# New Parallel Algorithms Solutions

# std::accumulate

- Briefly describe the std::accumulate function and write a program to demonstrate its use
  - std::accumulate returns the sum of the elements in an iterator range
  - It takes the initial value of the sum as an argument
  - By default, it uses the + operator in the calculation
- Write another version of this program which uses a parallel execution policy

# std::partial_sum

- Briefly describe the std::partial_sum function and write a program to demonstrate its use
  - std::partial_sum uses the elements of a container to populate another container
  - The nth element in the target vector will be the sum of the first n elements in the source vector
  - e.g. {1, 2, 3, 4} gives {1, 1+2, 1+2+3, 1+2+3+4}
- Write another version of this program which uses a parallel execution policy
- Using a different function, write another version of this program which uses a parallel execution policy