```php
 1 ------- index.php
 2 <?php
 3 require_once "pdo.php";
 4 session_start();
 5 ?>
 6 <html>
 7 <head></head><body>
 8 <?php
 9 if ( isset($_SESSION['error']) ) {
10     echo '<p style="color:red">'.$_SESSION['error']."</p>\n";
11     unset($_SESSION['error']);
12 }
13 if ( isset($_SESSION['success']) ) {
14     echo '<p style="color:green">'.$_SESSION['success']."</p>\n";
15     unset($_SESSION['success']);
16 }
17 echo('<table border="1">'."\n");
18 $stmt = $pdo->query("SELECT name, email, password, user_id FROM users");
19 while ( $row = $stmt->fetch(PDO::FETCH_ASSOC) ) {
20     echo "<tr><td>";
21     echo(htmlentities($row['name']));
22     echo("</td><td>");
23     echo(htmlentities($row['email']));
24     echo("</td><td>");
25     echo(htmlentities($row['password']));
26     echo("</td><td>");
27     echo('<a href="edit.php?user_id='.$row['user_id'].'">Edit</a> / ');
28     echo('<a href="delete.php?user_id='.$row['user_id'].'">Delete</a>');
29     echo("</td></tr>\n");
30 }
31 ?>
32 </table>
33 <a href="add.php">Add New</a>
34
35
36
37
38
39
```

```php
40
41   ------ Add.php
42   <?php
43   require_once "pdo.php";
44   session_start();
45
46   if ( isset($_POST['name']) && isset($_POST['email'])
47        && isset($_POST['password'])) {
48
49       // Data validation
50       if ( strlen($_POST['name']) < 1 || strlen($_POST['password']) < 1) {
51           $_SESSION['error'] = 'Missing data';
52           header("Location: add.php");
53           return;
54       }
55
56       if ( strpos($_POST['email'],'@') === false ) {
57           $_SESSION['error'] = 'Bad data';
58           header("Location: add.php");
59           return;
60       }
61
62       $sql = "INSERT INTO users (name, email, password)
63                 VALUES (:name, :email, :password)";
64       $stmt = $pdo->prepare($sql);
65       $stmt->execute(array(
66           ':name' => $_POST['name'],
67           ':email' => $_POST['email'],
68           ':password' => $_POST['password']));
69       $_SESSION['success'] = 'Record Added';
70       header( 'Location: index.php' ) ;
71       return;
72   }
73
74   // Flash pattern
75   if ( isset($_SESSION['error']) ) {
76       echo '<p style="color:red">'.$_SESSION['error']."</p>\n";
77       unset($_SESSION['error']);
78   }
```

```php
79  ?>
80  <p>Add A New User</p>
81  <form method="post">
82  <p>Name:
83  <input type="text" name="name"></p>
84  <p>Email:
85  <input type="text" name="email"></p>
86  <p>Password:
87  <input type="password" name="password"></p>
88  <p><input type="submit" value="Add New"/>
89  <a href="index.php">Cancel</a></p>
90  </form>
91
92
93
94
95  ----- delete.php
96  <?php
97  require_once "pdo.php";
98  session_start();
99
100 if ( isset($_POST['delete']) && isset($_POST['user_id']) ) {
101     $sql = "DELETE FROM users WHERE user_id = :zip";
102     $stmt = $pdo->prepare($sql);
103     $stmt->execute(array(':zip' => $_POST['user_id']));
104     $_SESSION['success'] = 'Record deleted';
105     header( 'Location: index.php' ) ;
106     return;
107 }
108
109 $stmt = $pdo->prepare("SELECT name, user_id FROM users where user_id = :xyz");
110 $stmt->execute(array(":xyz" => $_GET['user_id']));
111 $row = $stmt->fetch(PDO::FETCH_ASSOC);
112 if ( $row === false ) {
113     $_SESSION['error'] = 'Bad value for user_id';
114     header( 'Location: index.php' ) ;
115     return;
116 }
117
```

```php
118 echo "<p>Confirm: Deleting ".htmlentities($row['name'])."</p>\n";
119
120 echo('<form method="post"><input type="hidden" ');
121 echo('name="user_id" value="'.htmlentities($row['user_id']).'">'."\n");
122 echo('<input type="submit" value="Delete" name="delete">');
123 echo('<a href="index.php">Cancel</a>');
124 echo("\n</form>\n");
125 ?>
126
127
128
129 --- edit.php
130 <?php
131 require_once "pdo.php";
132 session_start();
133
134 if ( isset($_POST['name']) && isset($_POST['email'])
135     && isset($_POST['password']) && isset($_POST['user_id']) ) {
136
137     // Data validation should go here (see add.php)
138     $sql = "UPDATE users SET name = :name,
139             email = :email, password = :password
140             WHERE user_id = :user_id";
141     $stmt = $pdo->prepare($sql);
142     $stmt->execute(array(
143         ':name' => $_POST['name'],
144         ':email' => $_POST['email'],
145         ':password' => $_POST['password'],
146         ':user_id' => $_POST['user_id']));
147     $_SESSION['success'] = 'Record updated';
148     header( 'Location: index.php' ) ;
149     return;
150 }
151
152 $stmt = $pdo->prepare("SELECT * FROM users where user_id = :xyz");
153 $stmt->execute(array(":xyz" => $_GET['user_id']));
154 $row = $stmt->fetch(PDO::FETCH_ASSOC);
155 if ( $row === false ) {
156     $_SESSION['error'] = 'Bad value for user_id';
```

```php
157        header( 'Location: index.php' ) ;
158        return;
159 }
160
161 $n = htmlentities($row['name']);
162 $e = htmlentities($row['email']);
163 $p = htmlentities($row['password']);
164 $user_id = htmlentities($row['user_id']);
165
166 // Show the use of the "here" document
167 echo <<< _END
168 <p>Edit User</p>
169 <form method="post">
170 <p>Name:
171 <input type="text" name="name" value="$n"></p>
172 <p>Email:
173 <input type="text" name="email" value="$e"></p>
174 <p>Password:
175 <input type="text" name="password" value="$p"></p>
176 <input type="hidden" name="user_id" value="$user_id">
177 <p><input type="submit" value="Update"/>
178 <a href="index.php">Cancel</a></p>
179 </form>
180 _END
181 ?>
182
```