**Power BI Lab 6**

**Data Source:** Airline Delay Ca <?xml version="1.0" encoding="UTF-8"?>

<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified" attributeFormDefault="unqualified">

<!-- Simple Types -->

<xs:simpleType name="zipType">

<xs:restriction base="xs:string">

<xs:pattern value="\d{5}"/>

</xs:restriction>

</xs:simpleType>

<xs:simpleType name="quantityType">

<xs:restriction base="xs:int">

<xs:minInclusive value="1"/>

</xs:restriction>

</xs:simpleType>

<xs:simpleType name="partNumType">

<xs:restriction base="xs:string">

<xs:pattern value="[0-9]{3}-[A-Z]{2}"/>

</xs:restriction>

</xs:simpleType>

<!-- Attribute Groups -->

<xs:attributeGroup name="addressAttributes">

<xs:attribute name="country" type="xs:string" use="required"/>++

</xs:attributeGroup>

<xs:attributeGroup name="itemAttributes">

<xs:attribute name="partNum" type="partNumType" use="required"/>

</xs:attributeGroup>

<xs:attributeGroup name="orderAttributes">

<xs:attribute name="orderDate" type="xs:date" use="required"/>

</xs:attributeGroup>

<!-- Groups -->

<xs:group name="addressGroup">

<xs:sequence>

<xs:element name="name" type="xs:string"/>

<xs:element name="street" type="xs:string"/>

<xs:element name="city" type="xs:string"/>

<xs:element name="state" type="xs:string"/>

<xs:element name="zip" type="zipType"/>

</xs:sequence>

</xs:group>

<xs:group name="itemGroup">

<xs:sequence>

<xs:element name="productName" type="xs:string"/>

<xs:element name="quantity" type="quantityType"/>

<xs:element name="USPrice" type="xs:decimal"/>

<xs:element name="comment" type="xs:string" minOccurs="0"/>

<xs:element name="shipDate" type="xs:date" minOccurs="0"/>

</xs:sequence>

</xs:group>

<xs:group name="purchaseOrderGroup">

<xs:sequence>

<xs:element name="shipTo">

<xs:complexType>

<xs:group ref="addressGroup"/>

<xs:attributeGroup ref="addressAttributes"/>

</xs:complexType>

</xs:element>

<xs:element name="billTo">

<xs:complexType>

<xs:group ref="addressGroup"/>

<xs:attributeGroup ref="addressAttributes"/>

</xs:complexType>

</xs:element>

<xs:element name="comment" type="xs:string" minOccurs="0"/>

<xs:element name="items">

<xs:complexType>

<xs:sequence>

<xs:element name="item" maxOccurs="unbounded">

<xs:complexType>

<xs:group ref="itemGroup"/>

<xs:attributeGroup ref="itemAttributes"/>

</xs:complexType>

</xs:element>

</xs:sequence>

</xs:complexType>

</xs:element>

</xs:sequence>

</xs:group>

<!-- Complex Types -->

<xs:complexType name="addressType">

<xs:group ref="addressGroup"/>

<xs:attributeGroup ref="addressAttributes"/>

</xs:complexType>

<xs:complexType name="itemType">

<xs:group ref="itemGroup"/>

<xs:attributeGroup ref="itemAttributes"/>

</xs:complexType>

<xs:complexType name="purchaseOrderType">

<xs:group ref="purchaseOrderGroup"/>

<xs:attributeGroup ref="orderAttributes"/>

</xs:complexType>

<!-- Root Element -->

<xs:element name="purchaseOrder" type="purchaseOrderType"/>

</xs:schema>

uses Dataset

**Project Overview:**  
Each team (3 members) will build a comprehensive Power BI dashboard to analyze the full dataset and find the best insights.

**Tasks:**

1. Load and clean the dataset.
2. Create necessary measures and KPIs.
3. Design a full dashboard covering all key insights.
4. Use visualizations to highlight important trends.
5. Implement interactive features like drill-through and bookmarks.
6. Ensure a creative and professional design.
7. Publish the report to Power BI Report Server.

**Deliverables:**

* Power BI .pbix file
* Summary report with key findings
* Presentation slides (optional)

**Evaluation Criteria:**

* Data Analysis & Insights: 50%
* Dashboard Design: 30%
* Interactivity & Usability: 20%