METHODOLOGY:

1)It is implemented using the isolation forest which is a ensemble model.widely used for the tree based models.

2)The main aim of this model is to isolate a datapoint by creating the tree model for every feature.

Parameters:

1)Estimation = 0.1(10%) which indicates how much amount of datapoints are outliers.

n_estimators = 100 (default)

BUSINESS INSIGHTS AND FINDINGS:

- **Total Outliers Identified:** 250 (10% of the dataset, as specified by the contamination parameter).
- **Summary of Outliers:**
  - **Age:** The outliers have a wide age range.
  - **Annual Income:** The income among outliers varies greatly, indicating that income alone may not be a direct indicator of abnormal behaviour.
  - **Purchase Amount:** Outliers show significantly high variability in purchase amounts, which could indicate unusual spending patterns.
  - **Purchase Frequency:** The outliers' purchase frequencies range from very low to high.
  - **Product Category & Gender:** The outliers are spread across different product categories and genders.
  - **Customer Rating & Days Since Last Purchase:** There is considerable variability in customer ratings and days since the last purchase, suggesting diverse customer behaviours among the outliers.