# #Module 6 - Exercise 1 Flowcharting - Samuel Steinhardt

#Pseudocode for Dash Cell Phone Company

## #Module to Make Assignment Easier

function computeSubtotal(numberOfTexts):  
 bill = 5.00  
 if numberOfTexts > 100 then  
 if numberOfTexts <= 300 then  
 bill = bill + (numberOfTexts - 100) \* 0.03  
 else  
 bill = bill + 200 \* 0.03  
 bill = bill + (numberOfTexts - 300) \* 0.02  
 endif  
 endif  
 return bill  
  
function totalWithTax(subtotal):  
 return subtotal \* 1.14  
  
function displayInfo(areaCode, phoneNumber, numberOfTexts, subtotal, total):  
 output 'Area code: ' + areaCode  
 output 'Phone number: ' + phoneNumber  
 output 'Texts: ' + numberOfTexts  
 output 'Bill before tax: ' + subtotal  
 output 'Bill after 14% tax: ' + total

## #Part A

start  
input areaCode # 3 digits  
input phoneNumber # 7 digits  
input numberOfTexts # count of text messages sent  
  
subtotal = computeSubtotal(numberOfTexts)  
total = totalWithTax(subtotal)  
displayInfo(areaCode, phoneNumber, numberOfTexts, subtotal, total)  
end

## #Part B

start  
input numberOfTexts  
while numberOfTexts <> -1  
 input areaCode  
 input phoneNumber  
  
 subtotal = computeSubtotal(numberOfTexts)  
 total = totalWithTax(subtotal)  
 displayInfo(areaCode, phoneNumber, numberOfTexts, subtotal, total)  
  
 input numberOfTexts  
endwhile  
end

## #Part C

start  
input numberOfTexts  
while numberOfTexts <> -1  
 input areaCode  
 input phoneNumber  
  
 if numberOfTexts > 100 then  
 subtotal = computeSubtotal(numberOfTexts)  
 total = totalWithTax(subtotal)  
 displayInfo(areaCode, phoneNumber, numberOfTexts, subtotal, total)  
 endif  
  
 input numberOfTexts  
endwhile  
end

## #Part D

start  
input numberOfTexts  
while numberOfTexts <> -1  
 input areaCode  
 input phoneNumber  
  
 subtotal = computeSubtotal(numberOfTexts)  
 total = totalWithTax(subtotal)  
  
 if total > 10.00 then  
 displayInfo(areaCode, phoneNumber, numberOfTexts, subtotal, total)  
 endif  
  
 input numberOfTexts  
endwhile  
end

## #Part E

start  
input selectedArea  
input numberOfTexts  
while numberOfTexts <> -1  
 input areaCode  
 input phoneNumber  
  
 if areaCode = selectedArea then  
 subtotal = computeSubtotal(numberOfTexts)  
 total = totalWithTax(subtotal)  
 displayInfo(areaCode, phoneNumber, numberOfTexts, subtotal, total)  
 endif  
  
 input numberOfTexts  
endwhile  
end