**1. Title Slide**

* **Title:** *Aviation Risk Analysis: Identifying Low-Risk Aircraft for Expansion*
* Subtitle: *Phase 1 Data Science Project*
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**2. Overview (Project Goal)**

* **Goal:** Help the company identify **which aircraft are the lowest risk** for purchase and operation.
* **Why:** The company is expanding into aviation but lacks knowledge of aircraft safety risks.
* **Deliverables:** Cleaned dataset, analysis, risk metrics, and clear recommendations.

Visual: Simple infographic (company → aviation industry → risk analysis → decision).

**3. Business Understanding (Problem Statement)**

* **Business Problem:** The company wants to enter the aircraft industry but needs to minimize risks.
* **Key Questions:**
  1. Which aircraft types have the lowest risk?
  2. Which operators and regions show higher safety concerns?
  3. What factors influence risk the most?

Visual: An airplane icon with arrows to “Operators,” “Aircraft Types,” “Regions.”

**4. Data Understanding**

* **Dataset:** Aviation incident/accident records.
* **Rows:** (show total rows from your dataset).
* **Columns:** Aircraft type, operator, fatalities, date, location, etc.
* **Cleaning Steps:**
  + Replaced -1 with missing values (NaN).
  + Standardized text fields (operators, aircraft types).
  + Created missing-value indicators for analysis.

Visual: Snapshot of dataset (table image with key columns highlighted).

**5. Data Analysis – Key Insights (Visualization 1)**

* **Finding 1:** Most incidents involve only **0 fatalities** (low severity).
* **Visualization 1:** Histogram of fatalities per incident.
* **Business takeaway:** Many incidents are minor, but a small % are severe — choosing aircraft with fewer severe incidents is critical.

**6. Data Analysis – Key Insights (Visualization 2)**

* **Finding 2:** Certain **aircraft types** have significantly lower fatality rates per incident.
* **Visualization 2:** Bar chart showing “Fatalities per 100 Incidents” by aircraft type (top 10).
* **Business takeaway:** These low-risk aircraft types should be prioritized for acquisition.

**7. Data Analysis – Key Insights (Visualization 3)**

* **Finding 3:** **Incidents vary by region/operator.** Some regions/operators show consistently higher risks.
* **Visualization 3:** World map (incident locations, sized by fatalities).
* **Business takeaway:** Consider avoiding operations in high-risk regions until further safety controls are established.

**8. Recommendations**

✅ Prioritize **aircraft types A, B, C** with lowest fatalities per incident.  
✅ Partner with **low-risk operators** who show consistent safety records.  
✅ Delay expansion into **high-risk regions** until risk mitigation strategies are developed.

**9. Next Steps**

* Collect more recent and detailed operational data.
* Build predictive models to estimate future risks.
* Develop partnerships with maintenance & safety organizations.
* Create a monitoring dashboard (monthly safety KPIs).

**10. Thank You (Q&A)**

* Thank audience for attention.
* Prompt for **Questions**.
* Include your **contact details (Name, LinkedIn, Email)**.