



Engineering code challenge, backend

Welcome to our backend challenge. We're excited that you've decided to invest your time in completing this exercise and we're looking forward to reviewing your code. There's no time limit to complete this assignment although we recommend spending between 3 to 6 hours.

Please use **NodeJS** as runtime environment and **Typescript / Javascript** as the programming language for this coding exercise and provide either a Dockerfile or clear build instructions to run your application. You can also use any Javascript frameworks or libraries as long as they don't solve the core problem for you.

We're looking for code that is readable, extensible, with functioning unit and/or integration tests, proper use of logging, and error handling. Documentation is also important on your thought process, usage instructions, and how you would invest further time in making your solution better.

Shopping Cart

Have you shopped online? Let's imagine that you need to build the checkout business logic that will support different promotions with the given inventory.

Build a checkout system as a standalone **NodeJS API** with these items:

SKU	Name	Price	Inventory Qty
120P90	Google Home	\$49.99	10
43N23P	MacBook Pro	\$5,399.99	5
A304SD	Alexa Speaker	\$109.50	10
234234	Raspberry Pi B	\$30.00	2

The system should have the following promotions:

- Each sale of a MacBook Pro comes with a free Raspberry Pi B
- Buy 3 Google Homes for the price of 2
- Buying more than 3 Alexa Speakers will have a 10% discount on all Alexa speakers

Example Scenarios:

Scanned Items: MacBook Pro, Raspberry Pi B **Total:** \$5,399.99

Scanned Items: Google Home, Google Home, Google Home **Total:** \$99.98

Scanned Items: Alexa Speaker, Alexa Speaker, Alexa Speaker **Total:** \$295.65

Please provide appropriate documentation on how to interact with your API (i.e. Readme file, curl commands, or POSTman scripts, etc.).

Thank you for your time and we look forward to reviewing your solution.