

```
1. <?
2.  /*****
3.   * froshims0.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMs.
9.   * Submits to register0.php.
10.  *****/
11. ?>
12.
13. <!DOCTYPE html>
14.
15. <html>
16.   <head>
17.     <title>Frosh IMs</title>
18.   </head>
19.   <body>
20.     <div style="text-align: center">
21.       <h1>Register for Frosh IMs</h1>
22.       <br><br>
23.       <form action="register0.php" method="post">
24.         <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
25.           <tr>
26.             <td>Name:</td>
27.             <td><input name="name" type="text"></td>
28.           </tr>
29.           <tr>
30.             <td>Captain:</td>
31.             <td><input name="captain" type="checkbox"></td>
32.           </tr>
33.           <tr>
34.             <td>Gender:</td>
35.             <td>
36.               <input name="gender" type="radio" value="F"> F
37.               <input name="gender" type="radio" value="M"> M
38.             </td>
39.           </tr>
40.           <tr>
41.             <td>Dorm:</td>
42.             <td>
43.               <select name="dorm">
44.                 <option value=""></option>
45.                 <option value="Apley Court">Apley Court</option>
46.                 <option value="Canaday">Canaday</option>
47.                 <option value="Grays">Grays</option>
48.                 <option value="Greenough">Greenough</option>
```

```
49.         <option value="Hollis">Hollis</option>
50.         <option value="Holworthy">Holworthy</option>
51.         <option value="Hurlbut">Hurlbut</option>
52.         <option value="Lionel">Lionel</option>
53.         <option value="Matthews">Matthews</option>
54.         <option value="Mower">Mower</option>
55.         <option value="Pennypacker">Pennypacker</option>
56.         <option value="Stoughton">Stoughton</option>
57.         <option value="Straus">Straus</option>
58.         <option value="Thayer">Thayer</option>
59.         <option value="Weld">Weld</option>
60.         <option value="Wigglesworth">Wigglesworth</option>
61.     </select>
62. </td>
63. </tr>
64. </table>
65. <br><br>
66. <input type="submit" value="Register!">
67. </form>
68. </div>
69. </body>
70. </html>
```

```
1. <?
2.  /*****
3.   * froshims1.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMs.
9.   * Submits to register1.php.
10.  *****/
11. ?>
12.
13. <!DOCTYPE html>
14.
15. <html>
16.   <head>
17.     <title>Frosh IMs</title>
18.   </head>
19.   <body>
20.     <div style="text-align: center">
21.       <h1>Register for Frosh IMs</h1>
22.       <br><br>
23.       <form action="register1.php" method="post">
24.         <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
25.           <tr>
26.             <td>Name:</td>
27.             <td><input name="name" type="text"></td>
28.           </tr>
29.           <tr>
30.             <td>Captain:</td>
31.             <td><input name="captain" type="checkbox"></td>
32.           </tr>
33.           <tr>
34.             <td>Gender:</td>
35.             <td>
36.               <input name="gender" type="radio" value="F"> F
37.               <input name="gender" type="radio" value="M"> M
38.             </td>
39.           </tr>
40.           <tr>
41.             <td>Dorm:</td>
42.             <td>
43.               <select name="dorm">
44.                 <option value=""></option>
45.                 <option value="Apley Court">Apley Court</option>
46.                 <option value="Canaday">Canaday</option>
47.                 <option value="Grays">Grays</option>
48.                 <option value="Greenough">Greenough</option>
```

```
49.         <option value="Hollis">Hollis</option>
50.         <option value="Holworthy">Holworthy</option>
51.         <option value="Hurlbut">Hurlbut</option>
52.         <option value="Lionel">Lionel</option>
53.         <option value="Matthews">Matthews</option>
54.         <option value="Mower">Mower</option>
55.         <option value="Pennypacker">Pennypacker</option>
56.         <option value="Stoughton">Stoughton</option>
57.         <option value="Straus">Straus</option>
58.         <option value="Thayer">Thayer</option>
59.         <option value="Weld">Weld</option>
60.         <option value="Wigglesworth">Wigglesworth</option>
61.     </select>
62. </td>
63. </tr>
64. </table>
65. <br><br>
66. <input type="submit" value="Register!">
67. </form>
68. </div>
69. </body>
70. </html>
```

```
1. <?
2.  /*****
3.   * froshims2.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMs.
9.   * Submits to register2.php.
10.  *****/
11. ?>
12.
13. <!DOCTYPE html>
14.
15. <html>
16.   <head>
17.     <title>Frosh IMs</title>
18.   </head>
19.   <body>
20.     <div style="text-align: center;">
21.       <h1>Register for Frosh IMs</h1>
22.       <br><br>
23.       <form action="register2.php" method="post">
24.         <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
25.           <tr>
26.             <td>Name:</td>
27.             <td><input name="name" type="text"></td>
28.           </tr>
29.           <tr>
30.             <td>Captain:</td>
31.             <td><input name="captain" type="checkbox"></td>
32.           </tr>
33.           <tr>
34.             <td>Gender:</td>
35.             <td>
36.               <input name="gender" type="radio" value="F"> F
37.               <input name="gender" type="radio" value="M"> M
38.             </td>
39.           </tr>
40.           <tr>
41.             <td>Dorm:</td>
42.             <td>
43.               <select name="dorm">
44.                 <option value=""></option>
45.                 <option value="Apley Court">Apley Court</option>
46.                 <option value="Canaday">Canaday</option>
47.                 <option value="Grays">Grays</option>
48.                 <option value="Greenough">Greenough</option>
```

```
49.         <option value="Hollis">Hollis</option>
50.         <option value="Holworthy">Holworthy</option>
51.         <option value="Hurlbut">Hurlbut</option>
52.         <option value="Lionel">Lionel</option>
53.         <option value="Matthews">Matthews</option>
54.         <option value="Mower">Mower</option>
55.         <option value="Pennypacker">Pennypacker</option>
56.         <option value="Stoughton">Stoughton</option>
57.         <option value="Straus">Straus</option>
58.         <option value="Thayer">Thayer</option>
59.         <option value="Weld">Weld</option>
60.         <option value="Wigglesworth">Wigglesworth</option>
61.     </select>
62. </td>
63. </tr>
64. </table>
65. <br><br>
66. <input type="submit" value="Register!">
67. </form>
68. </div>
69. </body>
70. </html>
```

```
1. <?
2.  /*****
3.   * froshims3.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMs.
9.   * Submits to register3.php.
10.  *****/
11. ?>
12.
13. <!DOCTYPE html>
14.
15. <html>
16.   <head>
17.     <title>Frosh IMs</title>
18.   </head>
19.   <body>
20.     <div style="text-align: center">
21.       <h1>Register for Frosh IMs</h1>
22.       <br><br>
23.       <form action="register3.php" method="post">
24.         <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
25.           <tr>
26.             <td>Name:</td>
27.             <td><input name="name" type="text"></td>
28.           </tr>
29.           <tr>
30.             <td>Captain:</td>
31.             <td><input name="captain" type="checkbox"></td>
32.           </tr>
33.           <tr>
34.             <td>Gender:</td>
35.             <td>
36.               <input name="gender" type="radio" value="F"> F
37.               <input name="gender" type="radio" value="M"> M
38.             </td>
39.           </tr>
40.           <tr>
41.             <td>Dorm:</td>
42.             <td>
43.               <select name="dorm">
44.                 <option value=""></option>
45.                 <option value="Apley Court">Apley Court</option>
46.                 <option value="Canaday">Canaday</option>
47.                 <option value="Grays">Grays</option>
48.                 <option value="Greenough">Greenough</option>
```

```
49.         <option value="Hollis">Hollis</option>
50.         <option value="Holworthy">Holworthy</option>
51.         <option value="Hurlbut">Hurlbut</option>
52.         <option value="Lionel">Lionel</option>
53.         <option value="Matthews">Matthews</option>
54.         <option value="Mower">Mower</option>
55.         <option value="Pennypacker">Pennypacker</option>
56.         <option value="Stoughton">Stoughton</option>
57.         <option value="Straus">Straus</option>
58.         <option value="Thayer">Thayer</option>
59.         <option value="Weld">Weld</option>
60.         <option value="Wigglesworth">Wigglesworth</option>
61.     </select>
62. </td>
63. </tr>
64. </table>
65. <br><br>
66. <input type="submit" value="Register!" />
67. </form>
68. </div>
69. </body>
70. </html>
```



```
1. <?
2.  /*****
3.   * froshims4.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMS.  Submits to itself.
9.   *****/
10.
11. // if form was actually submitted, check for error
12. if (isset($_POST["action"]))
13. {
14.     if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"]))
15.         $error = true;
16. }
17. ?>
18.
19. <!DOCTYPE html>
20.
21. <html>
22.     <head>
23.         <title>Frosh IMS</title>
24.     </head>
25.     <body>
26.         <div style="text-align: center">
27.             <h1>Register for Frosh IMS</h1>
28.             <? if (isset($error)): ?>
29.                 <div style="color: red">You must fill out the form!</div>
30.             <? endif ?>
31.             <br><br>
32.             <form action="froshims4.php" method="post">
33.                 <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
34.                     <tr>
35.                         <td>Name:</td>
36.                         <td><input name="name" type="text"></td>
37.                     </tr>
38.                     <tr>
39.                         <td>Captain:</td>
40.                         <td><input name="captain" type="checkbox"></td>
41.                     </tr>
42.                     <tr>
43.                         <td>Gender:</td>
44.                         <td>
45.                             <input name="gender" type="radio" value="F"> F
46.                             <input name="gender" type="radio" value="M"> M
47.                         </td>
48.                     </tr>
```

```
49.         <tr>
50.             <td>Dorm:</td>
51.             <td>
52.                 <select name="dorm">
53.                     <option value=""></option>
54.                     <option value="Apley Court">Apley Court</option>
55.                     <option value="Canaday">Canaday</option>
56.                     <option value="Grays">Grays</option>
57.                     <option value="Greenough">Greenough</option>
58.                     <option value="Hollis">Hollis</option>
59.                     <option value="Holworthy">Holworthy</option>
60.                     <option value="Hurlbut">Hurlbut</option>
61.                     <option value="Lionel">Lionel</option>
62.                     <option value="Matthews">Matthews</option>
63.                     <option value="Mower">Mower</option>
64.                     <option value="Pennypacker">Pennypacker</option>
65.                     <option value="Stoughton">Stoughton</option>
66.                     <option value="Straus">Straus</option>
67.                     <option value="Thayer">Thayer</option>
68.                     <option value="Weld">Weld</option>
69.                     <option value="Wigglesworth">Wigglesworth</option>
70.                 </select>
71.             </td>
72.         </tr>
73.     </table>
74.     <br><br>
75.     <input name="action" type="submit" value="Register!">
76. </form>
77. </div>
78. </body>
79. </html>
```

```
1. <?
2.  /*****
3.   * froshims5.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMs.  Submits to itself.
9.   * Pre-populates name field upon error.
10.  *****/
11.
12.  // if form was actually submitted, check for error
13.  if (isset($_POST["action"]))
14.  {
15.      if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"]))
16.          $error = true;
17.  }
18. ?>
19.
20. <!DOCTYPE html>
21.
22. <html>
23.   <head>
24.     <title>Frosh IMs</title>
25.   </head>
26.   <body>
27.     <div style="text-align: center">
28.       <h1>Register for Frosh IMs</h1>
29.       <? if (isset($error)): ?>
30.         <div style="color: red">You must fill out the form!</div>
31.       <? endif ?>
32.       <br><br>
33.       <form action="froshims5.php" method="post">
34.         <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
35.           <tr>
36.             <td>Name:</td>
37.             <td><input name="name" type="text" value="<? if (isset($_POST["name"])) echo htmlspecialchars($_POST["name"]); ?>"></td>
38.           </tr>
39.           <tr>
40.             <td>Captain:</td>
41.             <td><input name="captain" type="checkbox"></td>
42.           </tr>
43.           <tr>
44.             <td>Gender:</td>
45.             <td>
46.               <input name="gender" type="radio" value="F"> F
47.               <input name="gender" type="radio" value="M"> M
48.             </td>
```

```
49.         </tr>
50.     <tr>
51.         <td>Dorm:</td>
52.         <td>
53.             <select name="dorm">
54.                 <option value=""></option>
55.                 <option value="Apley Court">Apley Court</option>
56.                 <option value="Canaday">Canaday</option>
57.                 <option value="Grays">Grays</option>
58.                 <option value="Greenough">Greenough</option>
59.                 <option value="Hollis">Hollis</option>
60.                 <option value="Holworthy">Holworthy</option>
61.                 <option value="Hurlbut">Hurlbut</option>
62.                 <option value="Lionel">Lionel</option>
63.                 <option value="Matthews">Matthews</option>
64.                 <option value="Mower">Mower</option>
65.                 <option value="Pennypacker">Pennypacker</option>
66.                 <option value="Stoughton">Stoughton</option>
67.                 <option value="Straus">Straus</option>
68.                 <option value="Thayer">Thayer</option>
69.                 <option value="Weld">Weld</option>
70.                 <option value="Wigglesworth">Wigglesworth</option>
71.             </select>
72.         </td>
73.     </tr>
74. </table>
75. <br><br>
76.     <input name="action" type="submit" value="Register!">
77. </form>
78. </div>
79. </body>
80. </html>
```

```
1. <?
2.  /*****
3.   * froshims6.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMs.  Submits to itself.
9.   * Generates list of dorms via an array.
10.  *****/
11.
12.  // array of dorms
13.  $DORMS = array(
14.    "Apley Court",
15.    "Canaday",
16.    "Grays",
17.    "Greenough",
18.    "Hollis",
19.    "Holworthy",
20.    "Hurlbut",
21.    "Lionel",
22.    "Matthews",
23.    "Mower",
24.    "Pennypacker",
25.    "Stoughton",
26.    "Straus",
27.    "Thayer",
28.    "Weld",
29.    "Wigglesworth"
30.  );
31.
32.  // if form was actually submitted, check for error
33.  if (isset($_POST["action"]))
34.  {
35.      if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"]))
36.          $error = true;
37.  }
38. ?>
39.
40.
41. <!DOCTYPE html>
42.
43. <html>
44.   <head>
45.     <title>Frosh IMs</title>
46.   </head>
47.   <body>
48.     <div align="center">
```

```
49. <h1>Register for Frosh IMs</h1>
50. <? if (isset($error)): ?>
51. <div style="color: red;">You must fill out the form!</div>
52. <? endif ?>
53. <br><br>
54. <form action="froshims6.php" method="post">
55. <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
56. <tr>
57. <td>Name:</td>
58. <td><input name="name" type="text" value="<? if (isset($_POST["name"])) echo htmlspecialchars($_POST["name"]) ?>"></td>
59. </tr>
60. <tr>
61. <td>Captain:</td>
62. <td><input name="captain" type="checkbox"></td>
63. </tr>
64. <tr>
65. <td>Gender:</td>
66. <td>
67. <input name="gender" type="radio" value="F"> F
68. <input name="gender" type="radio" value="M"> M
69. </td>
70. </tr>
71. <tr>
72. <td>Dorm:</td>
73. <td>
74. <select name="dorm">
75. <option value=""></option>
76. <? foreach ($DORMS as $dorm): ?>
77. <option value="<?= $dorm ?>"><?= $dorm ?></option>
78. <? endforeach ?>
79. </select>
80. </td>
81. </tr>
82. </table>
83. <br><br>
84. <input name="action" type="submit" value="Register!">
85. </form>
86. </div>
87. </body>
88. </html>
```

```
1. <?
2.  /*****
3.   * froshims7.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMS.  Submits to itself.
9.   * Generates list of dorms via an array.  Pre-populates name and
10.  * dorm fields upon error.
11.  *****/
12.
13.  // array of dorms
14.  $DORMS = array(
15.    "Apley Court",
16.    "Canaday",
17.    "Grays",
18.    "Greenough",
19.    "Hollis",
20.    "Holworthy",
21.    "Hurlbut",
22.    "Lionel",
23.    "Matthews",
24.    "Mower",
25.    "Pennypacker",
26.    "Stoughton",
27.    "Straus",
28.    "Thayer",
29.    "Weld",
30.    "Wigglesworth"
31.  );
32.
33.  // if form was actually submitted, check for error
34.  if (isset($_POST["action"]))
35.  {
36.    if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"]))
37.      $error = true;
38.  }
39.  ?>
40.
41. <!DOCTYPE html>
42.
43. <html>
44.   <head>
45.     <title>Frosh IMS</title>
46.   </head>
47.   <body>
48.     <div style="text-align: center">
```

```
49. <h1>Register for Frosh IMs</h1>
50. <? if (isset($error)): ?>
51. <div style="color: red;">You must fill out the form!</div>
52. <? endif ?>
53. <br><br>
54. <form action="froshims7.php" method="post">
55. <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
56. <tr>
57. <td>Name:</td>
58. <td><input name="name" type="text" value="<? if (isset($_POST["name"])) echo htmlspecialchars($_POST["name"]) ?>"></td>
59. </tr>
60. <tr>
61. <td>Captain:</td>
62. <td><input name="captain" type="checkbox"></td>
63. </tr>
64. <tr>
65. <td>Gender:</td>
66. <td>
67. <input name="gender" type="radio" value="F"> F
68. <input name="gender" type="radio" value="M"> M
69. </td>
70. </tr>
71. <tr>
72. <td>Dorm:</td>
73. <td>
74. <select name="dorm">
75. <option value=""></option>
76. <?
77. <foreach ($DORMS as $dorm)
78. {
79. <if (isset($_POST["dorm"]) && $_POST["dorm"] == $dorm)
80. <echo "<option selected='selected' value='<$dorm'><$dorm</option>";
81. <else
82. <echo "<option value='<$dorm'><$dorm</option>";
83. <}
84. <?>
85. </select>
86. </td>
87. </tr>
88. </table>
89. <br><br>
90. <input name="action" type="submit" value="Register!">
91. </form>
92. </div>
93. </body>
94. </html>
```



```
1. <?
2.  /*****
3.   * froshims8.php
4.   *
5.   * David J. Malan
6.   * malan@harvard.edu
7.   *
8.   * Implements a registration form for Frosh IMs. Submits to
9.   * register8.php.
10.  *****/
11. ?>
12.
13. <!DOCTYPE html>
14.
15. <html>
16.   <head>
17.     <title>Frosh IMs</title>
18.   </head>
19.   <body>
20.     <div style="text-align: center">
21.       <h1>Register for Frosh IMs</h1>
22.       <br><br>
23.       <form action="register8.php" method="post">
24.         <table style="border: 0; margin-left: auto; margin-right: auto; text-align: left">
25.           <tr>
26.             <td>Name:</td>
27.             <td><input name="name" type="text"></td>
28.           </tr>
29.           <tr>
30.             <td>Captain:</td>
31.             <td><input name="captain" type="checkbox"></td>
32.           </tr>
33.           <tr>
34.             <td>Gender:</td>
35.             <td>
36.               <input name="gender" type="radio" value="F"> F
37.               <input name="gender" type="radio" value="M"> M
38.             </td>
39.           </tr>
40.           <tr>
41.             <td>Dorm:</td>
42.             <td>
43.               <select name="dorm">
44.                 <option value=""></option>
45.                 <option value="Apley Court">Apley Court</option>
46.                 <option value="Canaday">Canaday</option>
47.                 <option value="Grays">Grays</option>
48.                 <option value="Greenough">Greenough</option>
```

```
49.         <option value="Hollis">Hollis</option>
50.         <option value="Holworthy">Holworthy</option>
51.         <option value="Hurlbut">Hurlbut</option>
52.         <option value="Lionel">Lionel</option>
53.         <option value="Matthews">Matthews</option>
54.         <option value="Mower">Mower</option>
55.         <option value="Pennypacker">Pennypacker</option>
56.         <option value="Stoughton">Stoughton</option>
57.         <option value="Straus">Straus</option>
58.         <option value="Thayer">Thayer</option>
59.         <option value="Weld">Weld</option>
60.         <option value="Wigglesworth">Wigglesworth</option>
61.     </select>
62. </td>
63. </tr>
64. </table>
65. <br><br>
66. <input type="submit" value="Register!">
67. </form>
68. </div>
69. </body>
70. </html>
```

```
1. <?
2.  /*****
3.   * register0.php
4.   *
5.   * Computer Science 50
6.   * David J. Malan
7.   *
8.   * Dumps contents of $_POST.
9.   *****/
10.
11. ?>
12.
13. <!DOCTYPE html>
14.
15. <html>
16.   <head>
17.     <title>Frosh IMs</title>
18.   </head>
19.   <body>
20.     <pre>
21.       <? print_r($_POST); ?>
22.     </pre>
23.   </body>
24. </html>
```

```
1. <?
2.  /*****
3.   * register1.php
4.   *
5.   * Computer Science 50
6.   * David J. Malan
7.   *
8.   * Implements a registration form for Frosh IMs. Redirects
9.   * user to froshims1.php upon error.
10.  *****/
11.
12.  // validate submission
13.  if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"]))
14.  {
15.      header("Location: http://localhost/~jharvard/froshims/froshims1.php");
16.      exit;
17.  }
18.
19. ?>
20.
21. <!DOCTYPE html>
22.
23. <html>
24.   <head>
25.     <title>Frosh IMs</title>
26.   </head>
27.   <body>
28.     You are registered! (Well, not really.)
29.   </body>
30. </html>
```

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

```
1. <?
2.  /*****
3.   * register3.php
4.   *
5.   * Computer Science 50
6.   * David J. Malan
7.   *
8.   * Implements a registration form for Frosh IMs. Reports registration
9.   * via email. Redirects user to froshims3.php upon error.
10.  *****/
11.
12.  // validate submission
13.  if (!empty($_POST["name"]) && !empty($_POST["gender"]) && !empty($_POST["dorm"]))
14.  {
15.
16.      $to = "malan@cs50.net";
17.      $subject = "Registration";
18.      $body = "This person just registered:\n\n" .
19.             $_POST["name"] . "\n" .
20.             $_POST["captain"] . "\n" .
21.             $_POST["gender"] . "\n" .
22.             $_POST["dorm"];
23.      $headers = "From: malan@cs50.net\r\n";
24.      mail($to, $subject, $body, $headers);
25.  }
26.  else
27.  {
28.      header("Location: http://localhost/~jharvard/froshims/froshims3.php");
29.      exit;
30.  }
31. ?>
32.
33. <!DOCTYPE html>
34.
35. <html>
36.   <head>
37.     <title>Frosh IMs</title>
38.   </head>
39.   <body>
40.     You are registered! (Really.)
41.   </body>
42. </html>
```

```
1. <?
2.  /*****
3.   * register8.php
4.   *
5.   * Computer Science 50
6.   * David J. Malan
7.   *
8.   * Implements a registration form for Frosh IMs. Records registration
9.   * in database. Redirects user to froshims8.php upon error.
10.  *****/
11.
12.  // validate submission
13.  if (empty($_POST["name"]) || empty($_POST["gender"]) || empty($_POST["dorm"]))
14.  {
15.      header("Location: http://localhost/~jharvard/froshims/froshims8.php");
16.      exit;
17.  }
18.
19.  // connect to database
20.  mysql_connect("localhost", "jharvard", "crimson");
21.  mysql_select_db("jharvard_froshims");
22.
23.  // scrub inputs
24.  $name = mysql_real_escape_string($_POST["name"]);
25.  if ($_POST["captain"])
26.      $captain = 1;
27.  else
28.      $captain = 0;
29.  $gender = mysql_real_escape_string($_POST["gender"]);
30.  $dorm = mysql_real_escape_string($_POST["dorm"]);
31.
32.  // prepare query
33.  $sql = "INSERT INTO registrants (name, captain, gender, dorm)
34.  VALUES('$name', $captain, '$gender', '$dorm)";
35.
36.  // execute query
37.  mysql_query($sql);
38. ?>
39.
40. <!DOCTYPE html>
41.
42. <html>
43.   <head>
44.     <title>Frosh IMs</title>
45.   </head>
46.   <body>
47.     You are registered! (Really.)
48.   </body>
```

49. </html>


```
1. <?
2.     // connect to database
3.     mysql_connect("localhost", "jharvard", "crimson");
4.     mysql_select_db("jharvard_froshims");
5.
6.     // prepare query
7.     $sql = "SELECT * FROM registrants";
8.
9.     // execute query
10.    $result = mysql_query($sql);
11. ?>
12.
13. <!DOCTYPE html>
14.
15. <html>
16.     <head>
17.         <title>Frosh IMs</title>
18.     </head>
19.     <body>
20.         <ul>
21.             <?
22.                 // iterate over results
23.                 while ($row = mysql_fetch_array($result))
24.                 {
25.                     print("<li>");
26.                     print(htmlspecialchars($row["name"]));
27.                     print("</li>");
28.                 }
29.             ?>
30.         </ul>
31.     </body>
32. </html>
```

```
1. <?
2.     /**
3.      * home.php
4.      *
5.      * A simple home page for these login demos.
6.      *
7.      * David J. Malan
8.      * malan@harvard.edu
9.      */
10.
11.     // enable sessions
12.     session_start();
13. ?>
14.
15. <!DOCTYPE html>
16.
17. <html>
18.     <head>
19.         <title>Home</title>
20.     </head>
21.     <body>
22.         <h1>Home</h1>
23.         <h3>
24.             <? if (isset($_SESSION["authenticated"]) && $_SESSION["authenticated"] === true) { ?>
25.                 You are logged in!
26.                 <br>
27.                 <a href="logout.php">log out</a>
28.             <? } else { ?>
29.                 You are not logged in!
30.             <? } ?>
31.         </h3>
32.         <br>
33.         <b>Login Demos</b>
34.         <ul>
35.             <li><a href="login1.php">version 1</a></li>
36.             <li><a href="login2.php">version 2</a></li>
37.             <li><a href="login3.php">version 3</a></li>
38.             <li><a href="login4.php">version 4</a></li>
39.         </ul>
40.     </body>
41. </html>
```

```
1. <?
2.  /**
3.   * login1.php
4.   *
5.   * A simple login module.
6.   *
7.   * David J. Malan
8.   * malan@harvard.edu
9.   */
10.
11. // enable sessions
12. session_start();
13.
14. // were this not a demo, these would be in some database
15. define("USER", "jharvard");
16. define("PASS", "crimson");
17.
18. // if username and password were submitted, check them
19. if (isset($_POST["user"]) && isset($_POST["pass"]))
20. {
21.     // if username and password are valid, log user in
22.     if ($_POST["user"] == USER && $_POST["pass"] == PASS)
23.     {
24.         // remember that user's logged in
25.         $_SESSION["authenticated"] = true;
26.
27.         // redirect user to home page, using absolute path, per
28.         // http://us2.php.net/manual/en/function.header.php
29.         $host = $_SERVER["HTTP_HOST"];
30.         $path = rtrim(dirname($_SERVER["PHP_SELF"]), "\\");
31.         header("Location: http://$host$path/home.php");
32.         exit;
33.     }
34. }
35. ?>
36.
37. <!DOCTYPE html>
38.
39. <html>
40. <head>
41. <title>Log In</title>
42. </head>
43. <body>
44. <? if (count($_POST) > 0) echo "INVALID LOGIN"; ?>
45. <form action="<?= $_SERVER["PHP_SELF"] ?>" method="post">
46. <table>
47. <tr>
48. <td>Username:</td>
```

```
49.         <td><input name="user" type="text"></td>
50.     </tr>
51.     <tr>
52.         <td>Password:</td>
53.         <td><input name="pass" type="password"></td>
54.     </tr>
55.     <tr>
56.         <td></td>
57.         <td><input type="submit" value="Log In"></td>
58.     </tr>
59. </table>
60. </form>
61. </body>
62. </html>
```

```
1. <?
2.     /**
3.      * login2.php
4.      *
5.      * A simple login module that pre-populates the username field
6.      * upon failed login, just in case user simply mistyped password.
7.      *
8.      * David J. Malan
9.      * malan@harvard.edu
10.     */
11.
12.     // enable sessions
13.     session_start();
14.
15.     // were this not a demo, these would be in some database
16.     define("USER", "jharvard");
17.     define("PASS", "crimson");
18.
19.     // if username and password were submitted, check them
20.     if (isset($_POST["user"]) && isset($_POST["pass"]))
21.     {
22.         // if username and password are valid, log user in
23.         if ($_POST["user"] == USER && $_POST["pass"] == PASS)
24.         {
25.             // remember that user's logged in
26.             $_SESSION["authenticated"] = true;
27.
28.             // redirect user to home page, using absolute path, per
29.             // http://us2.php.net/manual/en/function.header.php
30.             $host = $_SERVER["HTTP_HOST"];
31.             $path = rtrim(dirname($_SERVER["PHP_SELF"]), "\\");
32.             header("Location: http://$host$path/home.php");
33.             exit;
34.         }
35.     }
36. ?>
37.
38. <!DOCTYPE html>
39.
40. <html>
41.     <head>
42.         <title>Log In</title>
43.     </head>
44.     <body>
45.         <form action="<?- $_SERVER["PHP_SELF"] ?>" method="post">
46.             <table>
47.                 <tr>
48.                     <td>Username:</td>
```

```
49.         <td><input name="user" type="text" value="<? if (isset($_POST["user"])) echo htmlspecialchars($_POST["user"]) ?>"></td>
50.     </tr>
51.     <tr>
52.         <td>Password:</td>
53.         <td><input name="pass" type="password"></td>
54.     </tr>
55.     <tr>
56.         <td></td>
57.         <td><input type="submit" value="Log In"></td>
58.     </tr>
59. </table>
60. </form>
61. </body>
62. </html>
```

```
1. <?
2.     /**
3.      * login3.php
4.      *
5.      * A simple login module that remembers username of most recently
6.      * authenticated user so that it can pre-populate the username
7.      * field next time.
8.      *
9.      * David J. Malan
10.     * malan@harvard.edu
11.     */
12.
13.     // enable sessions
14.     session_start();
15.
16.     // were this not a demo, these would be in some database
17.     define("USER", "jharvard");
18.     define("PASS", "crimson");
19.
20.     // if username and password were submitted, check them
21.     if (isset($_POST["user"]) && isset($_POST["pass"]))
22.     {
23.         // if username and password are valid, log user in
24.         if ($_POST["user"] == USER && $_POST["pass"] == PASS)
25.         {
26.             // remember that user's logged in
27.             $_SESSION["authenticated"] = true;
28.
29.             // save username in cookie for a week
30.             setcookie("user", $_POST["user"], time() + 7 * 24 * 60 * 60);
31.
32.             // redirect user to home page, using absolute path, per
33.             // http://us2.php.net/manual/en/function.header.php
34.             $host = $_SERVER["HTTP_HOST"];
35.             $path = rtrim(dirname($_SERVER["PHP_SELF"]), "\\");
36.             header("Location: http://$host$path/home.php");
37.             exit;
38.         }
39.     }
40. ?>
41.
42. <!DOCTYPE html>
43.
44. <html>
45.     <head>
46.         <title>Log In</title>
47.     </head>
48.     <body>
```

```
49. <form action="<?= $_SERVER["PHP_SELF"] ?>" method="post">
50.   <table>
51.     <tr>
52.       <td>Username:</td>
53.       <td>
54.         <? if (isset($_POST["user"])): ?>
55.           <input name="user" type="text" value="<?= htmlspecialchars($_POST["user"]) ?>">
56.         <? elseif (isset($_COOKIE["user"])): ?>
57.           <input name="user" type="text" value="<?= htmlspecialchars($_COOKIE["user"]) ?>">
58.         <? else: ?>
59.           <input name="user" type="text" value="">
60.         <? endif ?>
61.       </td>
62.     </tr>
63.     <tr>
64.       <td>Password:</td>
65.       <td><input name="pass" type="password"></td>
66.     </tr>
67.     <td></td>
68.     <td><input type="submit" value="Log In"></td>
69.   </tr>
70. </table>
71. </form>
72. </body>
73. </html>
```



```
1. <?
2.     /**
3.      * login4.php
4.      *
5.      * A simple login module that lets a user stay logged in
6.      * by saving username and, ack, password in cookies.
7.      *
8.      * David J. Malan
9.      * malan@harvard.edu
10.     */
11.
12.     // enable sessions
13.     session_start();
14.
15.     // were this not a demo, these would be in some database
16.     define("USER", "jharvard");
17.     define("PASS", "crimson");
18.
19.     // if username and password were saved in cookie, check them
20.     if (isset($_COOKIE["user"]) && isset($_COOKIE["pass"]))
21.     {
22.         // if username and password are valid, log user back in
23.         if ($_COOKIE["user"] == USER && $_COOKIE["pass"] == PASS)
24.         {
25.             // remember that user's logged in
26.             $_SESSION["authenticated"] = true;
27.
28.             // re-save username and, ack, password in cookies for another week
29.             setcookie("user", $_COOKIE["user"], time() + 7 * 24 * 60 * 60);
30.             setcookie("pass", $_COOKIE["pass"], time() + 7 * 24 * 60 * 60);
31.
32.             // redirect user to home page, using absolute path, per
33.             // http://us2.php.net/manual/en/function.header.php
34.             $host = $_SERVER["HTTP_HOST"];
35.             $path = rtrim(dirname($_SERVER["PHP_SELF"]), "\\");
36.             header("Location: http://$host$path/home.php");
37.             exit;
38.         }
39.     }
40.
41.     // else if username and password were submitted, grab them instead
42.     else if (isset($_POST["user"]) && isset($_POST["pass"]))
43.     {
44.         // if username and password are valid, log user in
45.         if ($_POST["user"] == USER && $_POST["pass"] == PASS)
46.         {
47.             // remember that user's logged in
48.             $_SESSION["authenticated"] = true;
```

```
49.
50.     // save username in cookie for a week
51.     setcookie("user", $_POST["user"], time() + 7 * 24 * 60 * 60);
52.
53.     // save password in, ack, cookie for a week if requested
54.     if ($_POST["keep"])
55.         setcookie("pass", $_POST["pass"], time() + 7 * 24 * 60 * 60);
56.
57.     // redirect user to home page, using absolute path, per
58.     // http://us2.php.net/manual/en/function.header.php
59.     $host = $_SERVER['HTTP_HOST'];
60.     $path = rtrim(dirname($_SERVER["PHP_SELF"]), "\\");
61.     header("Location: http://$host$path/home.php");
62.     exit;
63. }
64. }
65. ?>
66.
67. <!DOCTYPE html>
68.
69. <html>
70.     <head>
71.         <title>Log In</title>
72.     </head>
73.     <body>
74.         <form action="<?=$_SERVER["PHP_SELF"] ?>" method="post">
75.             <table>
76.                 <tr>
77.                     <td>Username:</td>
78.                     <td>
79.                         <? if (isset($_POST["user"])): ?>
80.                             <input name="user" type="text" value="<?=$_SERVER["PHP_SELF"] ?>">
81.                         <? elseif (isset($_COOKIE["user"])): ?>
82.                             <input name="user" type="text" value="<?=$_SERVER["PHP_SELF"] ?>">
83.                         <? else: ?>
84.                             <input name="user" type="text" value="">
85.                         <? endif ?>
86.                     </td>
87.                 </tr>
88.                 <tr>
89.                     <td>Password:</td>
90.                     <td><input name="pass" type="password"></td>
91.                 </tr>
92.                 <tr>
93.                     <td></td>
94.                     <td><input name="keep" type="checkbox"> &nbsp; keep me logged in until I click <b>log out</b></td>
95.                 </tr>
96.                 <tr>
```

```
97.         <td></td>
98.         <td><input type="submit" value="Log In"></td>
99.     </tr>
100. </table>
101. </form>
102. </body>
103. </html>
```

```
1. <?
2.     /**
3.      * logout.php
4.      *
5.      * A simple logout module for all of our login modules.
6.      *
7.      * David J. Malan
8.      * malan@harvard.edu
9.      */
10.
11.     // enable sessions
12.     session_start();
13.
14.     // delete cookies, if any
15.     setcookie("user", "", time() - 3600);
16.     setcookie("pass", "", time() - 3600);
17.
18.     // log user out
19.     setcookie(session_name(), "", time() - 3600);
20.     session_destroy();
21. ?>
22.
23. <!DOCTYPE html>
24.
25. <html>
26.     <head>
27.         <title>Log Out</title>
28.     </head>
29.     <body>
30.         <h1>You are logged out!</h1>
31.         <h3><a href="home.php">home</a></h3>
32.     </body>
33. </html>
```

```
1. <!--
2.
3. index.php
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. A homepage for the course.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.   <head>
16.     <meta name="viewport" content="width=device-width">
17.     <title>CSCI S-75</title>
18.   </head>
19.   <body>
20.     <h1>CSCI S-75</h1>
21.     <ul>
22.       <li><a href="lectures.php">Lectures</a></li>
23.       <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/syllabus.pdf">Syllabus</a></li>
24.     </ul>
25.   </body>
26. </html>
```

```
1. <!--
2.
3. lecture0.php
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. Represents a lecture.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.   <head>
16.     <meta name="viewport" content="width=device-width">
17.     <title>Lecture 0</title>
18.   </head>
19.   <body>
20.     <h1>Lecture 0</h1>
21.     <ul>
22.       <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/slides0.pdf">Slides</a></li>
23.       <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/lecture0.mp4">Video</a></li>
24.     </ul>
25.   </body>
26. </html>
```

```
1. <!--
2.
3. lecture1.php
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. Represents a lecture.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.   <head>
16.     <meta name="viewport" content="width=device-width">
17.     <title>Lecture 1</title>
18.   </head>
19.   <body>
20.     <h1>Lecture 1</h1>
21.     <ul>
22.       <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/slides1.pdf">Slides</a></li>
23.       <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/lecture1.mp4">Video</a></li>
24.     </ul>
25.   </body>
26. </html>
```

```
1. <!--
2.
3. lectures.php
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. Links to lectures.
9.
10. -->
11.
12. <!DOCTYPE html>
13.
14. <html>
15.   <head>
16.     <meta name="viewport" content="width=device-width">
17.     <title>Lectures</title>
18.   </head>
19.   <body>
20.     <h1>Lectures</h1>
21.     <ul>
22.       <li><a href="lecture0.php">Lecture 0</a></li>
23.       <li><a href="lecture1.php">Lecture 1</a></li>
24.     </ul>
25.   </body>
26. </html>
```



```
1. <?php /*
2.
3. footer.php
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. A footer for pages.
9.
10. */ ?>
11.
12. </body>
13. </html>
```

```
1. <?php /*
2.
3. header.php
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. A header for pages.
9.
10. */ ?>
11.
12. <!DOCTYPE html>
13.
14. <html>
15.   <head>
16.     <meta name="viewport" content="width=device-width">
17.     <title>CSCI S-75</title>
18.   </head>
19.   <body>
20.     <h1>CSCI S-75</h1>
```

```
1. <?php require('header.php'); ?>
2.
3. <ul>
4.   <li><a href="lectures.php">Lectures</a></li>
5.   <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/syllabus.pdf">Syllabus</a></li>
6. </ul>
7.
8. <?php require('footer.php'); ?>
```

```
1. <?php /*
2.
3. lecture0.php
4.
5. David J. Malan
6. malan@harvard.edu
7.
8. Represents a lecture.
9.
10. */ ?>
11.
12. <?php require('header.php'); ?>
13.
14. <ul>
15.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/slides0.pdf">Slides</a></li>
16.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/lecture0.mp4">Video</a></li>
17. </ul>
18.
19. <?php require('footer.php'); ?>
```

```
1. <?php /*
2.
3.  lecture1.php
4.
5.  David J. Malan
6.  malan@harvard.edu
7.
8.  Represents a lecture.
9.
10. */ ?>
11.
12. <?php require('header.php'); ?>
13.
14. <ul>
15.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/slides1.pdf">Slides</a></li>
16.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/lecture1.mp4">Video</a></li>
17. </ul>
18.
19. <?php require('footer.php'); ?>
```

```
1. <?php /*
2.
3.  lectures.php
4.
5.  David J. Malan
6.  malan@harvard.edu
7.
8.  Links to lectures.
9.
10. */ ?>
11.
12. <?php require('header.php'); ?>
13.
14. <ul>
15.     <li><a href="lecture0.php">Lecture 0</a></li>
16.     <li><a href="lecture1.php">Lecture 1</a></li>
17. </ul>
18.
19. <?php require('footer.php'); ?>
```

1. mvc/1/README
- 2.
3. David J. Malan
4. malan@harvard.edu
- 5.
6. Improves upon mvc/0 by factoring out pages' header and footer.
- 7.
8. footer.php - pages' footer
9. header.php - pages' header
10. index.php - homepage for the course
11. lecture0.php - a lecture
12. lecture1.php - a lecture
13. lectures.php - a list of lectures

1. `</body>`
2. `</html>`


```
1. <!DOCTYPE html>
2.
3. <html>
4.   <head>
5.     <meta name="viewport" content="width=device-width">
6.     <title><?php echo htmlspecialchars($title) ?></title>
7.   </head>
8.   <body>
9.     <h1><?php echo htmlspecialchars($title) ?></h1>
```

```
1. <?php
2.
3. /**
4.  * Renders footer.
5.  *
6.  * @param array $data
7.  */
8. function renderFooter($data = array())
9. {
10.     extract($data);
11.     require('footer.php');
12. }
13.
14. /**
15.  * Renders header.
16.  *
17.  * @param array $data
18.  */
19. function renderHeader($data = array())
20. {
21.     extract($data);
22.     require('header.php');
23. }
24.
25. ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7.
8. <?php renderHeader(array('title' => 'CSCI S-75')); ?>
9.
10. <ul>
11.     <li><a href="lectures.php">Lectures</a></li>
12.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/syllabus.pdf">Syllabus</a></li>
13. </ul>
14.
15. <?php renderFooter(); ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7. <?php renderHeader(array('title' => 'Lecture 0')); ?>
8.
9. <ul>
10.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/slides0.pdf">Slides</a></li>
11.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/lecture0.mp4">Video</a></li>
12. </ul>
13.
14. <?php renderFooter(); ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7. <?php renderHeader(array('title' => 'Lecture 1')); ?>
8.
9. <ul>
10.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/slides1.pdf">Slides</a></li>
11.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/lecture1.mp4">Video</a></li>
12. </ul>
13.
14. <?php renderFooter(); ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7. <?php renderHeader(array('title' => 'Lectures')); ?>
8.
9. <ul>
10.     <li><a href="lecture0.php">Lecture 0</a></li>
11.     <li><a href="lecture1.php">Lecture 1</a></li>
12. </ul>
13.
14. <?php renderFooter(); ?>
```

1. mvc/2/README
- 2.
3. David J. Malan
4. malan@harvard.edu
- 5.
6. Improves upon mvc/1 by wrapping header and footer with a parameterized function.
- 7.
8. footer.php - pages' footer
9. header.php - pages' header
10. helpers.php - helper functions
11. index.php - homepage for the course
12. lecture0.php - a lecture
13. lecture1.php - a lecture
14. lectures.php - a list of lectures

1. `</body>`
2. `</html>`


```
1. <!DOCTYPE html>
2.
3. <html>
4.   <head>
5.     <meta name="viewport" content="width=device-width">
6.     <title><?php echo htmlspecialchars($title) ?></title>
7.   </head>
8.   <body>
9.     <h1><?php echo htmlspecialchars($title) ?></h1>
```

```
1. <?php
2.
3. /**
4.  * Renders template.
5.  *
6.  * @param array $data
7.  */
8. function render($template, $data = array())
9. {
10.     $path = $template . '.php';
11.     if (file_exists($path))
12.     {
13.         extract($data);
14.         require($path);
15.     }
16. }
17.
18. ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7.
8. <?php render('header', array('title' => 'CSCI S-75')); ?>
9.
10. <ul>
11.     <li><a href="lectures.php">Lectures</a></li>
12.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/syllabus.pdf">Syllabus</a></li>
13. </ul>
14.
15. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lecture 0')); ?>
8.
9. <ul>
10.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/slides0.pdf">Slides</a></li>
11.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/lecture0.mp4">Video</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lecture 1')); ?>
8.
9. <ul>
10.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/slides1.pdf">Slides</a></li>
11.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/lecture1.mp4">Video</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lectures')); ?>
8.
9. <ul>
10.     <li><a href="lecture0.php">Lecture 0</a></li>
11.     <li><a href="lecture1.php">Lecture 1</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

1. mvc/3/README
- 2.
3. David J. Malan
4. malan@harvard.edu
- 5.
6. Improves upon mvc/2 by generalizing header and footer as templates.
- 7.
8. footer.php - pages' footer
9. header.php - pages' header
10. helpers.php - helper functions
11. index.php - homepage for the course
12. lecture0.php - a lecture
13. lecture1.php - a lecture
14. lectures.php - a list of lectures

```
1. <?php
2.
3. /**
4.  * Renders template.
5.  *
6.  * @param array $data
7.  */
8. function render($template, $data = array())
9. {
10.     $path = __DIR__ . '/../templates/' . $template . '.php';
11.     if (file_exists($path))
12.     {
13.         extract($data);
14.         require($path);
15.     }
16. }
17.
18. ?>
```



```
1. <?php
2.
3. require_once('includes/helpers.php');
4.
5. ?>
6.
7.
8. <?php render('header', array('title' => 'CS164')); ?>
9.
10. <ul>
11.     <li><a href="lectures.php">Lectures</a></li>
12.     <li><a href="http://cdn.cs164.net/2012/spring/lectures/0/syllabus.pdf">Syllabus</a></li>
13. </ul>
14.
15. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('includes/helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lecture 0')); ?>
8.
9. <ul>
10.     <li><a href="http://cdn.cs164.net/2012/spring/lectures/0/slides0.pdf">Slides</a></li>
11.     <li><a href="http://cdn.cs164.net/2012/spring/lectures/0/lecture0.mp4">Video</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('includes/helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lecture 1')); ?>
8.
9. <ul>
10.     <li><a href="http://cdn.cs164.net/2012/spring/lectures/1/slides1.pdf">Slides</a></li>
11.     <li><a href="http://cdn.cs164.net/2012/spring/lectures/1/lecture1.mp4">Video</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('includes/helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lectures')); ?>
8.
9. <ul>
10.     <li><a href="lecture0.php">Lecture 0</a></li>
11.     <li><a href="lecture1.php">Lecture 1</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

1. mvc/4/README
- 2.
3. David J. Malan
4. malan@harvard.edu
- 5.
6. Improves upon mvc/3 by organizing files into subdirectories.
- 7.
8. includes/
 9. helpers.php - helper functions
10. index.php - homepage for the course
11. lecture0.php - a lecture
12. lecture1.php - a lecture
13. lectures.php - a list of lectures
14. templates/
 15. footer.php - pages' footer
 16. header.php - pages' header

1. `</body>`
2. `</html>`

```
1. <!DOCTYPE html>
2.
3. <html>
4.   <head>
5.     <meta name="viewport" content="width=device-width">
6.     <title><?php echo htmlspecialchars($title) ?></title>
7.   </head>
8.   <body>
9.     <h1><?php echo htmlspecialchars($title) ?></h1>
```

```
1. <?php
2.
3. require_once('../includes/helpers.php');
4.
5. ?>
6.
7.
8. <?php render('header', array('title' => 'CSCI S-75')); ?>
9.
10. <ul>
11.     <li><a href="lectures.php">Lectures</a></li>
12.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/syllabus.pdf">Syllabus</a></li>
13. </ul>
14.
15. <?php render('footer'); ?>
```



```
1. <?php
2.
3. require_once('../includes/helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lecture 0')); ?>
8.
9. <ul>
10.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/slides0.pdf">Slides</a></li>
11.     <li><a href="http://cdn.cs75.net/2012/summer/lectures/0/lecture0.mp4">Video</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('../includes/helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lecture 1')); ?>
8.
9. <ul>
10.   <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/slides1.pdf">Slides</a></li>
11.   <li><a href="http://cdn.cs75.net/2012/summer/lectures/1/lecture1.mp4">Video</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

```
1. <?php
2.
3. require_once('../includes/helpers.php');
4.
5. ?>
6.
7. <?php render('header', array('title' => 'Lectures')); ?>
8.
9. <ul>
10.     <li><a href="lecture0.php">Lecture 0</a></li>
11.     <li><a href="lecture1.php">Lecture 1</a></li>
12. </ul>
13.
14. <?php render('footer'); ?>
```

```
1. <?php
2.
3. /**
4.  * Renders template.
5.  *
6.  * @param array $data
7.  */
8. function render($template, $data = array())
9. {
10.     $path = __DIR__ . '/../templates/' . $template . '.php';
11.     if (file_exists($path))
12.     {
13.         extract($data);
14.         require($path);
15.     }
16. }
17.
18. ?>
```

1. mvc/5/README
- 2.
3. David J. Malan
4. malan@harvard.edu
- 5.
6. Improves upon mvc/4 by isolating web-accessible content in its own subdirectory.
- 7.
8. html/
 9. index.php - homepage for the course
 10. lecture0.php - a lecture
 11. lecture1.php - a lecture
 12. lectures.php - a list of lectures
13. includes/
 14. helpers.php - helper functions
15. templates/
 16. footer.php - pages' footer
 17. header.php - pages' header

1. `</body>`
2. `</html>`

```
1. <!DOCTYPE html>
2.
3. <html>
4.   <head>
5.     <meta name="viewport" content="width=device-width">
6.     <title><?php echo htmlspecialchars($title) ?></title>
7.   </head>
8.   <body>
9.     <h1><?php echo htmlspecialchars($title) ?></h1>
```