Project

1. Properties

- Project
  - » Name: Shopsmart- Customer reward program project
  - » Description: ShopSmart operates in the retail sector and wants to introduce a customer rewards program. This program will collect customer purchasing data to offer personalized rewards, discounts, and recommendations.

Input specification

1. Input data

- Data
  - » Records: 500
  - » Attributes: 16

2. Attributes and transformations

- Insensitive attributes
  - » Marketing Email Clicked: String
  - » Customer Service Inquiry: String
  - » Quantity: Integer
  - » Reward Chosen: String
  - » Items Purchased: String
  - » Marketing Email Opened: String
  - » Payment Method: String
- Sensitive attributes
  - » Feedback on Reward: String
  - » Points Earned: Integer
  - » Points Redeemed: Integer
- Identifying attributes
  - » Name: String
- Quasi-identifying attributes
  - » Total Cost: Decimal
  - » Gender: String
  - » Transaction Date: Date(yyyy-MM-dd)
  - » Age: Integer
  - » Location: String
- Response variables
  - » None
- Generalization hierarchy
  - » Attribute: Gender
  - » Height: 3
  - » Minimum level: 0
  - » Maximum level: 2
- Generalization hierarchy
  - » Attribute: Transaction Date
  - » Height: 5
  - » Minimum level: 0

» Maximum level: 4
- Generalization hierarchy
  - » Attribute: Age
  - » Height: 4
  - » Minimum level: 0
  - » Maximum level: 3
- Generalization hierarchy
  - » Attribute: Location
  - » Height: 3
  - » Minimum level: 0
  - » Maximum level: 2
- Microaggregation function
  - » Attribute: Total Cost
  - » Type: Arithmetric mean
  - » Clustering: No

3. Configuration
- Weights
  - » Total Cost: 0.5
  - » Gender: 0.5
  - » Transaction Date: 0.5
  - » Age: 0.5
  - » Location: 0.5
- Settings
  - » Assume monotonicity: No
  - » Suppression limit: 0.045
- Risk thresholds
  - » Prosecutor risk: 0.2
  - » Journalist risk: 0.2
  - » Marketer risk: 0.2

Output properties

1. Output data
- Data
  - » Records: 500
  - » Attributes: 16
- Checksum
  - » SHA-256: 5d5bd946ce73c16be1f0651e7caa633d19bd68b78004b63c836ec66b3d417d9e

2. Solutions
- Search space
  - » Size: 180
  - » Materialized: 19

3. Transformation
- Transformation
  - » Anonymity: Yes
  - » Minimum information loss: 0.39531688428219636
  - » Maximum information loss: 0.39531688428219636

- Generalization scheme
  - » Age: 2/3
  - » Location: 2/2
  - » Gender: 0/2
  - » Transaction Date: 4/4

4. Data quality model

- Loss
  - » Aggregate function: Geometric mean
  - » Monotonic: No
  - » Generalization factor: 1.0
  - » Suppression factor: 1.0

5. Privacy models

- Distinct l-diversity
  - » Attribute: Points Redeemed
  - » Threshold (l): 2
- Distinct l-diversity
  - » Attribute: Feedback on Reward
  - » Threshold (l): 2
- k-Anonymity
  - » Threshold (k): 5
- Distinct l-diversity
  - » Attribute: Points Earned
  - » Threshold (l): 2