >=80)
        {
         tgrades='A';
        }
                else if (percentage >=60)
        {
        tgrades='B';
        }
        else if ( percentage >= 40)
        {
        tgrades='C';
        }
        else if ( percentage < 40 )
        {
        tgrades='F';
        }


cout<<".....................................................................................
.............";
    cout << "\t\t\t\t\t\t\t\tBoard:  " <<board<< endl;
        cout << "\t\t\t\t\t\tcollege:  " <<college<< endl;
        cout<<".....................................................................................
........................\n";
        cout<<"Name: "<<name;
cout<<"\t\t\t\t\t\t\t\t\tPercentage= " <<percentage<<" %"<<endl;

cout<<"\t\t\t\t\t\t\t\t\tTotal numbers= "<< sub1+sub2+sub3+sub4+sub5 <<endl;
        cout<<"Father name:" << father_name <<endl;
cout<<"\t\t\t\t\t\t\t\t\tGrade= '" <<tgrades<< "'" <<endl;

        cout << "roll_number:"<< roll_number << endl;
```

```cpp
        cout<<".............................................................................
.......................\n";




        cout <<"Sub             Total marks                      Marks obataind      Grade     \n";
        cout<<"_____\n";
        cout<<"Maths:          100          \t\t\t   "                    <<sub1 <<    "\t\t"      <<grade1
<<endl  ;
        cout<<"English:        100            \t\t  "                        <<sub2 <<    "\t\t"      <<grade2
<<endl  ;
        cout<<"Physics:        100          \t\t\t  "                        <<sub3 <<    "\t\t"      <<grade3
<<endl  ;
        cout<<"Chemistry:      100          \t\t\t  "                        <<sub4 <<    "\t\t"      <<grade4
<<endl  ;
        cout<<"Urdu:           100          \t\t\t  "                        <<sub5 <<    "\t\t"      <<grade5
<<endl  ;




        _getch();

}


void main()
{
        string name, father_name , roll_number,  college , board;
        cout << " Enter your name: ";
        cin >> name ;

        cout << "Enter your father name:   " ;
        cin>> father_name ;

        cout << "Enter your roll number: ";
        cin>> roll_number;

        cout << "Enter your college: ";
        cin >> college;

        cout << "Enter your board: ";
        cin >> board;




        marksheet( name, father_name , roll_number,  college ,  board);

}
```

Q2

```cpp
//Addition

void sum()

{
int num1,num2,x;

cout << "Enter two numbers: \n";
cin >> num1 >> num2;
 x = num1 + num2;
 cout << "Sum = " << x;

 }


//    //Subtraction

void sub()
  {
        int num1,num2,x;
        cout << "Enter two numbers";
        cin >> num1 >> num2;
        x = num1 - num2;
        cout << "Subtraction = " << x;
    }


//    //Multiplication

    void mult()
      {
        int num1,num2,x;
        cout << "Enter two numbers: \n";
        cin >> num1 >> num2;
        x = num1 * num2;
      cout << "Product = " << x;
        }
//    Division
    void division()
      {
        int num1,num2,x;
    cout << "Enter Dividend: ";
```

```cpp
        cin >> num1;
        cout << "Enter Divisor: ";
        cin >> num2;

        //while loop checks for divisor whether it is zero or not
        while(num2 == 0)
        {
            cout << "\nDivisor cannot be zero."
                    "\nEnter divisor : ";
            cin >> num2;
        }
        x = num1 / num2;
        cout << "\nDIV = " << x;


        }


        //Square
        void square( )
        {
            int num1,num2,x;
        cout << "Enter any number: \n";
        cin >> num1;
        x = num1 * num1;
        cout << "Square = " << x;
            }


//}



void main()
{
        int choice;

        cout << "Please choose your option:"<< endl;

        cout <<"1 = ADDITION "<<endl;

        cout <<"2 = subtraction "<<endl;

        cout <<"3 = multiplication "<<endl;

        cout <<"4 = Division /"<<endl;

        cout <<"5 =**Squares"<<endl;

        cout <<"6 =invalid!!"<<endl;
        cout <<  "\n\nChoice: ";
        cin >> choice;

    while(choice< 1 || choice > 6)
    {
        cout << "\nPlease choose the option."
```

```cpp
            "\nChoice: ";
            cin >> choice
}


    switch (choice)

    {
    case 1:

        sum();
        break;



     case 2:
         sub();
         break;

     case 3:
         mult();
          break;

     case 4:
         division();
         break;

     case 5:
          square();
          break;


       case 6:

      default: cout << "\nError";
    }


    _getch();

        }
```