



You are a developer in our e-commerce team. We are tasked to build the Shopping Trolley feature. The requirements given as a user stories as below.

Your task is to design and develop this feature. You have the freedom to do it anyway you want and demonstrate, show us your strengths. Few suggestions are

- a. Build one or more libraries or services
- b. Build one or more APIs / services
- c. Choose an appropriate hosting environment - this can be just running in your favorite IDE, containers in your local machines or hosted in your favourite cloud environment
- d. Optionally build a single page app or a web front end
- e. Optionally deploy your application with build pipelines
- f. Optionally build dashboards to monitor your services and application

Like true agile teams, we prioritise and build our features in small iterations. The user stories build up to provide richer experience with each adding some enhancements..

We care a lot about clean design, clean code, good tests and continuous delivery practices. Demonstrate your strengths in these aspects.

Trolley Use Cases:

User Story 1:

As a customer I want to add / remove items to the trolley so that I can purchase the drinks I want

Acceptance Criteria:

1. Customers can add the same item more than once. For MVP, there is no upper limit on the number of items or quantity they add
2. When customer adds an item to the trolley, they can see the count of items incremented
 - a. Given customer has no item in the trolley
 - b. When they add the first item
 - c. Then the trolley count shows 1
3. When Customer removes item from the trolley, the count of items is decremented
 - a. Given customer has 1 item in the trolley
 - b. When they remove that item from the trolley
 - c. Then the trolley count shows

User Story 2:

As a customer when I view trolley, I want to see all the items I have added and the price of each item in the trolley so that I can see what I am paying for each item

1. For each item show the product name and sale price
Given "Jacob's Creek Classic Sauvignon Blanc" has a sale price of \$7.95 is in the trolley



When I view the trolley

Then I want to see a sale price of Jacob's Creek Classic Sauvignon Blanc and \$7.95

User Story 3:

As a customer when I view trolley, I want to see the total price of my trolley so that I know what I am paying

1. Add up the item price and display total price

Given I have items "Jacob's Creek Classic Sauvignon Blanc" with a sale price of \$7.95, "Tread Softly Pinot Noir" with sale price of \$13.60 and "Coopers Original Pale Ale Bottle" with sale price of \$4.69 in the trolley

When I view the trolley

Then I want to see a total price of \$26.24

Promotion Use Cases:

The business is facing competitive challenges and wants to run promotions to attract customers. Promotions can be a product promotion (at item level, for example, \$1 off the price, 5% off the price) or at a trolley promotion (for example, multi-buy-promotions such as buy one get one free, buy one get second one for half price, spend and save promotions such as spend \$50 and get \$10 off). We need to be able to show the promotion price (\$ discount and \$ saved) for each item in the trolley and the total discount and total savings on the trolley. The user stories are as follows

User Story 4:

As a customer when I view trolley, I want to see the discounted price if there are any discounts for each item in the trolley so that I know what I am paying for each item after the discount

1. For each item, show discounted price along with sale price

Given trolley has "Marlborough Sounds Pinot Noir bottle" with sale price of \$19.99 and a product promotion is running that gives \$2.00 off and "Pepperjack Barossa Shiraz" has a sale price of \$25.00 and a product promotion gives 10% off

When I view the trolley

Then I want to see against the first item sale price of \$19.99 and a discounted price of \$17.99

And against item 2, a sale price of \$25.00 and a discounted price of \$22.50

User Story 5:

As a customer when I view trolley, I want to see the total price of my trolley and the discounted price after all discount have been applied so that I know what I am paying and what benefit I am getting

1. Apply all product level discounts, then apply trolley level discounts, subtract this from the total sale price to get the discounted price



Given trolley has one “Marlborough Sounds Pinot Noir bottle” with sale price of \$19.99 and a product promotion is running that gives \$2.00 off, two “Baily & Baily Queen Bee Sticky” which has a sale price of \$12.00 and a promotion of buy one and get 20% off the second

When I view the trolley

Then I want to see a total sale price of \$43.99 and discounted price of \$39.59

Test Data

Product List:

Product	Sale Price
Victoria Bitter	\$21.49
Crown Lager	\$22.99
Coopers	\$20.49
Tooheys Extra Dry	\$19.99

Promotions:

Name	Definition	Type
Current month special on VB	\$2.00 off	Product
BOGOF on Coopers	Buy one and get one free	Trolley
Spend and save	Spend \$50 and \$5 off the total	Trolley