Model 1   Credit Card

Classes often represent objects in the real world. In this section, you will design a new class that represents a `CreditCard` like the one below:

Questions (15 min)   Start time:

1. Identify two or more attributes that would be necessary for the `CreditCard` class. For each attribute, indicate what data type would be most appropriate.

2. Using UML syntax, define two or more constructors for the `CreditCard` class.

3. Define two or more accessor methods for the `CreditCard` class. Include arguments and return values, using the same format as a UML diagram.

4. Define two or more mutator methods for the `CreditCard` class. Include arguments and return values, using the same format as a UML diagram.

5. Describe how you would implement the `equals` method of the `CreditCard` class.

6. Describe how you would implement the `toString` method of the `CreditCard` class.

7. When constructing (or updating) a `CreditCard` object, which arguments would you need to validate? What are the valid ranges of values for each attribute?