|  |  |  |
| --- | --- | --- |
|  | | |
| Flight Analysis: Report | | |
|  |  |  |
| Insights and Recommendations | | |
| Insights | | |

|  |  |  |  |
| --- | --- | --- | --- |
|  | 1. | Airline-A and Airline-B had the highest average delay per flight (~35–40 mins), whereas Airline B consistently maintained delays under 10 minutes. | |
|  | 2. | On which Days delays happen most and least? | |
|  |  | a. | On Tuesdays and Thursdays, Delays are minimum. |
|  |  | b. | On Saturdays, Delays is maximum. |
|  |  | c. | Other days are moderate. |
|  | 3. | April (4) and December (12) displayed maximum Avg\_Delay\_Time. | |
|  |
|  | 4. | Average\_Delay\_Time for Airline-A is maximum. | |
|  | 5. | Average\_Delay\_Time for Airline-D is minimum. | |
|  | 6. | On-Time Flight and Delayed flights are approximately equal. | |

|  |  |  |
| --- | --- | --- |
| Recommendations: | | |
|  | 1. | **Improve Weekend Operations**  **Insight:** Lowest On-Time % observed on Saturday & Monday ✅ **Action:**   * Increase ground staff & crew availability on weekends * Pre-load boarding, maintenance, and refuelling processes * Re-evaluate shift overlaps and backup aircraft allocation |
|  |
|  | 2. | **Focus on Airline A’s Delay Management**  **Insight:** Airline A has highest average delay (33 mins) ✅ **Action:**   * Deep dive into Airline A’s delay root causes * Implement stricter turnaround SLAs & predictive maintenance * Use penalty-incentive based vendor tracking (e.g., baggage handling, fuel refill) |
|  | 3. | **Address Seasonal Delay Peaks (Dec, Mar–Apr)**  **Insight:** Delay spikes in **March, April, December** (up to 37.3 mins avg) ✅ **Action:**   * Build a seasonal ops plan (extra gates, ATC pre-allocations) * Partner with weather prediction services for flight planning * Optimize holiday route load balancing |
|  | 4. | **Launch a Real-Time Delay Tracker for Customers**  **Insight:** Only ~49% flights on-time — customer trust may erode ✅ **Action:**   * Public-facing dashboard showing airline performance * Gamify on-time achievements (rewards, airline scorecards) * Push notifications about delay causes with transparency |
|  | 5. | **Use Delay Reason Attribution to Prioritize Fixes**  *(Assumed from data structure, not visible in chart)* ✅ **Action:**   * Track & visualize **weather vs. carrier vs. traffic** delays weekly * Invest in fixing top 1–2 most frequent delay contributors * Train frontline ops teams with custom SOPs based on root causes |
|  |  |  |