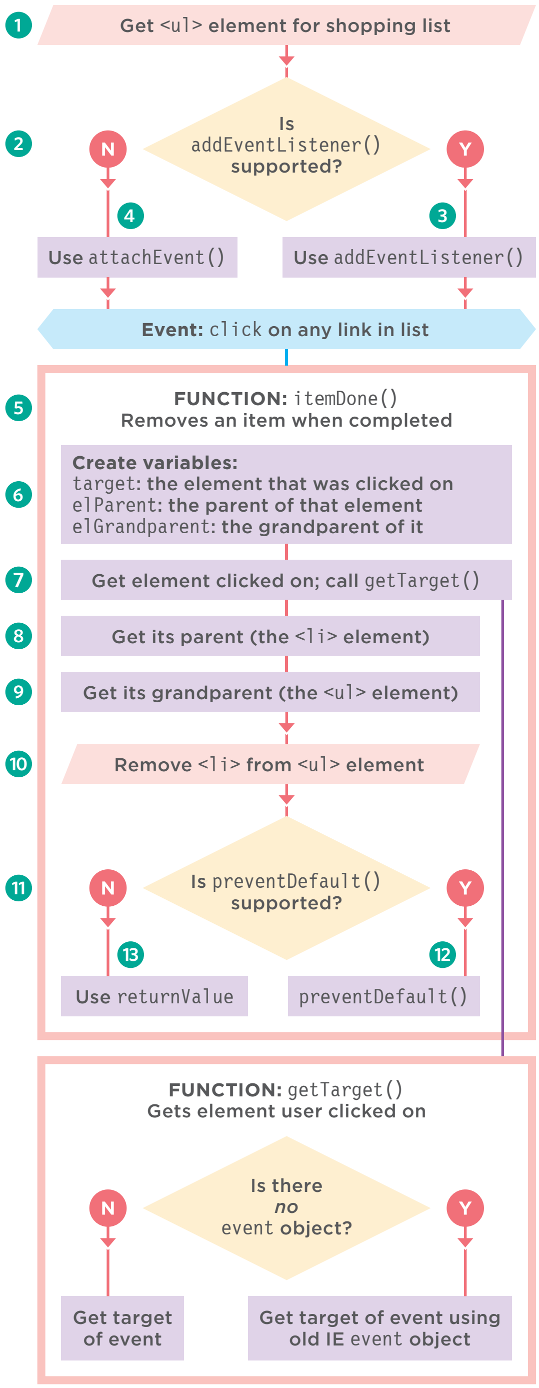
USING EVENT DELEGATION

This example will put together a lot of what you have learned in the chapter so far. Each list item contains a link. When the user clicks on that link (to indicate they have completed that task), the item will be removed from the list.

- There is a screen grab of the example on p266.
- On the right there is a flowchart that helps explain the order in which the code is processed.
- The right-hand page has the code for the example

1. The event listener will be added to the `<ul>` element, so this needs to be selected.
2. Check whether or not the browser supports `addEventListener()`.
3. If so, use it to call the `itemDone()` function when the user clicks anywhere on that list.
4. If not, use the `attachEvent()` method.
5. The `itemDone()` function will remove the item from the list. It requires three pieces of information.
6. Three variables are declared to hold the info.
7. `target` holds the element the user clicked on. To obtain this, the `getTarget()` function is called. This is created at the start of the script, and shown at the bottom of the flowchart.
8. `elParent` holds that element's parent (the `<li>`)
9. `elGrandparent` holds that element's grandparent
10. The `<li>` element is removed from the `<ul>` element.
11. Check if the browser supports `preventDefault()` to prevent the link taking the user to a new page.
12. If so, use it.
13. If not, use the older IE `returnValue` property.

In the HTML, the links would take you to `itemDone.php` if the browser did not support JavaScript. (The PHP file is not supplied with the code download because server-side languages are beyond the scope of this book.)



1
Get <ul> element for shopping list
2
Is addEventListener() supported?
N
Y
4
3
Use attachEvent()
Use addEventListener()
Event: click on any link in list
5
FUNCTION: itemDone()
Removes an item when completed
6
Create variables:
target: the element that was clicked on
elParent: the parent of that element
elGrandparent: the grandparent of it
7
Get element clicked on; call getTarget()
8
Get its parent (the <li> element)
9
Get its grandparent (the <ul> element)
10
Remove <li> from <ul> element
11
Is preventDefault() supported?
N
Y
13
12
Use returnValue
preventDefault()
FUNCTION: getTarget()
Gets element user clicked on
Is there no event object?
N
Y
Get target of event
Get target of event using old IE event object

HTML c06/event-delegation.html

```html
<ul id="shoppingList">
  <li class="complete"><a href="itemDone.php?id=1"><em>fresh</em> figs</a></li>
  <li class="complete"><a href="itemDone.php?id=2">pine nuts</a></li>
  <li class="complete"><a href="itemDone.php?id=3">honey</a></li>
  <li class="complete"><a href="itemDone.php?id=4">balsamic vinegar</a></li>
</ul>
```

JAVASCRIPT c06/js/event-delegation.js

```javascript
   function getTarget(e) {                          // Declare function
     if (!e) {                                      // If there is no event object
      e = window.event;                             // Use old IE event object
     }
     return e.target || e.srcElement;               // Get the target of event
   }

⑤  function itemDone(e) {                           // Declare function
     // Remove item from the list
⑥    var target, elParent, elGrandparent;           // Declare variables
⑦    target = getTarget(e);                         // Get the item clicked link
⑧    elParent = target.parentNode;                  // Get its list item
⑨    elGrandparent = target.parentNode.parentNode;  // Get its list
⑩    elGrandparent.removeChild(elParent);           // Remove list item from list

     // Prevent the link from taking you elsewhere
⑪    if (e.preventDefault) {                        // If preventDefault() works
⑫      e.preventDefault();                          // Use preventDefault()
     } else {                                       // Otherwise
⑬      e.returnValue = false;                       // Use old IE version
     }
   }

   // Set up event listeners to call itemDone() on click
①  var el = document.getElementById('shoppingList');// Get shopping list
②  if (el.addEventListener) {                       // If event listeners work
③    el.addEventListener('click', function(e) {     // Add listener on click
       itemDone(e);                                 // It calls itemDone()
     }, false);                                     // Use bubbling phase for flow
   } else {                                         // Otherwise
④    el.attachEvent('onclick', function(e){         // Use old IE model: onclick
       itemDone(e);                                 // Call itemDone()
     });
   }
```