Requirement life cycle for customer segmentation model for a telecommunications company:

1) Requirement Analysis:

A) Analyze customer data:

Examine customer data to identify patterns, trends, and correlations.

B) Identify customer segments: Determine potential customer segments based on analysis, such as:

- Demographic segments consists of age, location, income
- behavioural segment like usage patterns, payment history
- Firmographic segment consists business type, size, industry.

C) Develop segment personas:

Create detailed personas for each identified segment, including characteristics, needs, and preferences.

2. Data Collection & Preparation:

A) Data Sourcing:

Gather data from various sources (e.g., CRM, billing systems, network data, surveys).

B) Data Cleaning & Transformation:

Address data quality issues

For Ex. Missing values, inconsistencies, duplicates.

C) Feature Engineering:

Create new variables or transform existing ones to improve model performance

For Ex. Calculate churn risk, customer lifetime value.

3. Model Development & Selection:

A) Algorithm Selection: Choose appropriate segmentation algorithms (e.g., clustering, classification, rule-based) based on the data and business goals.

B)Model Training: Train the chosen model using the prepared data.

C) Parameter Tuning: Optimize the model's parameters for best performance.

4. Deployment & Implementation:

A) Integration with Business Systems: Integrate the model with CRM, marketing automation, and other relevant systems.

B) Communication & Training: Train stakeholders on how to use the segmentation model and its insights.

5. Requirements Maintenance:

A) Monitor segmentation performance*: Continuously evaluate the effectiveness of the customer segmentation model.

B) Update segmentation criteria: Refine segmentation criteria as customer needs and market conditions evolve.

C)Maintain data quality: Ensure that data used for segmentation remains accurate, complete, and up-to-date.

6. Feedback Loop:

Incorporate feedback from stakeholders and end-users to improve the model over time.