Group no: 5

Vulnerability Type:
Security

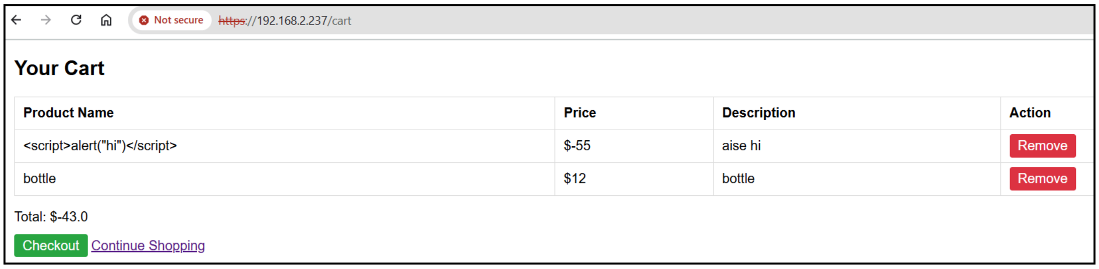
Brief Discription: There is no check on creating and purchasing items with negative prices in marketplace. I heve completely ordered an item with negative payment amount without any issue. This allows atteackers to exploit the payment logic and place successful orders with negative total amounts leading to possibly severe financial and system integrity implications.

Steps to Reproduce:

1) Go to https://192.168.2.237/
2) Go to the market place. I.e. https://192.168.2.237/view_products
3) Select any item with -ve payment and proceed to buy it. If there is no such item then create one with a account and but it with other one.
4) Then see that there is no check or error shown even though amount is -ve and we can buy items with negative amount.

Proof of Concept:

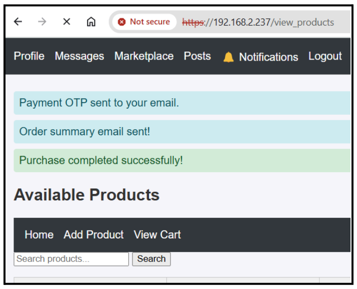
I have added 2 items in my cart with negative price deducting from the actual amount. I have created a iten with negative price as well.



Your Cart

Product Name	Price	Description	Action
<script>alert("hi")</script>	$-55	aise hi	Remove
bottle	$12	bottle	Remove

Total: $-43.0

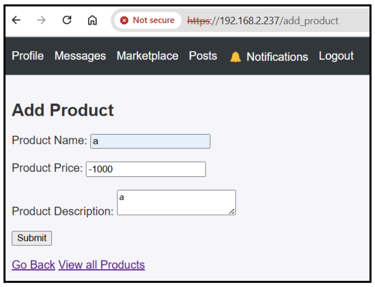


Payment OTP sent to your email.

Order summary email sent!

Purchase completed successfully!

Available Products

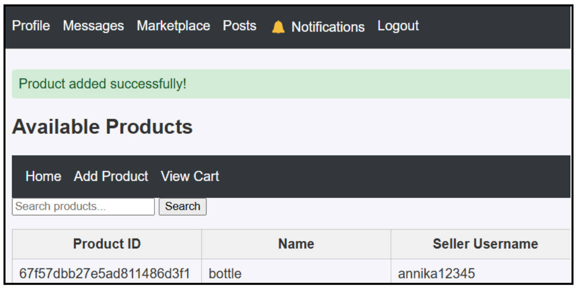


Add Product

Product Name: a

Product Price: -1000

Product Description: a



Product added successfully!

Available Products

Product ID	Name	Seller Username
67f57dbb27e5ad811486d3f1	bottle	annika12345

Impact:

As there is no check on negative amount, attackers could trick the system into paying them money (as negative payment implies money returned) and bypass the actual payment by exploiting negative amounts. In the example ss as well we can reduce the cart value by adding item with negative amount so attackers could potentially receive money or avoid the actual payments. So there is order confirmed despite the invalid payment flow and its accepting logically invalid transactions