Conclusions & Key Insights

The Age variable reveals a pronounced lifecycle in India's auto-buying behaviour. Younger buyers under 30 gravitate toward entry-level models, mid-career customers (31–45) account for the bulk of premium and SUV purchases, and average household income climbs with age until the mid-40s before plateauing. Age also shows a moderate positive relationship with both car price and loan uptake, pinpointing where targeted financing and marketing can maximize impact.

- **Age Distribution**
  The single largest cohort falls in the 31–35 bracket, followed closely by 36–40 and 26–30 groups. Buyers under 25 represent a smaller youth segment, indicating limited first-time purchase activity.
- **Price Sensitivity by Age**
  - Ages < 30 predominantly purchase models priced ₹700 k–₹900 k (e.g., i20, Baleno).
  - The 31–45 segment shifts to mid-range and SUVs (₹1.2 m–₹1.6 m), with the 41–45 group edging into premium Creta/Verna territory.
- **Income–Age Relationship**
  Total household income rises steadily from the early 20s through the mid-40s, then levels off. A Pearson correlation of approximately 0.45 confirms older buyers can afford higher-ticket vehicles.
- **Loan Uptake Patterns**
  Personal and home loan rates peak within the 31–45 cohort, aligning with the prime buying age for higher-end models. Financing offers aimed at this demographic are likely to boost both volumes and average selling price.
- **Cluster-Derived Customer Segments**
  1. *Young Value Seekers* (under 30, lower income, entry models)
  2. *Mid-Career Upgraders* (31–45, mid-to-high income, SUVs)
  3. *Established Premium Buyers* (41–50, high income, Creta/Luxury)
  4. *Late-Stage Purchasers* (50+, mixed income, conservative spend)
- **Actionable Recommendations**
  - Prioritize digital financing bundles and EMI schemes for the 31–45 cohort.
  - Introduce first-time buyer leasing plans to attract under-30 customers.
  - Craft premium, safety-focused messaging for the 41+ segment to reinforce status and comfort.

GitHub Repository Link: [EV Market Segmentation via Age]