Problem Definition Steps

The chosen group project for our **Marketing Analytics** course involves **proposing a solution** for a **pre-defined** problem faced by business owners or customers.

The process can be broken down into several key steps:

1. **Identify the Problem Area:** Retention rate analysis for online shops.
2. **Conduct Preliminary Research:** Online shops, which allow people to create accounts and fill in the data about them, will give us the necessary information to conduct our research and do proper analysis on that data. There are always customers that are not satisfied with products, delivery time, etc…
3. **Define a Specific Problem:** Finding the customers with highest churn rate and most loyal customers. For the high churned customers we can find out the reasons for churning and solutions to attract them. For advertisements, we can target the right people who have a high possibility of becoming loyal customers.
4. **Propose a Solution with Methodology:** Outline a solution that utilizes data analytics techniques. This will include:
   a. **Data Collection:** The data should include customer transaction data and also the demographic data imputed by the users. The data should be collected by the shop owner who will be our user. We can find datasets from kaggle, google, etc. We can also synthetically generate data for testing purposes.
   b. **Analytical Techniques:** We can use RFM analysis or clustering techniques. Most probably we will be using clustering algorithms to achieve a more robust experience.
   c. **Implementation Plan:** For example, we can identify that most people who visit and shop at skate-shops are between 13 to 18 years old; after which we can start an advertising campaign specifically targeting people in that age group, increasing our sales. Also, by identifying churning customers, shop owners can provide them with 10% discount codes to attract and decrease churn rate.
5. **Expected Outcomes:** Marketing campaigns will be more efficient, increasing loyalty rates.
6. **Evaluation Metrics:** By boosting customer acquisition and decreasing the churn rate we will increase sales as much as possible.

Remember, the key to a successful project is not just identifying a problem and solution but also demonstrating how data-driven insights can lead to tangible improvements in marketing strategies and outcomes.