11. Programs using Templates, namespace and casting operators

CO4: Write generic programs and handle exceptions

1. Write a function template to find the biggest out of two numbers. Using this find the biggest out of 2 integer, 2 double values and two strings.
2. Write a function template to swap two numbers. Using this, swap 2 integers, 2 floats and 2 characters.
3. Write a function template to sort a set of numbers. Using this first sort the list of integers and then sort the list of floating point values.
4. Create a template class which has 2 members' mark1 and mark2. Have constructors to initialize these values and method total to calculate the sum of two marks. Test this template class by first having 2 integers as marks and then 2 floating point values as marks.
5. Create a simple Calculator to perform the four basic arithmetic operations addition (), subtraction (), multiplication (), and division () in C++ using a class template. The template of the class should have two variables whose values are passed at the time of object creation. The constructor of this class takes two arguments of generic datatypes.
6. Write a program for C++ Class Templates with Multiple Parameters and test it.
7. Create your own namespace and access the members and methods from the namespace without using 'using keyword.
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9. Write a program for nested namespace and test the same.
10. Write a program to test static_cast and dynamic_cast in C++.