

CS1428

Summer 2022

Assignment 4 Rubric

Student Name: XXXXXXXXXX

Style: 20 points

Condition	Max Points	Points Awarded
All lines less than 80 characters.	4	XXXX
Variables have meaningful names.	4	XXXX
Every block indented one tab or 4 spaces.	4	XXXX
Comments included for “complicated” actions.	2	XXXX
File name is [Authors Last Name]_assignment4.cpp	4	XXXX
Author, date, and collaborator comments included.	2	XXXX

Code Refactor: 20 points

Condition	Max Points	Points Awarded
Design New Ship implemented as 1 function	2	XXXX
Test a Ship Design implemented as 2 functions	10	XXXX
Simulate a Flight implemented as 1 function	2	XXXX
Menu branches each call 1 function (possibly 2 for Test)	4	XXXX
Good comments for function return, parameters, and side effects.	2	XXXX

Custom Data Type: 20 points

Condition	Max Points	Points Awarded
Ship struct has correct members	10	XXXX
Design a New Ship writes user input into a Ship	5	XXXX
Test a Ship Design reads files into a Ship	5	XXXX

Test Cases: 40 points

Input	Test Condition (not exact output)	Max Points	Points Awarded
D Thomas Harris Mae 500 5200	<u>Contents of Mae.txt</u> Acceleration: 10.4m/s ² Impulse: 22.9Ns/kg Max Altitude: 469.0km	5	
D Scott Manley Leonov 1000 2330	<u>Contents of Leonov.txt</u> Acceleration: 2.3m/s ² Impulse: 8.3Ns/kg Max Altitude: 175.8km	5	
D Isaac Asimov Christa 425 850	<u>Contents of Christa.txt</u> Acceleration: 2.0m/s ² Impulse: 6.8Ns/kg Max Altitude: 145.9km	5	
T Mae	Console prints, "Mae has failed test number 1"	5	
t Leonov	Console prints, "Leonov has failed test number 2"	5	
T Christa	Console prints, "Christa has failed test number 4"	5	
S 2.2 35	<u>Console Output</u> At 0 seconds: 0.0m/s 0.0m ... At 10 seconds: 22.0m/s 110.0m ... At 35 seconds: 77.0m/s 1.3km	5	
q	Program prints, "Thank you for using Craft Designer Plus." and exits.	5	

***values can be +- 0.1**

All test cases will be entered in order on one run of the program.

Total Points: