

LAB ASSIGNMENT-1

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BS-2

1. Write a program (WAP) to display "Hello World" on console display.

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

int main()
{
    cout<<"Hello World";
}
```

2. WAP to input an integer, decimal and character and display it.

```
#include <iostream>

using namespace std;

int main(){
    int i;
    float d;
    char c;

    cout<<"Enter an integer:"<<endl;
    cin>>i;
    cout<<"The integer you entered is- "<<i<<endl;

    cout<<"Enter a decimal number:"<<endl;
    cin>>d;
    cout<<"The decimal you entered is- "<<d<<endl;

    cout<<"Enter a character:"<<endl;
    cin>>c;
    cout<<"The character you entered is- "<<c<<endl;

    return 0;
}
```

3. WAP to add, subtract, multiply, divide numbers.

```
# include <iostream>
```

```
using namespace std;
```

```
int main() {
```

```
    char op;
```

```
    float num1, num2;
```

```
    cout << "Enter operator: +, -, *, / ";
```

```
    cin >> op;
```

```
    cout << "Enter two operands: ";
```

```
    cin >> num1 >> num2;
```

```
    switch(op) {
```

```
        case '+':
```

```
            cout << num1 << " + " << num2 << " = " << num1 + num2;
```

```
            break;
```

```
        case '-':
```

```
            cout << num1 << " - " << num2 << " = " << num1 - num2;
```

```
break;
```

```
case '*':
```

```
cout << num1 << " * " << num2 << " = " << num1 * num2;
```

```
break;
```

```
case '/':
```

```
cout << num1 << " / " << num2 << " = " << num1 / num2;
```

```
break;
```

```
default:
```

```
cout << "Error!";
```

```
break;
```

```
}
```

```
return 0;
```

```
}
```

4. Write a C++ program to print prime no of 1 to 300 numbers.

```
#include<iostream>

using namespace std;

int main(){
    int i, j, isPrime;
    for(i = 2; i <= 300; i++){
        isPrime = 0;
        for(j = 2; j <= i/2; j++){
            if(i % j == 0){
                isPrime = 1;
                break;
            }
        }

        if(isPrime==0)
            cout << i << " ";
    }

    return 0;
}
```

5. Write a C++ program that will ask for a temperature in Celsius and display it in degree Fahrenheit. $[F=9C/5+32]$

```
#include<iostream>

using namespace std;

int main(){
    float f,c;
    cout<<"Enter temperature in Celsius: ";
    cin>>c;
    f=((9*c)/5)+32;
    cout<<"Temperature in Fahrenheit is: "<<f;}
```

6. WAP to format console output using '\n', '\t', '\b' , endl, setw within cout statement

```
#include<iostream>
#include<iomanip>
using namespace std;

int main(){
    cout<<"Hi."<<"\t"<<"My name is\b Parnika."<<"\n"<<"I study in
Thapar."<<endl<<"Year-"<< setw(5)<<"2";
}
```

7. WAP to utilize assignment += and -= type operators.

```
#include<iostream>
#include<iomanip>
```

```
using namespace std;
```

```
int main(){  
    int a=5;  
    int b=16;  
    cout<<"a= "<<a<<endl;  
    a+=4;  
    cout<<"a= "<<a<<endl;  
    cout<<"a= "<<a<<endl;  
    a+=4;  
    cout<<"a= "<<a<<endl;  
    cout<<"b= "<<b<<endl;  
    b-=8;  
    cout<<"b= "<<b<<endl;  
  
}
```

8. WAP to swap two numbers using bitwise operator.

```
#include<iostream>
```

```
using namespace std;
```

```
int main()
```

```

{
    int a,b,x;
    a=18;
    b=27;
    x=a^b;
    b=b^x;
    a=x^b;
    cout<<"a="<<a<<" b="<<b;
    return 0;
}

```

9. Write a program to solve the following problem A library charges a fine for every book return late. For first 5 days the fine is 50 paise, for 6-10 days fine is one rupee and above 10 days fine is 5 rupees. If you return the book after 30 days your membership will be cancelled. WAP to accept no. of days the member is late to return the book and display the fine or appropriate message.

```

#include<iostream>
using namespace std;
int main()
{
    int days;
    float fine;
    cout<<"Enter the number of days- ";
    cin>>days;
    if(days>0 && days<=5)

```



```
fine= 0.50*days;
if(days>=6 && days <=10)
fine= 1*days;
if(days>10)
fine=5*days;
if(days>30){

cout<<"Your membership has been cancelled"<<endl;

}

cout<<"You have to pay a fine of Rs. "<<fine; }
```

10. WAP to display arithmetic operations using switch-case statement.

Switch case used in question 3.