#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

1. IF the function for calculating the card length evaluates true: then call the validation function
2. ELSE: display the string "The credit card number you entered is invalid"

1. define a function for calculating the card length
2. declare variable length = the amount of digits in numbers
3. 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

1. define a function for validating the credit card number
2. declare variable odd results = the outcome of the function that calculates the odd digits
3. declare variable even results = the outcome of the function that calculates the even digits
4. declare variable sum of results = odd results + even results
5. 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.

1. ELSE:

display the string "this credit card number is invalid" to the user

1. define a function for calculating the numbers in the even places of the list numbers
2. declare a variable sum even = initialized at zero
3. declare a variable even digit = the sliced list reduced to the numbers in the even places
4. create a for loop which counts from zero to the end of the even digit list
5. declare a variable number = multiply the even placed digits by 2
6. IF number is greater than 9

declare a variable str\_number = the number that is bigger than 9 gets converted to string.

1. number = add each individual digit of the number that is bigger than 9 (str\_number)
2. sum even = sum even + number
3. return sum even

1. define a function for calculating the numbers in the odd places of the list numbers
2. declare a variable sum odd = initialized at zero
3. declare a variable odd digit = the sliced list reduced to the numbers in the odd places
4. create a for loop which counts from zero to the end of the odd digit list
   1. sum odd = sum odd + the odd digits
5. return the sum of the odd
6. define a main function that defines our first function ask user This function calls the ask user function and executes it.