

1

```
products <- list(  
  list(name = "Apple", price = 0.5),  
  list(name = "Banana", price = 0.3),  
  list(name = "Milk", price = 2),  
  list(name = "Bread", price = 1.5),  
  list(name = "Eggs", price = 2.5)  
)
```

```
shopping_cart <- list()
```

```
cart_items_to_add <- list(  
  list(name = "Apple", quantity = 3),  
  list(name = "Milk", quantity = 2)  
)
```

```
for (item in cart_items_to_add) {  
  product_name <- item$name  
  quantity <- item$quantity
```

```
product <- NULL  
for (p in products) {  
  if (p$name == product_name) {
```

```
    product <- p
    break
  }
}
```

```
if (!is.null(product)) {
  cart_item <- list(name = product$name, price =
product$price, quantity = quantity)
  shopping_cart <- c(shopping_cart, list(cart_item))
  cat(sprintf("Added %d %s to cart.\n", quantity,
product$name))
} else {
  cat(sprintf("Product '%s' not found.\n", product_name))
}
}
```

```
subtotal <- 0
cat("\nReceipt:\n")
for (item in shopping_cart) {
  item_subtotal <- item$price * item$quantity
  cat(sprintf("%s (%d units) - Price: $%.2f - Subtotal:
$%.2f\n", item$name, item$quantity, item$price,
            item_subtotal))
  subtotal <- subtotal + item_subtotal
}
```

```
tax_rate <- 0.08
```

```
tax_amount <- subtotal * tax_rate
```

```
total_cost <- subtotal + tax_amount
```

```
cat("\nSubtotal: $%.2f\n", subtotal)
```

```
cat("Tax Amount (8%%): $%.2f\n", tax_amount)
```

```
cat("Total Cost: $%.2f\n", total_cost)
```