

## PRODUCTS (DIANA)

### Method 1: Using reduce and filter

```
const products = [
  { name: 'Product 1', price: 30, category: 'Category 1' },
  { name: 'Product 2', price: 60, category: 'Category 1' },
  { name: 'Product 3', price: 20, category: 'Category 2' },
  { name: 'Product 4', price: 80, category: 'Category 2' },
  { name: 'Product 5', price: 40, category: 'Category 3' },
  { name: 'Product 6', price: 70, category: 'Category 3' }
];

const averagePrices = products.reduce((acc, product) => {
  if (!acc[product.category]) {
    acc[product.category] = { total: 0, count: 0 };
  }
  acc[product.category].total += product.price;
  acc[product.category].count++;
  return acc;
}, {});

const categoriesAbove50 = Object.entries(averagePrices)
  .map(([category, { total, count }]) => ({ category, averagePrice: total / count }))
  .filter(({ averagePrice }) => averagePrice > 50)
  .map(({ category }) => category);

console.log(categoriesAbove50);
```

### Method 2: Using reduce and forEach

```
const products = [
  { name: 'Product 1', price: 30, category: 'Category 1' },
  { name: 'Product 2', price: 60, category: 'Category 1' },
  { name: 'Product 3', price: 20, category: 'Category 2' },
  { name: 'Product 4', price: 80, category: 'Category 2' },
  { name: 'Product 5', price: 40, category: 'Category 3' },
  { name: 'Product 6', price: 70, category: 'Category 3' }
];

const averagePrices = products.reduce((acc, product) => {
  if (!acc[product.category]) {
    acc[product.category] = { total: 0, count: 0 };
  }
  acc[product.category].total += product.price;
  acc[product.category].count++;
  return acc;
}, {});
```

```
    acc[product.category].total += product.price;  
    acc[product.category].count++;  
    return acc;  
  }, {});
```

```
const categoriesAbove50 = [];  
Object.entries(averagePrices).forEach(([category, { total, count }]) => {  
  const averagePrice = total / count;  
  if (averagePrice > 50) {  
    categoriesAbove50.push(category);  
  }  
});
```

```
console.log(categoriesAbove50);
```