DashTricks: Pakistan

Team

- Jennifer Apacible
- Brian Donohue
- Austin Hedeen
- Daniel Luna
- Dov Shlachter

Problem

- Although vaccination has saved countless lives in Pakistan, many still die due to inefficiencies in the vaccine cold chain allocation and distribution system

- Resource allocation for vaccine cold chains is time consuming and error prone

- Problem areas have low visibility, potentially leading to vaccine shortages

Solution

- ▶ Automate as much of the cold chain calculation as possible
- ▶ Allow users to simulate different types of scenarios
  - ▶ Epidemics, new vaccines, etc.
- ▶ Point out potential problem areas
- ▶ Suggest ways to deal with hotspots based on available resources

Customers

- Those with a vested interest in improving the cold chain network in Pakistan.

- Example customers include:
  - Regional / District Managers
  - Potential Donors
  - Vaccine Advocates
  - Aid Groups

Challenges

- Technical
  - Constrained to the Android platform
  - Complexity of cold chain modelling
  - Data not always in readily usable forms
- Environmental
  - Time
  - Data entry amount, format, & correctness
  - Lack of domain specific knowledge
  - Minimal feedback & product iteration with customers

Requirements

- Calculate cold chain resource requirements
- Model current resource levels
- Allow for easy extending of resource requirements
- Suggest future resource allocation
- Show potential problem areas
- Update to future data

UI & Workflow

UI & Workflow

UI & Workflow

UI & Workflow
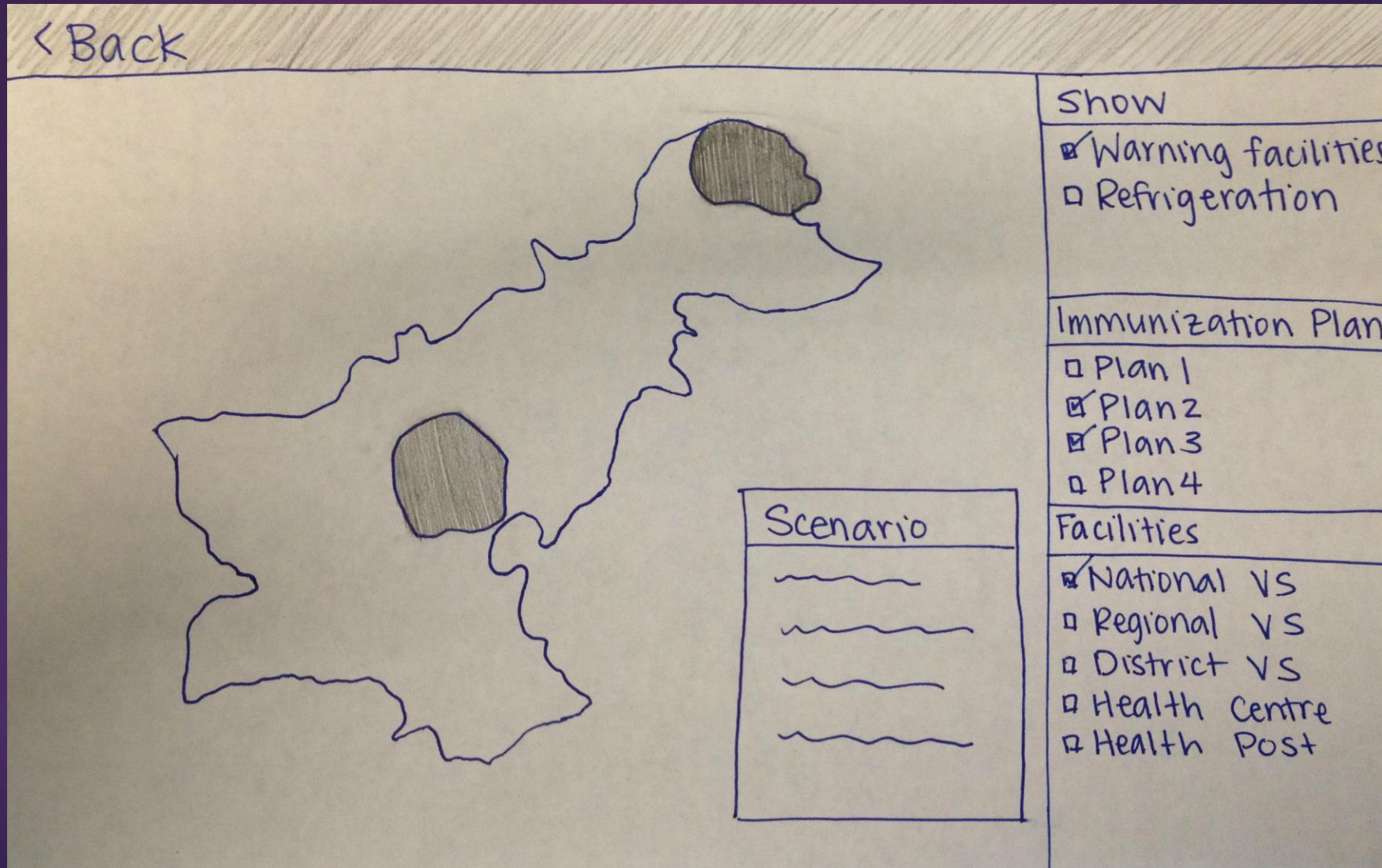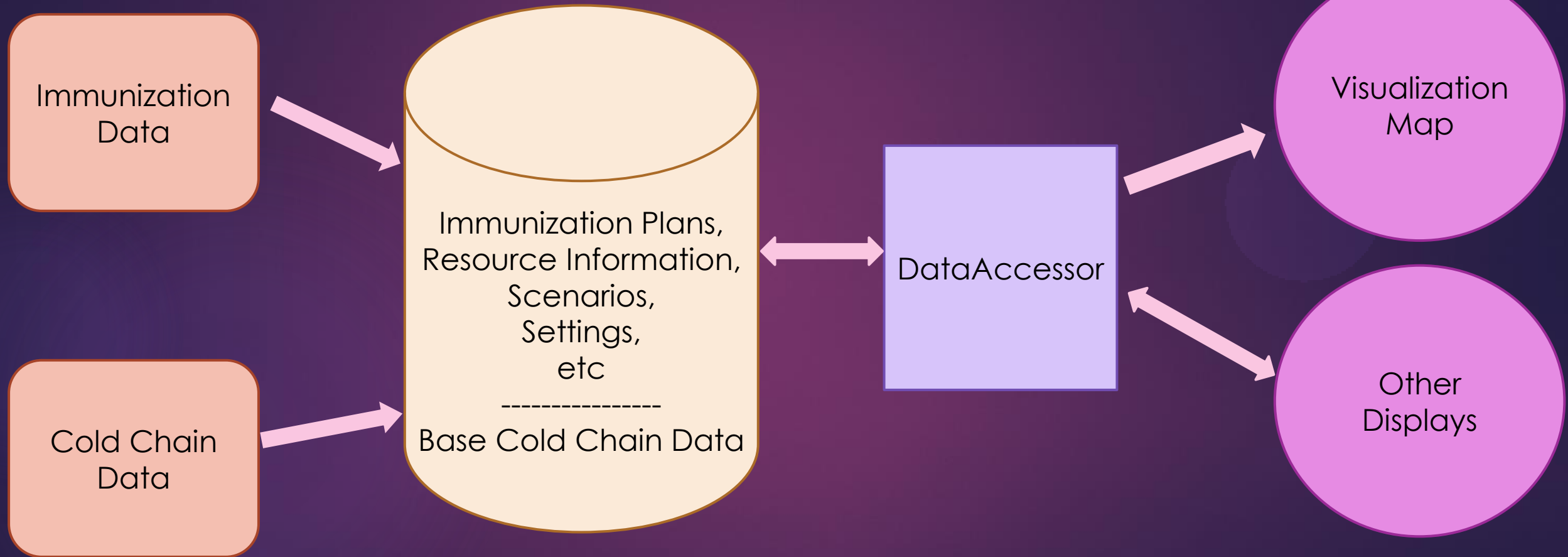
UI & Workflow

System Architecture

Work Plan

- Week 1: Introduction to domain and Android.
- Week 2: External resource exploration. Workflow & UI prototyping. Schema prototyping.
- Weeks 3 - 4: Required component creation.
- Week 5: Integration. Creation of minimum viable product.
- Week 6: Feature freeze. Dedicated testing and bug fixing.
- Week 7: Alpha test begins. Work on secondary features begins.
- Weeks 8 - 9: Alpha test feedback received, and incorporated. Secondary features finalized.
- Week 10: Feature freeze. Dedicated testing and bug fixing. Project write-up.

Questions?

HTTPS://GITHUB.COM/JAPACIBLE/DASHTRICKS-PAKISTAN