Report

1. **State the names of the group members and the group number.**

*Group names:*

            Ramy Ktllama

            Duco van den Bos

            Amandine Aabdaoui

            Mylène Brown-Coleman

*Group number:* 47

1. **What is the problem you are solving?**

We have to make a program that can detect whether a provided number is a valid

credit card number, following these rules;

1. Double every second digit from right to left. If doubling of a digit results in a

two-digit number, add up the two digits to get a single-digit number.

2. Now add all single-digit numbers from Step 1.

3. Add all digits in the odd places from right to left in the card number.

 4. Sum the results from Step 2 and Step 3.

5. If the result in Step 4 is divisible by **10**, the card number is correct. Otherwise, the number is invalid. For instance, the sequence 4388576018402626 is not a valid credit card number, but the number 4388576018410707 is valid.

We are allowed to make our own assumptions of what is permitted, but we

have to assume that the computer will generate numbers randomly or that

a user will be entering a number of a few digits. If the provided input is not

permitted, how will our algorithm handle such cases? We specify this in a

second, more sophisticated version of our algorithm.

1. **How have you tackled the problem (which algorithms, solution strategies, tools, etc.)?**

We started off by making pseudocodes individually. We then compared our pseudocodes, so we could decide which one was the optimal solution.

* divide into several subproblems
* back chaining
* exclusion
* github
* clarify tasks
* track stages of progress
* python
* lucid chart
* screen recording zoom

1. **Which problems have you encountered in solving the problem (your project assignment).**

* **setting up github**
* **helping team members installing python**
* **github workflow**
* **data type converting issue**
* **pyth**

1. **How have you solved those problems (which solution strategies/algorithms)?**

* **sliced integer list**
* **the input conversion**
* **zoom call for installing github**
* **video links youtube tutorials and github site**

1. **How did you split the tasks?**

* **we assigned issues to each other on github**
* **we created a project board on github where we’ve created issues each issues we gave a description and eventually a label and assign those to everyone**

1. **Specify who did what.**
2. **How much time have you spent on solving the problem (an estimation is sufficient)? started 24th september,**