Job Analytics Dashboard

Component Architecture Notes

1. Overview The dashboard is structured into modular, reusable components to ensure clarity, maintainability, and scalability. State management is kept at the page level, while each component focuses solely on rendering UI based on its props.

2. Main Components • SummaryCards – Displays Today, Yesterday, This Week, This Month metrics. Accepts summary data, selected range, and callback to change range. • TrendChart – Shows engagement over time using area/line charts. Receives trend data and total clicks. • TopJobsTable Displays top-performing jobs with search, filtering, sorting, and export options. • LocationChart – A bar chart visualizing clicks by location. • JobCategoryChart – A pie/donut chart for job categories and their click frequencies.

3. State Management State is managed in the main page (app/page.tsx). It handles: • summary, weekly, monthly, and range data • selectedRange for card selection • startDate and endDate for range filtering • usingRange flag to override default behaviour with custom date range Each child component is stateless and only receives prepared props.

4. Data Transformation Before rendering, raw API data is transformed: • Daily breakdown is mapped into trendData • locationBreakdown and jobCategoryBreakdown are prepared depending on selected range • topPerformers is selected from summary, weekly, monthly, or range response This ensures components receive clean, predictable data structures.

5. Responsiveness Grid layouts and responsive containers ensure the dashboard adjusts smoothly across screens.

6. Visualization Justification • Cards → best for quick metric overview • Area chart → ideal for trends across days • Bar chart → clear representation of top locations • Pie chart → easy category distribution insight • Table → best for ranking an