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ArcGIS Online Development Plan

Week 2: Practical Tasks – Dashboards & Experience Builder

Project Title:

Develop an Interactive Analytical Web Application using ArcGIS Dashboards and Experience Builder

Project Description:

In this project, the trainee will design a complete analytical solution using ArcGIS Dashboards and Experience Builder to visualize, interact, and present key GIS data insights. The goal is to create a multi-layer dashboard connected to a Web Map and integrate it into an Experience Builder app that combines analytical panels, interactive filters, and spatial summaries.

Detailed Tasks:

1. Data Preparation

- Reuse or enhance the Web Map created in Week 1.
- Add additional operational layers (e.g., incidents, assets, inspections, or survey results).
- Ensure attribute tables include numeric and categorical data suitable for charts and indicators.
- Create layer views if necessary to separate data categories or permissions.

2. ArcGIS Dashboards Design

- Create a new Dashboard connected to the prepared Web Map.
- Add multiple visualization elements:
 - * Indicators for counts, percentages, or KPIs.
 - * Lists for top records or critical issues.
 - * Charts (pie, bar, serial) representing spatial statistics.
 - * Maps for geographic context.
- Configure Actions to make the dashboard fully interactive (filtering, zoom, selection).
- Use Advanced Formatting (Arcade) to customize indicator colors, labels, and thresholds.
- Apply appropriate layout and theme for professional design.
- Test the Dashboard responsiveness on different screen sizes.

3. ArcGIS Experience Builder Application

- Create a new Experience Builder project.
- Design a Home Page and Analytics Page layout.
- Add essential widgets:
 - * Map Widget linked to the same Web Map.

- * Dashboard Widget embedded from ArcGIS Dashboards.
- * Filter / Search Widgets to navigate data easily.
- * Text, Button, and Image Widgets for branding and navigation.
- Set up Page Navigation and define Actions between widgets (e.g., selecting a record zooms the map).
- Customize Themes, Panels, and Layouts for user-friendly presentation.
- Configure sharing settings within the organization and ensure public access if needed.

4. Integration & Testing

- Publish the Experience Builder App and verify that all Dashboard elements display correctly.
- Test data updates in real time (edit a feature in the Web Map and confirm changes appear in the Dashboard and App).
- Review overall app performance, interactivity, and load times.
- Validate map navigation and filter accuracy.

Deliverables:

- A fully functional ArcGIS Dashboard with indicators, charts, and actions.
- An Experience Builder App embedding the Dashboard and Map with user navigation.
- A short technical report describing app purpose, design, and insights gained.
- Screenshots or screen recordings showing interactivity between the Dashboard and the Experience Builder App.