



PF LAB ASSGNMENT NO 1

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ROLL NO: 19P-0012

SUBMITTED TO: MISS SAFIA FATIMA



TASK 1

```
#include<iostream>

#include<string>

using namespace std;

int main()
{
    string bday;
    int date;

    cout<<"enter your date of birth :";
    cin>>date;

    cout<<"enter your month of birth :";
    cin>>bday;

    if(((date>=21 || date<=31) && bday=="march") || ((date>=1 ||
date<=20) && bday=="april"))
    {
        cout<<"your Astrological sign is: Aries"<<endl;
    }

    else if(((date>=21 || date<=30) && bday=="april") || ((date>=1 ||
date<=20) && bday=="may"))
    {
        cout<<"your Astrological sign is: Taurus"<<endl;
    }

    else if(((date>=21 || date<=31) && bday=="may") || ((date>=1 ||
date<=20) && bday=="june"))
    {
```

```

        cout<<"your Astrological sign is: Gemini"<<endl;
    }

    else if(((date>=21 || date<=30) && bday=="june") || ((date>=1 ||
date<=22) && bday=="july"))
    {
        cout<<"your Astrological sign is: Cancer"<<endl;
    }

    else if(((date>=23 || date<=31) && bday=="july") || ((date>=1 ||
date<=22) && bday=="august"))
    {
        cout<<"your Astrological sign is: Leo"<<endl;
    }

    else if(((date>=23 || date<=31) && bday=="august") || ((date>=1 ||
date<=22) && bday=="september"))
    {
        cout<<"your Astrological sign is: Virgo"<<endl;
    }

    else if(((date>=23 || date<=30) && bday=="september") ||
((date>=1 || date<=22) && bday=="october"))
    {
        cout<<"your Astrological sign is: Libra"<<endl;
    }

    else if(((date>=23 || date<=31) && bday=="october") || ((date>=1 ||
date<=22) && bday=="november"))
    {
        cout<<"your Astrological sign is: Scorpio"<<endl;
    }

```

```

    }

    else if(((date>=23 || date<=30) && bday=="november") || ((date>=1
|| date<=21) && bday=="december"))

    {

        cout<<"your Astrological sign is: Sagittarius"<<endl;

    }

    else if(((date>=22 || date<=31) && bday=="december") || ((date>=1
|| date<=19) && bday=="january"))

    {

        cout<<"your Astrological sign is: Capricorn"<<endl;

    }

    else if(((date>=20 || date<=31) && bday=="january") || ((date>=1 ||
date<=19) && bday=="feburary"))

    {

        cout<<"your Astrological sign is: Aquarius"<<endl;

    }

    else if(((date>=20 || date<=29) && bday=="feburary") || ((date>=1
|| date<=20) && bday=="march"))

    {

        cout<<"your Astrological sign is: Pisces"<<endl;

    }

    else

    {

        cout<<"your input is wrong"<<endl;

    }

    system("pause");

```

```
        return 0;
    }
```

TASK 2

```
#include<iostream>

#include<cmath>

using namespace std;

int main()
{
    int x1,x2,x3,x4,x5,x6,x7,x8,x9,x10;

    double mean,sum;

    float stdv;

    cout<<"Enter the tan number :";

    cin>>x1>>x2>>x3>>x4>>x5>>x6>>x7>>x8>>x9>>x10;

    mean=(x1+x2+x3+x4+x5+x6+x7+x8+x9+x10)/10.0;

    cout<<"mean="<<mean<<endl;

    sum=((mean-x1)+(mean-x2)+(mean-x3)+(mean-x4)+(mean-x5)+(mean-
x6)+(mean-x7)+(mean-x      8)+(mean-x9)+(mean-x10))/10.0;

    stdv=sqrt(sum);

    cout<<"sum="<<sum<<endl;

    cout<<"standarsd division ="<<stdv;

    system("pause");

    return 0;

}
```

TASK 3

```
#include<iostream>

#include<string>

using namespace std;

int main()
{
    int rollno , x , y , z , total;

    double per;

    string name , division;

    cout<<"enter roll no of student:";

    cin>>rollno;

    cout<<"enter name of student:";

    cin>>name;

    cout<<"marks in physics :";

    cin>>x;

    cout<<"marks in chemistry :";

    cin>>y;

    cout<<"marks in computer application :";

    cin>>z;

    total=x+y+z;

    per=(total/300.0)*100;


    cout<<"Roll No :"<<rollno<<endl;

    cout<<"name of student :"<<name<<endl;
```

```
    cout<<"marks in Physics :"<<x<<endl;
    cout<<"marks in Chemistry :"<<y<<endl;
    cout<<"marks in Computer Application :"<<z<<endl;
    cout<<"Total marks :"<<total<<endl;
    cout<<"percentage :"<<per<<endl;
    if(per>=60.00)
    {
        cout<<"division : first"<<endl;
    }
    else if(per<=59.99 && per>=45.00)
    {
        cout<<"division : second"<<endl;
    }
    else if(per<=44.99 && per>=33.00)
    {
        cout<<"division : third"<<endl;
    }
    else if(per<=32.99)
    {
        cout<<"fail"<<endl;
    }
    system("pause");
    return 0;
}
```

TASK 4

```
#include<iostream>

using namespace std;

int main()
{
    int x , y;
    cout<<"enter co-ordinate of x-axis :";
    cin>>x;
    cout<<"enter co-ordinate of y-axis :";
    cin>>y;
    if(x>0 && y>0)
    {
        cout<<"point lies in first quadrant"<<endl;
    }
    else if(x<0 && y>0)
    {
        cout<<"point lies in first quadrant"<<endl;
    }
    else if(x<0 && y<0)
    {
        cout<<"point lies in first quadrant"<<endl;
    }
    else if(x>0 && y<0)
    {
```



```
        cout<<"point lies in first quadrant"<<endl;
    }
    system("pause");
    return 0;
}
```

TASK 5

```
#include<iostream>
using namespace std;
int main()
{
    int age;
    cout<<"enter your age :";
    cin>>age;
    if(age>=20)
    {
        cout<<"you are eligible for vote casting"<<endl;
    }
    else
    {
        cout<<"you are not eligible for vote casting"<<endl;
    }
    system("pause");
    return 0;
}
```

```
}
```

TASK 6

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
char choice;
```

```
int hours;
```

```
cout<<"Conversion of Time between two notations\nChoices:\n 1: 24-Hour to 12-Hour\n 2: 12-Hour Notation to 24-Hour\n Press 1 or 2 to choose your choice"<<endl;
```

```
cin>>choice;
```

```
cout<<"Enter Hours beween 0-23 :";
```

```
cin>> hours;
```

```
if(hours>=24 || hours<0)
```

```
{
```

```
cout<<"You have entered the wrong hours"<<endl;
```

```
}
```

```
if(choice=='1' && hours > 12)
```

```
{
```

```

hours-=12;
cout<<"24 Hours to 12 Hours Format= "<<hours<<"AM"<<endl;
}

else if(choice=='2' && hours < 12)
{
hours+=12;
cout<<"12 Hours to 24 Hours Format= "<<hours<<"PM"<<endl;
}

else{}

system("pause");
return 0;
}

```

TASK 7

```

#include<iostream>
using namespace std;
int main()
{
    char option;
    float cost=10000;
    float Membershipcost;

```

```

        cout<<"The senior citizen discount is 30%. "<<endl;

        cout<<"If the membership is bought and paid for 12 or more month , the
discount is 15%." <<endl;

        cout<<"If more than five personal training session are bought and paid for
the    discount on each session is 20."<<endl;

        cout<<"Press '1' for senior citizen "<<endl;

        cout<<"Press '2' for if paid for 12 or month"<<endl;

cout<<"Press '3' for if more than five personal training session are bought"<<endl;

        cout<<"Choose your option:";

        cin>>option;

        if(option=='1')
        {
                cost=cost*0.07;
        }
        else if(option=='2')
        {
                cost=cost*0.85;
        }
        else if(option=='3')
        {
cost=cost*0.08;
        }
        else
        {

                cout<<"Wrong option press"<<endl;

```

```
}  
Membershipcost=cost;  
cout<<"cost for you is:"<<Membershipcost<<endl;  
system("pause");  
return 0;  
}
```
