```
1    // **************** Homework 6 Pt III script ************************
2
3    // When the document is fully loaded, execute the following code.
4    $(document).ready(function() {
5        // The mask format is (xxx) xxx-xxxx in input field, where x is a digit.
6        $('#phoneNumberInput').mask('(000) 000-0000');
7
8        // Defined function to process phone number and assigned to the global window object
         to be accessible from HTML.
9        window.splitPhoneNumber = function() {
10           // Retrieve the value from the phone number input field.
11           var phone = $('#phoneNumberInput').val();
12
13           // Select the element for displaying error messages.
14           var errorMessage = $('#errorMessage');
15
16           // Define a regular expression to match the phone number format.
17           // The format is (xxx) xxx-xxxx with x being a digit.
18           // Parentheses create groups to extract area code, first 3 digits, and last 4
             digits.
19           var regex = /^\((\d{3})\) (\d{3})-(\d{4})$/;
20
21           // Attempt to match the entered phone number with the regex pattern.
22           var match = phone.match(regex);
23
24           // If the phone number matches the pattern, proceed with processing.
25           if (match) {
26               // Set the area code, first 3 digits, and last 4 digits in their respective
                 fields.
27               $('#areaCode').val(match[1]);
28               $('#firstThreeDigits').val(match[2]);
29               $('#lastFourDigits').val(match[3]);
30
31               // Clear any previous error messages.
32               errorMessage.text('');
33           } else {
34               // If the format is incorrect, display an error message.
35               errorMessage.text('Please enter the phone number in the format (999)
                 999-9999.');
36
37               // Clear the values in the result fields as the format is incorrect.
38               $('#areaCode, #firstThreeDigits, #lastFourDigits').val('');
39           }
40       };
41   });
42
43
```