**Analysis Summary Report for Online National Clothing Chain**

The analysis was conducted using the data given by an online national clothes retailer, and the findings were as follows:

There is a significant correlation between sales and income, with an **R2 of 0.78**, as seen in the scatterplot and card. It appears to demonstrate that as income rises, more sales are anticipated.

The formula used for calculating each customer's predicted income using linear regression is **(Predicted Income = ROUND ((-722.14 - [Last 6 Months Purchases]) / -0.01,2))**.

The relationship between customer rating and product return rates, on the other hand, is inverse. In other words, the likelihood of a return increases when the product has a low rating. However, this correlation is not as strong as the previous one, as **R2 is equal to 0.69**.

It is evident from the heatmap and table that show how income is distributed among the several states that District Columbia has the highest average income, at **$115,354.20**. The card also identifies **Darlene** as the client with the greatest predicted income.

The highest percentage of customers had incomes of **$80K** or more, according to the histogram that depicts the income distribution buckets. The next category is between **$40** and **$60K**, followed by **$20 to 40K, $60 to 80K**, and **$0 to 20K**.

The "Leather bag" is clearly the most suggested product to be marketed, which makes sense given that the majority of consumers have the highest incomes, according to the recommended items chart. This product may be promoted to **414** potential clients. The "Cotton sweater" could then be promoted to **306** consumers, while the "Spring T-shirt" could then be promoted to **280** people.

The last graph shows the state's overall population as well as a breakdown by industry. With a total population of **19078101**, California looks to have the greatest population among all states. Florida came in second with a total of **9958518**, followed by Texas with a total of **13830576**. The professional sectors, namely "educational, health care, and social services" and "Professional, scientific, and technical services," are the main industries in those states. Therefore, it is advised to concentrate on the formal clothing items for such states, such as long dresses and leather goods (sneakers, bags, and wallets).