personal—website/projects/prog14/process.php

```php
1   <?php
2   // This function checks to see if a number is an Armstrong number
3   function isArmstrong($num) {
4       if ($num < 10) return false;
5       $sum = 0;
6       $temp = $num;
7       $digits = strlen((string)$num);
8       while ($temp != 0) {
9           $remainder = $temp % 10;
10          $sum += pow($remainder, $digits);
11          $temp = floor($temp / 10);
12      }
13      return $num == $sum;
14  }
15
16  // This function checks to see if a number is a Fibonacci number
17  function isFibonacci($num) {
18      $a = 0;
19      $b = 1;
20      if ($num == $a || $num == $b) return true;
21      $c = $a + $b;
22      while ($c <= $num) {
23          if ($c == $num) return true;
24          $a = $b;
25          $b = $c;
26          $c = $a + $b;
27      }
28      return false;
29  }
30
31  // This function checks to see if a number is a prime number
32  function isPrime($num) {
33      if ($num < 2) return false;
34      for ($i = 2; $i <= sqrt($num); $i++) {
35          if ($num % $i == 0) return false;
36      }
37      return true;
38  }
39
40  // This function checks to see if a number is neither prime, Armstrong, nor Fibonac↵
    ci
41  function isNone($num) {
```

```php
42        return !isPrime($num) && !isArmstrong($num) && !isFibonacci($num);
43  }
44
45  // This function adds a number to a file
46  function addToFile($filename, $num) {
47      $current = file_get_contents($filename);
48      $current .= $num . "\n";
49      file_put_contents($filename, $current);
50  }
51
52  // Check if this is the user's first visit, if so, create the new .txt files
53  if (!isset($_COOKIE['visited'])) {
54      file_put_contents('armstrong.txt', '');
55      file_put_contents('fibonacci.txt', '');
56      file_put_contents('prime.txt', '');
57      file_put_contents('none.txt', '');
58
59      // Set a cookie that lasts 24hrs
60      setcookie('visited', 'true', time() + 86400, "/");
61  }
62
63  // Check if the user has submitted a form
64  if ($_SERVER['REQUEST_METHOD'] == 'POST') {
65      // If the user clicks reset, delete all 4 files and clear the cookies
66      if (isset($_POST['reset'])) {
67          unlink('armstrong.txt');
68          unlink('fibonacci.txt');
69          unlink('prime.txt');
70          unlink('none.txt');
71          setcookie('visited', '', time() - 3600, "/");
72          header("Location: ../public/index.html");
73          exit();
74      }
75
76      // If the user submits a number, check if it is Armstrong, Fibonacci, Prime, or
    None
77      if (isset($_POST['numbers'])) {
78          $numbers = explode(',', $_POST['numbers']);
79          foreach ($numbers as $num) {
80              $num = trim($num);
81              if (is_numeric($num)) {
82                  if (isArmstrong($num)) {
83                      addToFile('armstrong.txt', $num);
84                  } elseif (isFibonacci($num)) {
85                      addToFile('fibonacci.txt', $num);
```

```php
 86                    } elseif (isPrime($num)) {
 87                        addToFile('prime.txt', $num);
 88                    } else {
 89                        addToFile('none.txt', $num);
 90                    }
 91                }
 92            }
 93            header("Location: ../public/index.html");
 94            exit();
 95        }
 96    }
 97
 98    // If the user clicks a view button, display the content of the correct file
 99    if ($_SERVER['REQUEST_METHOD'] == 'GET' && isset($_GET['view'])) {
100        // This function displays the content of a file
101        function showNumbers($filename) {
102            if (file_exists($filename)) {
103                $content = file_get_contents($filename);
104                echo "<div class='display'><strong>" . strtoupper($filename) . ":
       </strong><br>" . nl2br($content) . "</div>";
105            } else {
106                echo "<div class='display'><strong>" . strtoupper($filename) . ":
       </strong> Content File Empty! </div>";
107            }
108        }
109
110        // Create the Display page for the user
111        echo "<!DOCTYPE html>
112        <html lang='en'>
113        <head>
114            <meta charset='UTF-8'>
115            <title>Number Checker Results</title>
116            <script src='../../load-navbar.js' defer></script>
117            <link href='../../navStyle.css' rel='stylesheet' type='text/css'>
118            <link rel='stylesheet' href='../public/prog14.css'>
119        </head>
120        <body>
121            <h1>Number Checker Results</h1>";
122
123        // Display the content of the file based on the view button clicked
124        $view = $_GET['view'];
125        switch ($view) {
126            case 'armstrong':
127                showNumbers('armstrong.txt');
128                break;
```

```php
129              case 'fibonacci':
130                  showNumbers('fibonacci.txt');
131                  break;
132              case 'prime':
133                  showNumbers('prime.txt');
134                  break;
135              case 'none':
136                  showNumbers('none.txt');
137                  break;
138          }
139
140          echo "<a href='../public/index.html' class='back-button'>Back</a>
141          </body>
142          </html>";
143  }
144  ?>
145
```