

JavaScript Exercises: Product Data Modeling

1. Find a Product by ID

Write a program that takes a product ID and prints the product object.

Output:

```
{  
  "id": 102,  
  "title": "Mobile",  
  "varations": [...],  
  "reviews": [...]  
}
```

2. List All Product Titles

Write a program that prints all product titles.

Output:

Sony LED 40 inch
Mobile
Bike

3. Find Available Colors of a Product

Given a product ID, print all available colors.

Output:

black
red
silver

4. Get Total Quantity of a Product

Write a program that calculates and prints the total quantity of all variations of a given product.

Output:

Total Quantity: 14

5. Filter Products with Low Stock

Write a program that prints products where at least one variation has a quantity of less than 2

Output:

Sony LED 40 inch
Mobile
Bike

6. Find the Highest Rated Product

Write a program that prints the product with the highest average rating.

Output:

Highest Rated Product: Mobile

7. Filter Active Reviews for a Product

Modify the given logic to display only approved (status: true) reviews.

Output:

```
{"user": "Ahmad", "rating": 4.0, ...}  
{"user": "Ali", "rating": 5.0, ...}
```

8. Find the Most Expensive Variation of Each Product

Write a program that prints the most expensive variation for each product.

Output:

Product 101 = Sony LED 40 inch - Silver (55000)
Product 102 = Mobile - Silver (55000)
Product 103 = Bike - Black (55000)

9. Calculate Total Stock Value

Calculate and print the total value of all products in stock (sum of price * quantity for all variations).

Output:

Total Stock Value: 1020000