In int main/main.cpp:

Use do-while loop to show the menu, take the user input and pass their choice to the function “handleOption” until the user inputs “E” or “e”.

In functions.h:

A function called “showMenu” will print a menu to the screen.

A function called “handleOption” will push the user’s option through an if-else statement that simultaneously validates their input and finds the formula they wanted to calculate.

Functions to handle each option:

calcVelocity: calculate the velocity

calcAcceleration: calculate the acceleration

motionMenu: show user the options for different motion formulas

motionFormulas: take the user’s choice of motion formula and push it through an if-else

statement to find the desired formula and simultaneously validate input. Each branch of if-else statement will call a function that calculates the corresponding motion formula.

calcMa: calculate motion to solve for v

calcMs: calculate motion to solve for s

calcMv2: calculate motion to solve for v^2

calcMv: calculate motion to solve for v\_bar

calcNewt2ndLaw: calculate net force

calcWeight: calculate weight

calcMomentum: calculate momentum