PITP-II LMS Dashboard – Developer Requirements

1. Objective

We need a dedicated LMS dashboard for PITP-II Phase 2 that government officials and admin users can use to: - Monitor overall program progress. - Drill down into details (by center, course, gender, qualification, age, time slot, and batch). - Compare results across centers and batches. - Export summary reports.

2. User Roles

- Admin/Government Officials: Full access to dashboard. - (Optional future scope) Instructor/Center-level restricted view (not needed right now).

3. Filters Panel

Develop a filter bar with dropdowns. When a filter is applied, all charts and KPIs update dynamically. Filters include: - Batch: Batch 1, Batch 2, etc. - Center: Jamshoro, Hyderabad (Qasimabad, Latifabad, Autobahn, City), Mirpurkhas, Dadu, Thatta, Badin, Tando Muhammad Khan, Hala, Umerkot. - Course: 12 available courses. - Gender: Male, Female, Other. - Qualification: Matric, Inter, Graduate. - Age Group: Below 18, 18–22, 23–26, 27–28. - Time Slot: Morning, Afternoon, Evening, Night. Include an 'Apply Filters' button.

4. KPI Cards

Show key program statistics in simple cards: - Total Students - Active Students - Total Courses - Total Centers - Time Slots Running - Average Attendance (%) - Average Performance (%) - Completion Rate (%)

5. Charts and Visuals

Enrollment: - By Gender (Pie Chart) - By Age Group (Bar Chart) - By Qualification (Pie or Donut Chart) - By Time Slot (Stacked Bar) Attendance: - Weekly Attendance Trend (Line Chart) - Center-wise Attendance (Bar or Line Chart) - Dropout Rate (if attendance falls below threshold) Performance: - Quiz/Assignment/Project Scores (Histogram or Distribution) - Average Performance per Center (Bar Chart) - Batch Comparison (Bar/Line Chart) Geographic Insights: - Interactive Map of Sindh - Each center shown as a bubble - Bubble size = number of students - Hyderabad split into 4 sub-centers

6. Reports and Exports

- Export current dashboard view as PDF. - Export raw data as Excel (CSV). - Auto-include applied filters in export header.

7. Interactivity

- All visuals must be interactive and dynamic. - Hover tooltips should show exact numbers. - Filters should instantly update KPIs and charts.

8. Technical Notes

- Dashboard must be scalable for future batches and more students. - Optimize performance and queries. - Use responsive design for desktop and tablet support.