#include <iostream>

#include <fstream>

#include <sstream>

#include <vector>

#include <string>

#include <stdexcept>

// 根据操作类型进行计算

double cal(const std::string& fun, const std::vector<double>& numbers) {

if (numbers.empty()) {

throw std::invalid\_argument("No numbers provided.");

}

double result = numbers[0];

if (fun == "add") {

for (size\_t i = 1; i < numbers.size(); ++i) {

result += numbers[i];

}

}

else if (fun == "minus") {

for (size\_t i = 1; i < numbers.size(); ++i) {

result -= numbers[i];

}

}

else {

throw std::invalid\_argument("Invalid function.");

}

return result;

}

// 从文件中读取数据

std::vector<double> readNumbersFromFile(const std::string& filename) {

std::ifstream file(filename);

if (!file.is\_open()) {

throw std::runtime\_error("Could not open file.");

}

std::vector<double> numbers;

std::string line;

while (std::getline(file, line)) {

std::istringstream ss(line);

double number;

while (ss >> number) {

numbers.push\_back(number);

}

}

file.close();

return numbers;

}

int main(int argc, char\* argv[]) {

if (argc != 3) {

std::cerr << "Usage: " << argv[0] << " <function> <filename>\n";

return 1;

}

std::string fun = argv[1];

std::string filename = argv[2];

try {

std::vector<double> numbers = readNumbersFromFile(filename);

double result = cal(fun, numbers);

std::cout << "Result: " << result << std::endl;

}

catch (const std::exception& e) {

std::cerr << "Error: " << e.what() << std::endl;

return 1;

}

return 0;

}