



## C++ Experiment List

Simple programme in c++	
1	WAP to print hello world.
2	WAP to print sum and average of two variables (read value from user).
3	WAP to find factorial of given number.
4	WAP to print fibonacci series.
5	WAP to reverse given number
6	WAP to find sum of all digit of given number
7	WAP to print addition of n even number.
8	WAP to display ASCII value of character (scan character <<int(c))
9	WAP to find cube root of a number
10	WAP to find quotient and remainder
11	WAP to swap two numbers without using third variable
12	WAP to convert inches into feet. (1 feet = 12 inch)
13	WAP to convert days into years weeks and days
14	WAP to find square root of a number
15	WAP to convert binary number into decimal
16	Enter three subject, marks and find out total percentage or average. output should display like this, English = 87, Hindi = 78, SS = 90 Total = 255 Percentage = 85% use single cout statement.
17	WAP that reads two 3*3 matrixes and adds them. The program should also display the result in a 3*3 matrix
18	Make function power (), If m and n both passed then it will calculate $m^n$ otherwise by default it will find out square of m.
Operator:	
19	WAP to find the min and max number using ternary operator in c++. (two and three variable)
20	WAP to check whether the number is odd or even using ternary operator.
21	WAP to using scope resolution operator.
22	Find out addition, subtraction, multiplication and division operators with scope resolution operator of two integer number.
Manipulator:	
23	WAP to illustrate the use of manipulator.
24	WAP to print format output using manipulators. ____34 ____693 34.69
25	WAP to print format output using manipulators *****Basic*****1000 #Allowance#####700 ++++++total++++++17000
26	WAP to use of manipulators setw( ), setfill( ), setprecision( )



	<b>Call by value &amp; Call by Reference:</b>
27	WAP that show use of Reference variable
28	WAP to sum of all digit of given no using call by value
29	WAP to swap two variable (value) using call by value and call by reference
	<b>Inline function:</b>
30	Find out cube using Inline function.
31	Perform arithmetic operation using Inline function
32	WAP to multiply two number using Inline function
33	Making on outside using function inline and find out square
	<b>Default Argument &amp; Constant:</b>
34	Find out simple Interest using Default argument. If rate of interest not passed by default it should be 2.5%(rate).
35	Calculate area of circle with default argument and constant argument
36	create a class called SHAPE and find area of circle, square, rectangle and triangle using proper method and default argument
	<b>Function Overloading:</b>
37	Find out volume of cube(size*size*size), cylinder( $\pi r^2 h$ ), rectangular box(lbh) using function Overloading
38	Create power () function and find out square, cube, $m^n$ , using function overloading
39	WAP to adding operation of no. and strings with the help of function overloading
	<b>Class &amp; Object (Scope of class):</b>
40	Define a class Emp which include following data member and member function. -Data member: 1) Emp no 2) Name of employee 3) Name of department 4) salary -Member function: 1) To read a Employee no, name, department and salary. 2) To display Employee no, name, department, salary.
41	Define a class to represent a student record which include following data member and member function <b>Data Member:</b> 1) Enrollment no 2) Name of student 3) Name of course 4) Marks of 3 subject <b>Member function:</b> 1) To read a student record 2) To find total Marks 3) To display Result
42	WAP to create a class "Distance" and add two different distance, input from keyboard. Data member- feet and inch Member function - get(), add distance(argument)



43	Define a class 'employee' to store record of 100 employee of company X including following members Data member-Empid, Empname, Emp_dept member function - getdata( ), displaydata( )
44	WAP for various mathematical operation using class & object
45	WAP to find out Celsius to Fahrenheit using class & object class temperature { Int c,f; public:  void getdata(); void putdata( ); void convert( ); };
46	convert inch to feet and feet to inch using class & object
47	Enter hours and find out minutes and seconds using class and object
48	create a class called "Hotal" <u>private data members</u> -Rno (room no) -Name -charge(per day charges) -Days(no. of days to stay) <u>member function</u> -calculate( );(calculate and return the amount) -formula = days*charge <u>public members</u> -check in( )[enter Rno, Name, charge, days] -Displays( );[display Rno, Name, charges, days] -total amount as per the calculate( )function

### Array of object:

49	Using Array of object. (1)class student { int rollno ; char name[20]; int mark[5], total; float per;  public: void getdata(); void result( ); void putdata(); };	(2)class emp { int emp no; char name[25]; int basic salary; float da,hra,ra,gross;  public: void getdata(): void claculatedata( ); void putdata(); };
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	<b>Outside of Class Method:</b>
50	Get two value (Item no. and price) and display it using outside of class
51	WAP to find factorial by defining function outside the class
52	WAP to reverse the number by defining function outside the class
	<b>Friend Function:</b>
53	Find out minimum from three no. using friend function
54	Swapping of two values using friend function
55	Find out mean of two number using friend function $((a+b)/2)$
56	WAP to find greatest value from two different classes using friend function
57	create two classes DM and DB which stores value of distances. -DM stores distance in meters and centimeters -DB stores distances in feet and inches write a program that can read value for the class objects. Add an object of DM with another object of DB. use friend function to carry out additions operations and display result in meter and centimeter
58	create the classes named DATE and TIME. create a friend function which can act as a bridge between both the classes for finding date and time and make a proper method which can take seconds for finding Time and also day, month and years for finding Date
59	create two classes named "length" and "Distance" which can convert meter to Kilometer using friend function
	<b>Static Data member &amp; Function:</b>
60	WAP to count the total no. of created object using static member and static function
	<b>Object as an Argument:</b>
61	Create a class Time that display time in hour and minute form. create a method total time () which take time object as an argument and return a new object of time display total of both time object
62	WAP to find minimum from two values by passing object as argument. Passing input from keyboard. consider Name of class is Temp. Data member - int x; member function - Get(int n) Max Temp( )
63	Create a class Distance having data member feet and inches. Write a program to add to distance using object as function argument
	<b>Constructor &amp; Distructor:</b>
64	Define the class student which has name (char name [20] and age(int)) define the default constructor, member functions get_data( ) for taking the name and age of the student put_data( ) for displaying the data of student
65	create a class called shape which has private data member "area" which will be used to get value for finding area of square, rectangle and circle by using default, parameterized and copy constructor



66	<pre> class library {     char     bname[20];     float price;     char     putname[20];int     ISBN No;     public:         getdata(         );putdat(         ); }; implement using constructor </pre>
<b>Inheritance:</b>	
67	Write a program to calculate the area and perimeter of a rectangle using the concept of inheritance
68	<p>WAP to find maximum from two values using following multiple</p> <p><b>A</b> Data member : x function get_x( )</p> <p><b>B</b> Data member: y function get_y( )</p> <p><b>C</b> function max ( )</p>
69	WAP to create class student, sun, result for multilevel inheritance for student to read marks and display final result
70	<p>Define a class bank account with current and saving bank account as inherited classes. class bank account should have following data member: account number, name, balance amount and member function; to initialize the value, to deposit and withdraw amount after checking the minimum balance.</p> <pre> class bank {     int accountno;     char     name[20];int     bal;     public: getdata( );            putdata( );            withdraw(            );deposit( );            showbal( ); }; </pre>



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71	WAP for single inheritance <u>number</u> a , b getdata display <u>addition</u> sum( ) dispsum( )
72	WAP for single inheritance <u>Data</u> p,r,n getdata display <u>simple interest</u>  calculateinterest() display interest()
73	WAP to create user defined manipulators
74	WAP for multi-level <u>Employee</u>  Empno Name Basic salary <u>allowance</u> DA  HRA RA <u>total</u> gross salary



75	<p>WAP for Hybrid inheritance</p> <div> <div> <u>Person</u>  name  code </div> <div> <u>account</u>  salary </div> <div> <u>admin</u>  experience </div> <div> <u>information</u>  name  code  salary  experience </div> </div>
76	<p>WAP for Hierarchical Inheritance</p> <div> <div> <u>Account</u>  a/c no  name bal </div> <div> <u>withdraw</u>  withdraw amount </div> <div> <u>deposit</u>  deposit amount </div> </div>
77	<p>WAP for Multiple Inheritance</p> <div> <div> <u>Item</u>  Item no  Item name </div> <div> <u>item info</u>  price  quantity </div> <div> <u>amount</u> total  amount </div> </div>
<b>Virtual Class:</b>	
78	WAP to demonstrate the use of pure virtual function
<b>Virtual Function:</b>	
79	<p>WAP for pure virtual function</p> <div> <div> Shape  Width  height  getarea( ) -----&gt;make this function as pure  virtual function </div> <div> Rectangle  getsides( w,h)  getarea( )  Rectangle area= width * height  Triangle area= (width * height)/2 </div> <div> Triangle  getsides(w,h)  getarea( ) </div> </div>





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	<b>Operator Overloading:</b>
80	create TIME class that stores the hours, minute, and seconds overload the + operator so that the user can add two times. (binary operator)
81	operator overloading using unary operator (- -)
82	c++ program to concatenate two string objects using operator overloading
83	c++ program to overload the binary operators like +, -, *, /.
84	find area of two circles, which have different radius also find which area of circle is greater to overload > operator
	<b>Pointer:</b>
85	WAP to create class product having item name, code, and price and display product purchased by a person using pointer to object concept.
86	make on class name item using pointer to object and this pointer <u>Item</u> Item code <u>price</u> getdata() display()
	<b>File Handling:</b>
87	Read a line of string from user and write it into the file
88	Make one file and copy its content from that file to the another file
89	Read one file and count how many lines and words into that particular file
90	Read two file and merge its content into new file
91	Read a line of string from user reverse it and then write to the file
92	Read some no's from the file sort them in Ascending order and write to the another file