

## Web Based Technologies –HW#1

### About the Assignment

Implement a credit card verification as a WEB application using ASP.NET. You will get the following information from the user:

- When user entered the Card number into the **text box**, you should display the cardtype as Master Card or Visa or other.

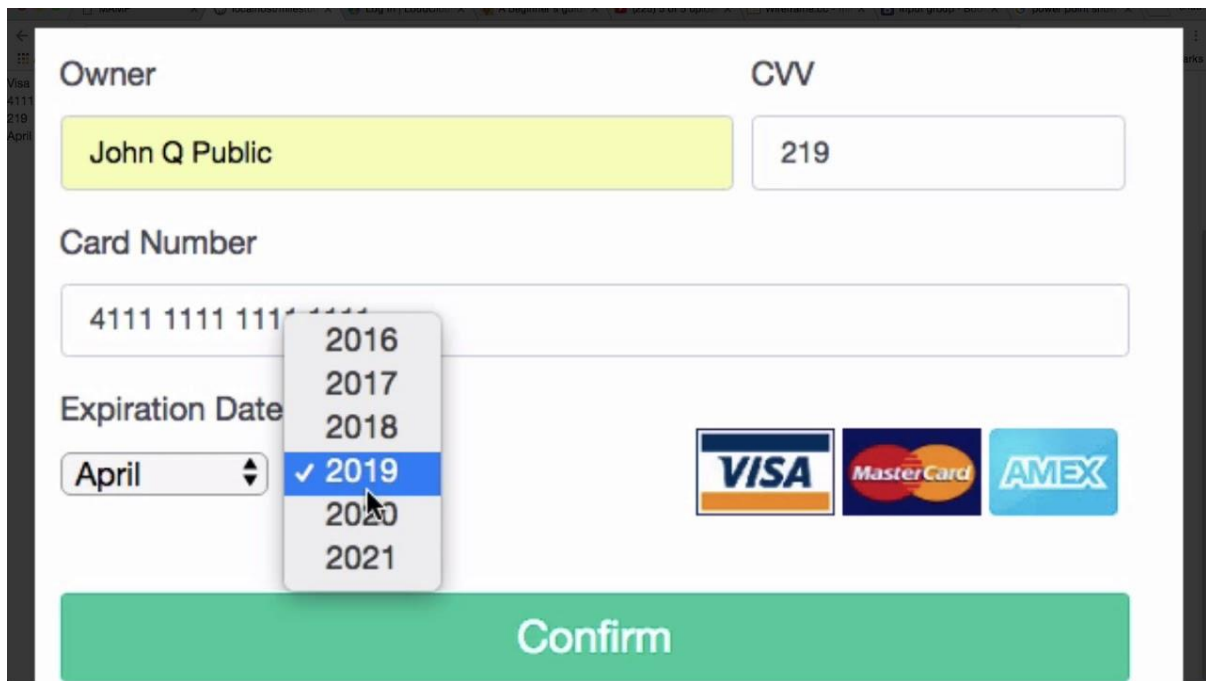
A screenshot of a web form for credit card verification. The form has a light gray background. At the top, there are two labels: 'Owner' and 'CW'. Below 'Owner' is a yellow text box containing 'John Q Public'. Below 'CW' is a white text box containing '219'. Below these is a label 'Card Number' followed by a white text box containing '4111 1111 1111 1111'. Below the card number is a label 'Expiration Date' followed by a dropdown menu showing 'April' and a date selection calendar. The calendar is open, showing years from 2016 to 2021, with 2019 selected and marked with a checkmark. To the right of the calendar are three credit card logos: VISA, MasterCard, and AMEX. At the bottom of the form is a large green button labeled 'Confirm'.

Image is taken from [1]

Ex-1: You will check the card number after submit, if it is master-card, then you will display the master-card image in left side. You have to show card number in left card template.

### Task1:

Write an ASP.NET function that checks the validity of a credit card specified by the supplied parameters containing the card number and card type. The function returns *true* or *false*, depending on whether the credit card name / number combination is found to be valid. If it is not valid, a numeric code is loaded into a global variable, which may be used to index into a global array of error messages as follows.

1. "Unknown card type",
2. "No card number provided",
3. "Credit card number is in invalid format",
4. "Credit card number is invalid",
5. "Credit card number has an inappropriate number of digits" etc.

You can use asp.net validation controls to determine card type.

For more information about Credit Card Number visit: <https://baymard.com/checkout-usability/credit-card-patterns>

In an example;

For MasterCard, the card number must consist of 16 digits and first 6 digits are between 222100-272099 or first 2 digits are between 51-55.

You can use only if condition to check validation of card number.

In addition to above information, you have to validate card number by using luhn algorithm.

Use Luhn algorithm as explained below.

<https://www.geeksforgeeks.org/luhn-algorithm/#:~:text=The%20Luhn%20algorithm%2C%20also%20known,by%20a%20group%20of%20mathematicians.>




#### Task2:

- Check the CCV number is valid.
- Check the expiration date is valid.
- If card type is VISA, the VISA image must be active.

Your homework will be graded based on **your design.**

Only send asp.net files like below. Send with shortest name and **Zip** format.

#### Example; Name-Surname-HW1.Zip

 Default.aspx	2019-02-19 15:46	ASP.NET Server Pa	1 KB
 Default.aspx.cs	2019-02-20 11:16	CS File	2 KB
 Default.aspx.designer.cs	2019-02-19 15:43	CS File	3 KB

#### References:

[1] <https://i.ytimg.com/vi/UPIGss0EOes/maxresdefault.jpg>