

CS31 Project 2 Report

- a. Although this project was not altogether difficult, there were some minor obstacles that should be noted. The most difficult part of the program was calculating the cost based on the amount of texts, since there were two things to account for. We had to determine what month it was, and whether the texts exceeded 250 and 500. The confusion lies mostly in constructing the nested if-loop. To break down the problem, we ask whether the texts exceed 500, in which each text over that threshold of 500 would cost 11 cents. If it exceeded 500, then we calculate the cost of those texts and set the number of texts to 500 (in order to avoid double counting). Then we ask whether the texts exceed 250; if so, we request a month input from the user, which helps us determine the new additional charge (via the nested loop). If the texts do not exceed 250, no extra charge is added at all. Simplifying the problem makes the program much easier to code. I also had to remind myself that a string input is coded differently from a number input.

b.	Min:	Texts:	Name:	Month:	Output Summary:	Reason for Test:
	0	0		1	Error – no name!	Check for error
	-5	0	Jason	1	Error – minutes negative!	Check for error
	0	-5	Paul	1	Error – texts negative!	Check for error
	0	0	George	13	Error – month out of range!	Check for error
	500	0	Lawson	1	Bill is \$85.00	Minutes charge
	400	500	Apple	5	Bill is \$50.00	Text charge (regular)
	400	500	Steve	6	Bill is \$47.50	Text charge (cheaper)
	0	600	Window	3	Bill is \$61.00	Text charge (regular)
	400	600	Bill	8	Bill is \$58.50	Text charge (cheaper)
	100	100	Eric	1	Bill is \$45.00	Base charge
	700	700	Zero	2	Bill is \$192.00	Minutes/text charge (verify calculation)