

Micro Experience: Optimizing Last-Mile Delivery Planning for Cost Reduction

1. File: oda_trip_data.csv

The file contains data on trips made by partners from mid-April to end of May. Each row contains data on one consignment.

Columns Description:

1. **cnote**: Unique identification number of the consignment
2. **dispatch_time**: Time when the trip containing the consignment was dispatched
3. **client_name**: Name of the client who placed the order for delivery
4. **weight**: Weight of the consignment in kg
5. **origin_cluster**: Main warehouse in the state of pickup location
6. **to_pincode**: Pin code of the location where the consignment has to be delivered
7. **trip_id**: ID of the trip dispatched containing the consignment
8. **bp_id**: Business partner (BP) responsible for last-mile delivery
9. **serviceability**: Code containing the ODA category of the consignment. The middle number is the ODA category. E.g., In "ODA_4_1" the ODA category is 4.

2. File: commercials.csv

The file contains data on fixed costs and variable cost rate agreed with each delivery partner.

Columns Description:

1. **bp_id**: Unique ID of the last-mile delivery partner (business partner)
2. **commercial_type**: Contains type of commercial along with ODA category. E.g., Value "oda 1_vc" means "variable cost rate charged by the partner for delivering ODA 1 consignment." Similarly, value "oda 2_trip" means "fixed cost charged by the partner on making a trip in which the maximum ODA category among all consignment is 2."
3. **Rate**: Fixed cost in ₹ or variable cost in ₹/kg charged by the partner

3. File: partners.csv

The file contains mapping of BP IDs and their names.

Columns Description:

1. **bp_id**: Unique ID of the last-mile delivery partner
2. **bp_name**: Name of the partner

4. File: cluster_coverage.csv

The file contains pin codes and the cluster covering those pin codes. It also contains branches working under that cluster, which are responsible for making last-mile deliveries at these pin codes.

Columns Description:

1. **to_pincode:** Pin code of a location
2. **branch_name:** Name of the branch responsible for last-mile delivery
3. **branch_code:** Unique ID of the branch
4. **cluster_code:** Unique ID of the cluster under which the branch operates

5. File: regions.csv

The file contains mapping of clusters to regions and state under which they reside.

Columns Description:

5. **cluster:** Unique ID of the cluster
6. **cluster_name:** Name of the cluster
7. **region:** Region to which the cluster is mapped to
8. **state:** Name of the state which the cluster is in