Name: Harshit Pandey
Email: pandeyharshit7277@gmail.com

Week 3 & Week 4 Deliverables

Objective

The objective of Week 3 and Week 4 together was to analyze digital screen time consumption patterns among children and understand behavioral differences using visual analytics. The focus was on studying how screen time is distributed across demographics such as age, gender, and location, and evaluating which segments show higher screen exposure. Additionally, the goal was to compare device preferences, examine educational versus recreational activity-based screen usage, and analyze changes in screen time behavior across weekdays and weekends. This combined analysis helps identify peak usage cohorts and provides deeper insights into device-driven engagement and digital consumption trends.

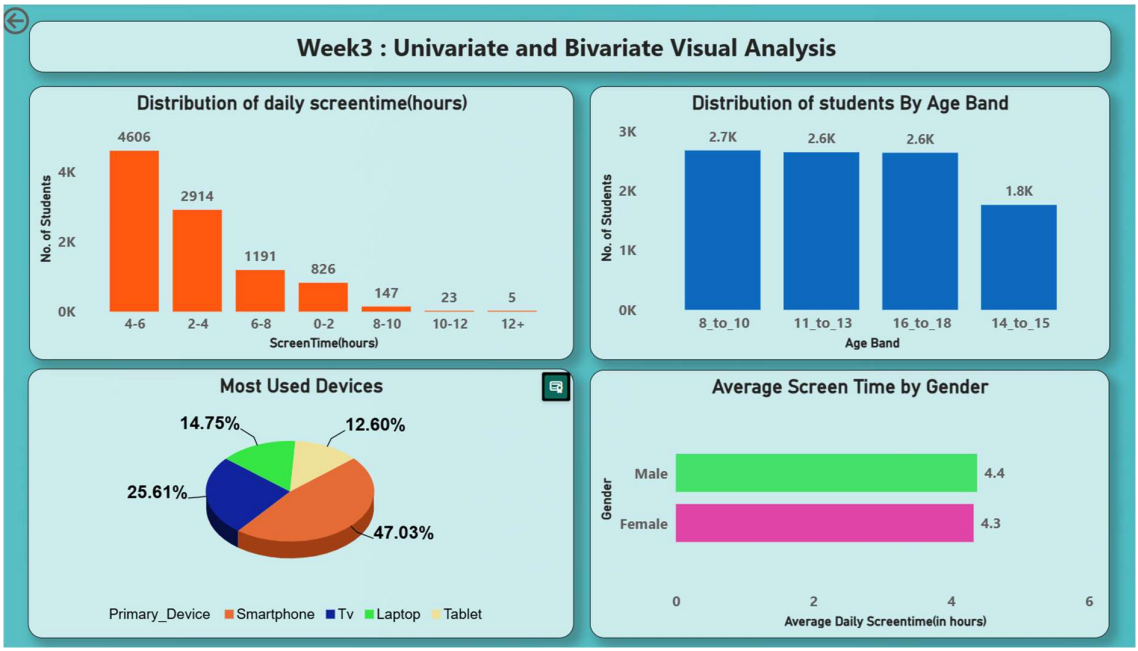
Tasks Performed

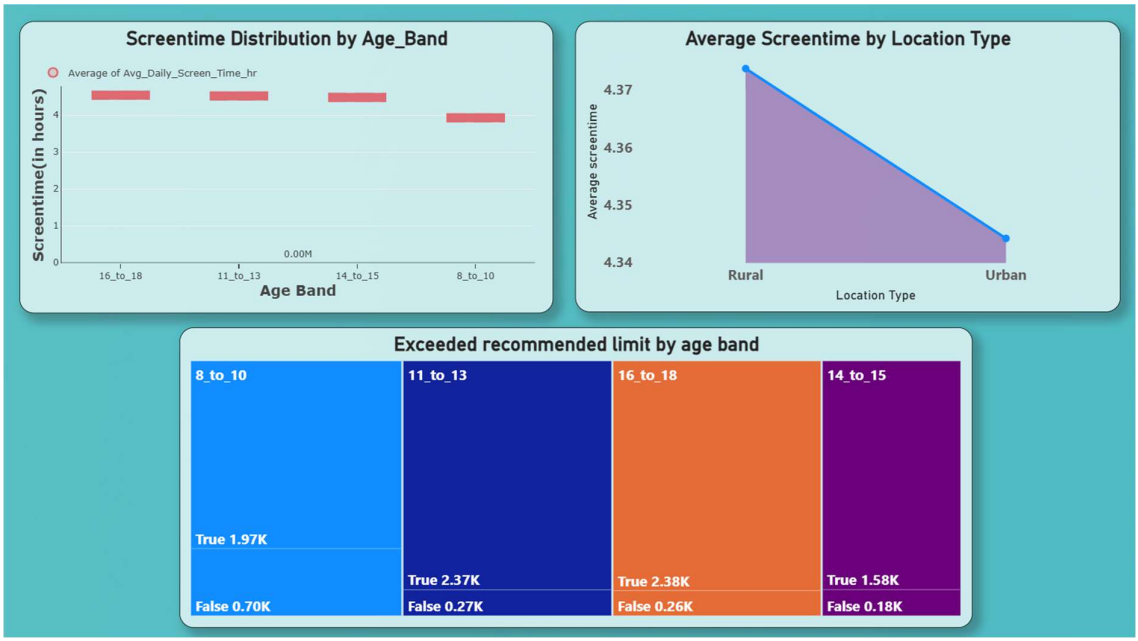
- Performed univariate and bivariate analysis on screen time dataset using Power BI visualizations.
- Created histograms, bar charts, box plots, pie charts, and comparison visuals to study distribution patterns.
- Compared screen time usage across age bands, gender groups, and rural vs urban categories.
- Analyzed device preference variations and primary device dominance across demographics.
- Calculated educational and recreational screen activity metrics through derived features.
- Created weekday and weekend screen time estimates based on activity segmentation.
- Created visual comparison of weekday vs weekend usage across gender, age band and location type.
- Identified peak screen time behavior patterns and high-risk cohorts for excessive digital engagement.

Name: Harshit Pandey
Email: pandeyharshit7277@gmail.com

Visualizations Snapshots

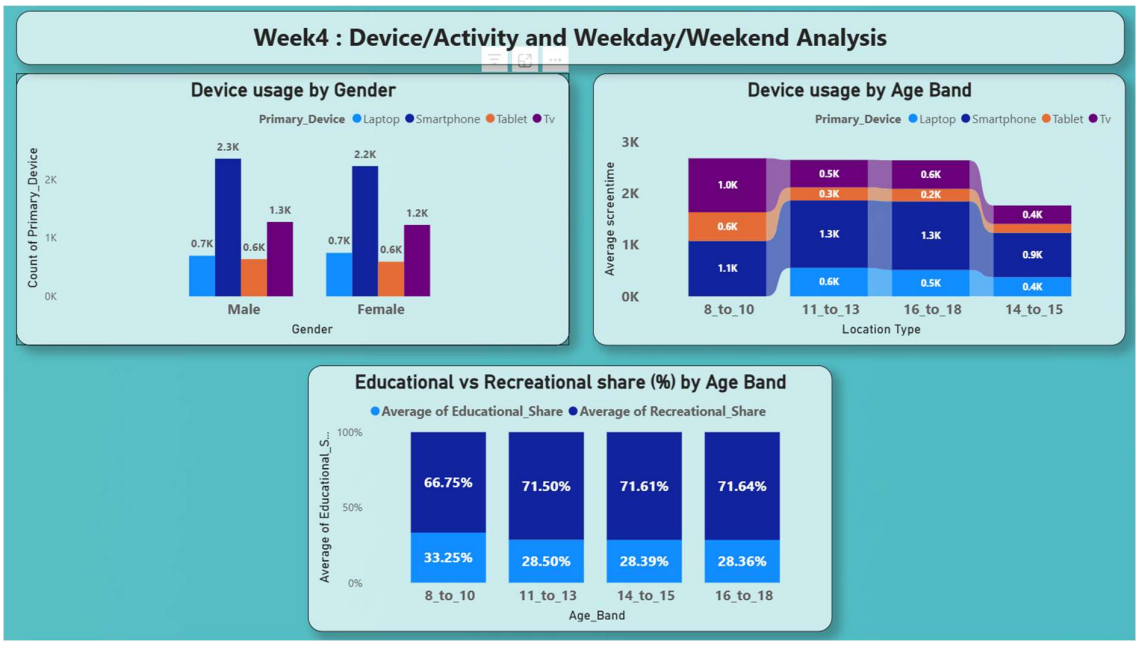
Week3:





Name: Harshit Pandey
Email: pandeyharshit7277@gmail.com

Week4:



Name: Harshit Pandey
Email: pandeyharshit7277@gmail.com

Observations on Peak Usage Cohorts

- The highest screen time usage is observed in the 14–18 age group, especially during weekends.
- Smartphone users show the strongest peak in total daily screen time compared to students using laptops, tablets or TV.
- Male students demonstrate slightly higher recreational screen engagement spike on weekends compared to females.
- Urban children show a more significant weekend increase in screen time compared to rural children due to higher device accessibility.
- Recreational screen activities dominate peak usage periods, indicating entertainment-based screen consumption as the major contributor.
- Weekend screen time across all demographics rises significantly compared to weekday screen time, making weekends the primary high-risk exposure window.