**Data Warehouse Model for Insurance XYZ**

**1. Raw Data Vault (RDV)**

**Hubs:**

* **Hub\_Clients** (Client\_ID, Client\_Name, Address, Phone, Birth\_Date, Created\_At)
* **Hub\_Policies** (Policy\_ID, Client\_ID, Policy\_Type, Start\_Date, End\_Date, Created\_At)
* **Hub\_Claims** (Claim\_ID, Policy\_ID, Claim\_Date, Cause, Created\_At)
* **Hub\_External\_Data** (External\_Data\_ID, Data\_Type, Data\_Source, Created\_At)

**Links:**

* **Link\_Client\_Policy** (Client\_ID, Policy\_ID, Created\_At)
* **Link\_Policy\_Claim** (Policy\_ID, Claim\_ID, Created\_At)

**Satellites:**

* **Sat\_Clients** (Client\_ID, Risk\_Score, Income\_Level, Last\_Updated\_At)
* **Sat\_Policies** (Policy\_ID, Premium\_Amount, Coverage\_Details, Last\_Updated\_At)
* **Sat\_Claims** (Claim\_ID, Claim\_Amount, Claim\_Status, Last\_Updated\_At)
* **Sat\_External\_Data** (External\_Data\_ID, Economic\_Index, Weather\_Conditions, Last\_Updated\_At)

**2. Business Data Vault (BDV)**

**Business Hubs:**

* **Hub\_Risk\_Analysis** (Client\_ID, Risk\_Category, Created\_At)
* **Hub\_Fraud\_Detection** (Claim\_ID, Fraud\_Score, Created\_At)

**Business Links:**

* **Link\_Client\_Risk** (Client\_ID, Risk\_Category, Updated\_At)
* **Link\_Claim\_Fraud** (Claim\_ID, Fraud\_Score, Updated\_At)

**Business Satellites:**

* **Sat\_Risk\_Analysis** (Client\_ID, Risk\_Factors, Adjusted\_Score, Last\_Updated\_At)
* **Sat\_Fraud\_Detection** (Claim\_ID, Fraud\_Patterns, Investigated\_By, Last\_Updated\_At)

**3. Information Mart (Dimensional Model)**

**Fact Tables:**

* **Fact\_Claims** (Claim\_ID, Policy\_ID, Client\_ID, Claim\_Date, Claim\_Amount, Claim\_Status, Fraud\_Score, Risk\_Score)
* **Fact\_Policies** (Policy\_ID, Client\_ID, Premium\_Amount, Start\_Date, End\_Date, Policy\_Type)
* **Fact\_Customer\_Risk** (Client\_ID, Risk\_Score, Number\_of\_Claims, Premium\_Amount, Economic\_Index, Weather\_Conditions)

**Dimension Tables:**

* **Dim\_Clients** (Client\_ID, Client\_Name, Address, Phone, Birth\_Date, Risk\_Category)
* **Dim\_Policies** (Policy\_ID, Policy\_Type, Premium\_Amount, Coverage\_Details)
* **Dim\_Claims** (Claim\_ID, Claim\_Date, Claim\_Amount, Cause, Claim\_Status, Fraud\_Score)
* **Dim\_External\_Factors** (External\_Data\_ID, Economic\_Index, Weather\_Conditions)

**Conclusion:**

This model provides a robust data integration structure for Insurance XYZ, supporting analytical needs such as risk assessment, fraud detection, and customer segmentation. By leveraging Data Vault methodology, it ensures scalability and traceability while enabling efficient reporting through the Information Mart.