Two common cart storage strategies

Storage in database

Pros
- When combined with cookies and/or login gives user a persistent cart between visits.
- Creates a record of cart items on server that may be useful in collaborative filtering analysis.

Cons
- Increased database load.
- Abandoned carts will (eventually) require garbage collection.
Two common cart storage strategies

Storage in Session variables

**Pros**

- Reduced storage need and database load.

**Cons**

- No persistence between site visits.
- No tracking of abandoned carts and related data.

Data structure for cart contents

**Two alternatives:**

Store each item data element individually.

**Database example:**

```sql
insert into carts (id, pid, qtty, color, price) values ...
```

**Session variable example:**

```php
$_SESSION['pid'][i] = $pid;
$_SESSION['qtty'][i] = $quantity;
```

etc.

Note: above code requires care in operations on items since they span multiple arrays.

[http://einstein.etsu.edu/~pittares/CSCI2910/examples/11-1.php](http://einstein.etsu.edu/~pittares/CSCI2910/examples/11-1.php)
Primitive Shopping Cart Operations

Add item/quantity to cart
Show cart contents
Delete single item from cart
Delete all items from cart
Change item quantity
Compute total price of items in cart

Other extensions based on context (change item size, color, etc.)

Add item/quantity to cart

What item attributes must be stored, and what should be retrieved upon display?

Assume DB table exists with Product ID Number (pid) and related data for every product we sell. Storing the pid would likely be sufficient to refer to product.

What about price?

Isolate elements that must be stored for functional and business reasons. Avoid unnecessary storage.
Show cart contents

Typically a loop and table or similar structure used to build output.
Cart controls associated with individual items (change quantity, delete) may need to be output with each item.

http://einstein.etsu.edu/~pittares/CSCI2910/examples/11-2.php

Delete single item from cart

Be sure to verify user authenticity before allowing deletion operation.

http://einstein.etsu.edu/~pittares/CSCI2910/examples/11-3.php
Delete all items from cart

Similar to single deletion. Change in display/location of control.

http://einstein.etsu.edu/~pittares/CSCI2910/examples/11-4.php

Compute Total Price

Keep running total as table is output

http://einstein.etsu.edu/~pittares/CSCI2910/examples/11-5.php