# Lab Assignment - 10

1. Write a function template for finding the max, min, total, average value in the array. Include functions to perform each task.

2. Write a function template to perform binary search in an array.

3. Write a function template to perform sort in an array.

4. Write a class template to represent a generic vector. Include member functions to perform the following task
   - ❑ To create the vector
   - ❑ To modify the value of a given element
   - ❑ To multiply by a scalar value
   - ❑ To display the vector in the form (m1, m2, m3 etc) where m1, m2 and m3 represents magnitude

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# Lab Assignment – 10 cont...

5. WAP containing a possible exception. Use try block to throw it and a catch block to handle it properly.

6. WAP that illustrates the application of multiple catch statements.

7. WAP to demonstrate the concept of re-throwing an exception.

8. WAP that calls a deeply nested function containing an exceptions. Incorporate necessary exception handling mechanism.

9. WAP that demonstrates how certain exception types are not allowed to be thrown.

10. WAP for the following
    - ❑ A function to read double type numbers from keyboard
    - ❑ A function to calculate the division of double type numbers
    - ❑ A try block to throw an exception when a wrong type of data is keyed in.
    - ❑ A try block to detect and throw an exception if the condition "divide-by-zero" occurs
    - ❑ Appropriate catch block to handle the exceptions thrown.