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)