

```
1. <!--
2.
3.  search0.html
4.
5.  David J. Malan
6.  malan@harvard.edu
7.
8.  Demonstrates form submission.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.     <head>
16.         <title>CS50 Search</title>
17.     </head>
18.     <body>
19.         <h1>CS50 Search</h1>
20.         <form action="http://www.google.com/search" method="get">
21.             <input name="q" type="text"/>
22.             <br/>
23.             <input type="submit" value="CS50 Search"/>
24.         </form>
25.     </body>
26. </html>
```

```
1. <!--
2.
3. search1.html
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. Demonstrates style attribute.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.     <head>
16.         <title>CS50 Search</title>
17.     </head>
18.     <body style="text-align: center">
19.         <h1>CS50 Search</h1>
20.         <form action="http://www.google.com/search" method="get">
21.             <input name="q" type="text"/>
22.             <br/>
23.             <input type="submit" value="CS50 Search"/>
24.         </form>
25.     </body>
26. </html>
```

```
1. <!--
2.
3.  search2.html
4.
5.  David J. Malan
6.  malan@harvard.edu
7.
8.  Demonstrates style tag.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.     <head>
16.         <style>
17.             body
18.             {
19.                 text-align: center;
20.             }
21.         </style>
22.         <title>CS50 Search</title>
23.     </head>
24.     <body>
25.         <h1>CS50 Search</h1>
26.         <form action="http://www.google.com/search" method="get">
27.             <input name="q" type="text"/>
28.             <br/>
29.             <input type="submit" value="CS50 Search"/>
30.         </form>
31.     </body>
32. </html>
```

```
1. body
2. {
3.   text-align: center;
4. }
```

```
1. <!--
2.
3.  search3.html
4.
5.  David J. Malan
6.  malan@harvard.edu
7.
8.  Demonstrates link tag.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.     <head>
16.         <link href="search3.css" rel="stylesheet"/>
17.         <title>CS50 Search</title>
18.     </head>
19.     <body>
20.         <h1>CS50 Search</h1>
21.         <form action="http://www.google.com/search" method="get">
22.             <input name="q" type="text"/>
23.             <br/>
24.             <input type="submit" value="CS50 Search"/>
25.         </form>
26.     </body>
27. </html>
```

```
1. <!--
2.
3.  search4.html
4.
5.  David J. Malan
6.  malan@harvard.edu
7.
8.  Demonstrates img tag (and block-level elements).
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.     <head>
16.         <style>
17.
18.             #header
19.             {
20.                 text-align: center;
21.             }
22.
23.             #content
24.             {
25.                 text-align: center;
26.             }
27.
28.             #content input
29.             {
30.                 margin: 5px;
31.             }
32.
33.             #footer
34.             {
35.                 font-size: smaller;
36.                 font-weight: bold;
37.                 margin: 20px;
38.                 text-align: center;
39.             }
40.
41.         </style>
42.         <title>CS50 Search</title>
43.     </head>
44.     <body>
45.         <div id="header">
46.             
47.         </div>
48.         <div id="content">
```

```
49.         <form action="http://www.google.com/search" method="get">
50.             <input name="q" type="text"/>
51.             <br/>
52.             <input type="submit" value="CS50 Search"/>
53.         </form>
54.     </div>
55.     <div id="footer">
56.         Copyright (c) CS50
57.     </div>
58. </body>
59. </html>
```

```

1. <?php
2.
3.  /*****
4.   * froshims0.php
5.   *
6.   * David J. Malan
7.   * malan@harvard.edu
8.   *
9.   * Implements a registration form for Frosh IMs.
10.  * Submits to register0.php.
11.  *****/
12.
13. ?>
14.
15. <!DOCTYPE html>
16.
17. <html>
18.     <head>
19.         <title>Frosh IMs</title>
20.     </head>
21.     <body style="text-align: center;">
22.         <h1>Register for Frosh IMs</h1>
23.         <form action="register0.php" method="post">
24.             Name: <input name="name" type="text" />
25.             <br/>
26.             <input name="captain" type="checkbox" /> Captain?
27.             <br/>
28.             <input name="gender" type="radio" value="F" /> Female
29.             <input name="gender" type="radio" value="M" /> Male
30.             <br/>
31.             Dorm:
32.             <select name="dorm">
33.                 <option value=""></option>
34.                 <option value="Apley Court">Apley Court</option>
35.                 <option value="Canaday">Canaday</option>
36.                 <option value="Grays">Grays</option>
37.                 <option value="Greenough">Greenough</option>
38.                 <option value="Hollis">Hollis</option>
39.                 <option value="Holworthy">Holworthy</option>
40.                 <option value="Hurlbut">Hurlbut</option>
41.                 <option value="Lionel">Lionel</option>
42.                 <option value="Matthews">Matthews</option>
43.                 <option value="Mower">Mower</option>
44.                 <option value="Pennypacker">Pennypacker</option>
45.                 <option value="Stoughton">Stoughton</option>
46.                 <option value="Straus">Straus</option>
47.                 <option value="Thayer">Thayer</option>
48.                 <option value="Weld">Weld</option>

```



```
49.         <option value="Wigglesworth">Wigglesworth</option>
50.     </select>
51.     <br/>
52.     <input type="submit" value="Register"/>
53. </form>
54. </body>
55. </html>
```

```

1. <?php
2.
3.  /*****
4.   * froshims1.php
5.   *
6.   * David J. Malan
7.   * malan@harvard.edu
8.   *
9.   * Implements a registration form for Frosh IMs.
10.  * Submits to register1.php.
11.  * Demonstrates Bootstrap (http://twitter.github.com/bootstrap).
12.  *****/
13.
14. ?>
15.
16. <!DOCTYPE html>
17.
18. <html>
19.     <head>
20.         <link href="bootstrap/css/bootstrap.min.css" rel="stylesheet"/>
21.         <title>Frosh IMs</title>
22.     </head>
23.     <body style="margin: 20px;">
24.         <h1>Register for Frosh IMs</h1>
25.         <form action="register1.php" method="post">
26.             <fieldset>
27.                 <label>Name</label>
28.                 <input name="name" type="text"/>
29.                 <label class="checkbox">
30.                     <input name="captain" type="checkbox"/> Captain?
31.                 </label>
32.                 <label class="radio">
33.                     <input name="gender" type="radio" value="F"/> Female
34.                 </label>
35.                 <label class="radio">
36.                     <input name="gender" type="radio" value="M"/> Male
37.                 </label>
38.                 <label>
39.                     <select name="dorm">
40.                         <option value=""></option>
41.                         <option value="Apley Court">Apley Court</option>
42.                         <option value="Canaday">Canaday</option>
43.                         <option value="Grays">Grays</option>
44.                         <option value="Greenough">Greenough</option>
45.                         <option value="Hollis">Hollis</option>
46.                         <option value="Holworthy">Holworthy</option>
47.                         <option value="Hurlbut">Hurlbut</option>
48.                         <option value="Lionel">Lionel</option>

```

```
49.         <option value="Matthews">Matthews</option>
50.         <option value="Mower">Mower</option>
51.         <option value="Pennypacker">Pennypacker</option>
52.         <option value="Stoughton">Stoughton</option>
53.         <option value="Straus">Straus</option>
54.         <option value="Thayer">Thayer</option>
55.         <option value="Weld">Weld</option>
56.         <option value="Wigglesworth">Wigglesworth</option>
57.     </select>
58. </label>
59.     <button class="btn" type="submit">Register</button>
60. </fieldset>
61. </form>
62. </body>
63. </html>
```

```

1. <?php
2.
3. /*****
4.  * froshims2.php
5.  *
6.  * David J. Malan
7.  * malan@harvard.edu
8.  *
9.  * Implements a registration form for Frosh IMs.
10. * Submits to register2.php.
11. *****/
12.
13. ?>
14.
15. <!DOCTYPE html>
16.
17. <html>
18.     <head>
19.         <title>Frosh IMs</title>
20.     </head>
21.     <body style="text-align: center;">
22.         <h1>Register for Frosh IMs</h1>
23.         <form action="register2.php" method="post">
24.             Name: <input name="name" type="text" />
25.             <br/>
26.             <input name="captain" type="checkbox" /> Captain?
27.             <br/>
28.             <input name="gender" type="radio" value="F" /> Female
29.             <input name="gender" type="radio" value="M" /> Male
30.             <br/>
31.             Dorm:
32.             <select name="dorm">
33.                 <option value=""></option>
34.                 <option value="Apley Court">Apley Court</option>
35.                 <option value="Canaday">Canaday</option>
36.                 <option value="Grays">Grays</option>
37.                 <option value="Greenough">Greenough</option>
38.                 <option value="Hollis">Hollis</option>
39.                 <option value="Holworthy">Holworthy</option>
40.                 <option value="Hurlbut">Hurlbut</option>
41.                 <option value="Lionel">Lionel</option>
42.                 <option value="Matthews">Matthews</option>
43.                 <option value="Mower">Mower</option>
44.                 <option value="Pennypacker">Pennypacker</option>
45.                 <option value="Stoughton">Stoughton</option>
46.                 <option value="Straus">Straus</option>
47.                 <option value="Thayer">Thayer</option>
48.                 <option value="Weld">Weld</option>

```

```
49.         <option value="Wigglesworth">Wigglesworth</option>
50.     </select>
51.     <br/>
52.     <input type="submit" value="Register"/>
53. </form>
54. </body>
55. </html>
```

```

1. <?php
2.
3. /*****
4.  * froshims3.php
5.  *
6.  * David J. Malan
7.  * malan@harvard.edu
8.  *
9.  * Implements a registration form for Frosh IMS.
10. * Submits to register3.php.
11. *****/
12.
13. ?>
14.
15. <!DOCTYPE html>
16.
17. <html>
18.     <head>
19.         <title>Frosh IMS</title>
20.     </head>
21.     <body style="text-align: center;">
22.         <h1>Register for Frosh IMS</h1>
23.         <form action="register3.php" method="post">
24.             Name: <input name="name" type="text" />
25.             <br/>
26.             <input name="captain" type="checkbox" /> Captain?
27.             <br/>
28.             <input name="gender" type="radio" value="F" /> Female
29.             <input name="gender" type="radio" value="M" /> Male
30.             <br/>
31.             Dorm:
32.             <select name="dorm">
33.                 <option value=""></option>
34.                 <option value="Apley Court">Apley Court</option>
35.                 <option value="Canaday">Canaday</option>
36.                 <option value="Grays">Grays</option>
37.                 <option value="Greenough">Greenough</option>
38.                 <option value="Hollis">Hollis</option>
39.                 <option value="Holworthy">Holworthy</option>
40.                 <option value="Hurlbut">Hurlbut</option>
41.                 <option value="Lionel">Lionel</option>
42.                 <option value="Matthews">Matthews</option>
43.                 <option value="Mower">Mower</option>
44.                 <option value="Pennypacker">Pennypacker</option>
45.                 <option value="Stoughton">Stoughton</option>
46.                 <option value="Straus">Straus</option>
47.                 <option value="Thayer">Thayer</option>
48.                 <option value="Weld">Weld</option>

```

```
49.         <option value="Wigglesworth">Wigglesworth</option>
50.     </select>
51.     <br/>
52.     <input type="submit" value="Register"/>
53. </form>
54. </body>
55. </html>
```

```
1. <?php
2.
3.  /*****
4.   * register0.php
5.   *
6.   * David J. Malan
7.   * malan@harvard.edu
8.   *
9.   * Dumps contents of $_POST.
10.  *****/
11.
12. ?>
13.
14. <!DOCTYPE html>
15.
16. <html>
17.   <head>
18.     <title>Frosh IMS</title>
19.   </head>
20.   <body>
21.     <pre>
22.       <?php print_r($_POST); ?>
23.     </pre>
24.   </body>
25. </html>
```



```
1. <?php
2.
3.  /* *****
4.   * register1.php
5.   *
6.   * David J. Malan
7.   * malan@harvard.edu
8.   *
9.   * Implements a registration form for Frosh IMS. Redirects
10.  * user to froshims1.php upon error.
11.  * *****/
12.
13. // validate submission
14. if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"]))
15. {
16.     header("Location: http://localhost/src8m/froshims/froshims1.php");
17.     exit;
18. }
19.
20. ?>
21.
22. <!DOCTYPE html>
23.
24. <html>
25.     <head>
26.         <title>Frosh IMS</title>
27.     </head>
28.     <body>
29.         You are registered! (Well, not really.)
30.     </body>
31. </html>
```

```
1. <?php
2.
3.  /*****
4.   * register2.php
5.   *
6.   * Computer Science 50
7.   * David J. Malan
8.   *
9.   * Implements a registration form for Frosh IMs.  Informs user of
10.  * any errors.
11.  *****/
12.
13. ?>
14.
15. <!DOCTYPE html>
16.
17. <html>
18.   <head>
19.     <title>Frosh IMs</title>
20.   </head>
21.   <body>
22.     <?php if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"])): ?>
23.       You must provide your name, gender, and dorm!  Go <a href="froshims2.php">back</a>.
24.     <?php else: ?>
25.       You are registered!  (Well, not really.)
26.     <?php endif ?>
27.   </body>
28. </html>
```

```

1. <?php
2.
3. /*****
4.  * register3.php
5.  *
6.  * Computer Science 50
7.  * David J. Malan
8.  *
9.  * Implements a registration form for Frosh IMS. Reports registration
10. * via email. Redirects user to froshims3.php upon error.
11. *****/
12.
13. // require PHPMailer
14. require("PHPMailer/class.phpmailer.php");
15.
16. // validate submission
17. if (!empty($_POST["name"]) && !empty($_POST["gender"]) && !empty($_POST["dorm"]))
18. {
19.     // instantiate mailer
20.     $mail = new PHPMailer();
21.
22.     // use SMTP
23.     $mail->IsSMTP();
24.     $mail->Host = "smtp.fas.harvard.edu";
25.
26.     // set From:
27.     $mail->SetFrom("jharvard@cs50.net");
28.
29.     // set To:
30.     $mail->AddAddress("jharvard@cs50.net");
31.
32.     // set Subject:
33.     $mail->Subject = "registration";
34.
35.     // set body
36.     $mail->Body = "This person just registered:\n\n" .
37.         "Name: " . $_POST["name"] . "\n" .
38.         "Captain: " . $_POST["captain"] . "\n" .
39.         "Gender: " . $_POST["gender"] . "\n" .
40.         "Dorm: " . $_POST["dorm"];
41.
42.     // send mail
43.     if ($mail->Send() == false)
44.     {
45.         die($mail->ErrInfo);
46.     }
47. }
48. else

```

```
49.     {
50.         header("Location: http://localhost/~jharvard/froshims/froshims3.php");
51.         exit;
52.     }
53. ?>
54.
55. <!DOCTYPE html>
56.
57. <html>
58.     <head>
59.         <title>Frosh IMs</title>
60.     </head>
61.     <body>
62.         You are registered!   (Really.)
63.     </body>
64. </html>
```

```

1. <?php
2.
3. /*****
4.  * dictionary.php
5.  *
6.  * Computer Science 50
7.  * David J. Malan
8.  *
9.  * Implements a dictionary in a (non-object-oriented) way that
10. * mimics Problem Set 5's implementation in C. However, an
11. * object-oriented design would be better in PHP.
12. *****/
13.
14. // size of dictionary
15. $size = 0;
16.
17. // hash table
18. $table = array();
19.
20. /**
21.  * Returns true if word is in dictionary else false.
22.  */
23. function check($word)
24. {
25.     global $table;
26.     if (isset($table[strtolower($word)]))
27.     {
28.         return true;
29.     }
30.     else
31.     {
32.         return false;
33.     }
34. }
35.
36. /**
37.  * Loads dict into memory. Returns true if successful else false.
38.  */
39. function load($dict)
40. {
41.     global $table, $size;
42.     if (!file_exists($dict) && is_readable($dict))
43.     {
44.         return false;
45.     }
46.     foreach (file($dict) as $word)
47.     {
48.         $table[chop($word)] = true;

```

```
49.         $size++;
50.     }
51.     return true;
52. }
53.
54. /**
55.  * Returns number of words in dictionary if loaded else 0 if not yet loaded.
56.  */
57. function size()
58. {
59.     global $size;
60.     return $size;
61. }
62.
63. /**
64.  * Unloads dictionary from memory. Returns true if successful else false.
65.  */
66. function unload()
67. {
68.     return true;
69. }
70.
71. ?>
```

```
1. <?php
2.
3. /*****
4.  * beer1.php
5.  *
6.  * David J. Malan
7.  * malan@harvard.edu
8.  *
9.  * Sings "99 Bottles of Beer on the Wall."
10. *
11. * Demonstrates a for loop.
12. *****/
13.
14. // ask user for number
15. $n = readline("How many bottles will there be? ");
16.
17. // exit upon invalid input
18. if ($n < 1)
19. {
20.     printf("Sorry, that makes no sense.\n");
21.     exit(1);
22. }
23.
24. // sing the annoying song
25. printf("\n");
26. for ($i = $n; $i > 0; $i--)
27. {
28.     printf("%d bottle(s) of beer on the wall,\n", $i);
29.     printf("%d bottle(s) of beer,\n", $i);
30.     printf("Take one down, pass it around,\n");
31.     printf("%d bottle(s) of beer on the wall.\n\n", $i - 1);
32. }
33.
34. // exit when song is over
35. printf("Wow, that's annoying.\n");
36. exit(0);
37.
38. ?>
```

```
1. <?php
2.
3.  /* *****
4.   * conditions2.php
5.   *
6.   * David J. Malan
7.   * malan@harvard.edu
8.   *
9.   * Tells user if his or her input is positive or negative (somewhat
10.  * inaccurately).
11.  *
12.  * Demonstrates use of if-else construct.
13.  * *****
14.
15. // ask user for an integer
16. $n = readline("I'd like an integer please: ");
17.
18. // analyze user's input
19. if ($n > 0)
20. {
21.     printf("You picked a positive number!\n");
22. }
23. else if ($n == 0)
24. {
25.     printf("You picked zero!\n");
26. }
27. else
28. {
29.     printf("You picked a negative number!\n");
30. }
31.
32. ?>
```



```
1. <?php
2.
3.  /* *****
4.   * hello1.php
5.   *
6.   * David J. Malan
7.   * malan@harvard.edu
8.   *
9.   * Says hello to the world.
10.  *
11.  * Demonstrates use of printf.
12.  *****/
13.
14. printf("hello, world\n");
15.
16. ?>
```

```
1. #!/bin/php
2. <?php
3.
4.      /*****
5.       * hello2.php
6.       *
7.       * David J. Malan
8.       * malan@harvard.edu
9.       *
10.      * Says hello to the world.
11.      *
12.      * Demonstrates use of a shebang.
13.      *****/
14.
15.      printf("hello, world\n");
16.
17. ?>
```

```
1. #!/bin/env php
2. <?php
3.
4.      /*****
5.       * hello3.php
6.       *
7.       * David J. Malan
8.       * malan@harvard.edu
9.       *
10.      * Says hello to the world.
11.      *
12.      * Demonstrates use of a shebang with env.
13.      *****/
14.
15.      printf("hello, world\n");
16.
17. ?>
```

```
1. <?php
2.
3. /*****
4.  * return.php
5.  *
6.  * David J. Malan
7.  * malan@harvard.edu
8.  *
9.  * Cubes a variable.
10. *
11. * Demonstrates use of parameter and return value.
12. *****/
13.
14. $x = 2;
15. printf("x is now %d\n", $x);
16. printf("Cubing...\n");
17. $x = cube($x);
18. printf("Cubed!\n");
19. printf("x is now %d\n", $x);
20.
21. /**
22.  * Cubes argument.
23.  */
24. function cube($a)
25. {
26.     return $a * $a * $a;
27. }
28.
29. ?>
```