#This purpose of this program is to detect whether a provided number is a valid credit card number.

1. define a function asking the user for input
2. declare variable string = ask user for credit card number
3. declare variable numbers = convert string input to list of integers

4. IF the function for calculating the card length evaluates true: then call the validation function

5. ELSE: display the string "The credit card number you entered is invalid"

6. define a function for calculating the card length
7. declare variable length = the amount of digits in numbers
8. IF the length of the credit card number is between 13 and 16 digits:
   IF the first digit in numbers is equal to 4, 5, 6 or 37,
   then: return true which means that the credit card number is valid.
   ELSE:
   return false which means that the credit card number is invalid
9. define a function for validating the credit card number
10. declare variable odd results = the outcome of the function that calculates the odd digits
11. declare variable even results = the outcome of the function that calculates the even digits
12. declare variable sum of results = odd results + even results
13. IF the sum of the results is divisible by 10 and has a remainder of 0
    display the string "This credit card number is valid" to the user.
14. ELSE:
    display the string "this credit card number is invalid" to the user
15. define a function for calculating the numbers in the even places of the list numbers
16. declare a variable sum even = initialized at zero
17. declare a variable even digit = the sliced list reduced to the numbers in the even places
18. create a for loop which counts from zero to the end of the even digit list
19. declare a variable number = multiply the even placed digits by 2
20. IF number is greater than 9
    declare a variable str_number = the number that is bigger than 9 gets converted to string.
21. number = add each individual digit of the number that is bigger than 9 (str_number)
22. sum even = sum even + number
23. return sum even

24. define a function for calculating the numbers in the odd places of the list numbers
25. declare a variable sum odd = initialized at zero
26. declare a variable odd digit = the sliced list reduced to the numbers in the odd places
27. create a for loop which counts from zero to the end of the odd digit list
    a. sum odd = sum odd + the odd digits
28. return the sum of the odd
29. define a main function that defines our first function ask user This function calls the ask user function and executes it.