Data Integrity & Abuse Prevention

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Client: Camille Gaillard, Postdoctoral Scholar, NAU, Flagstaff, AZ
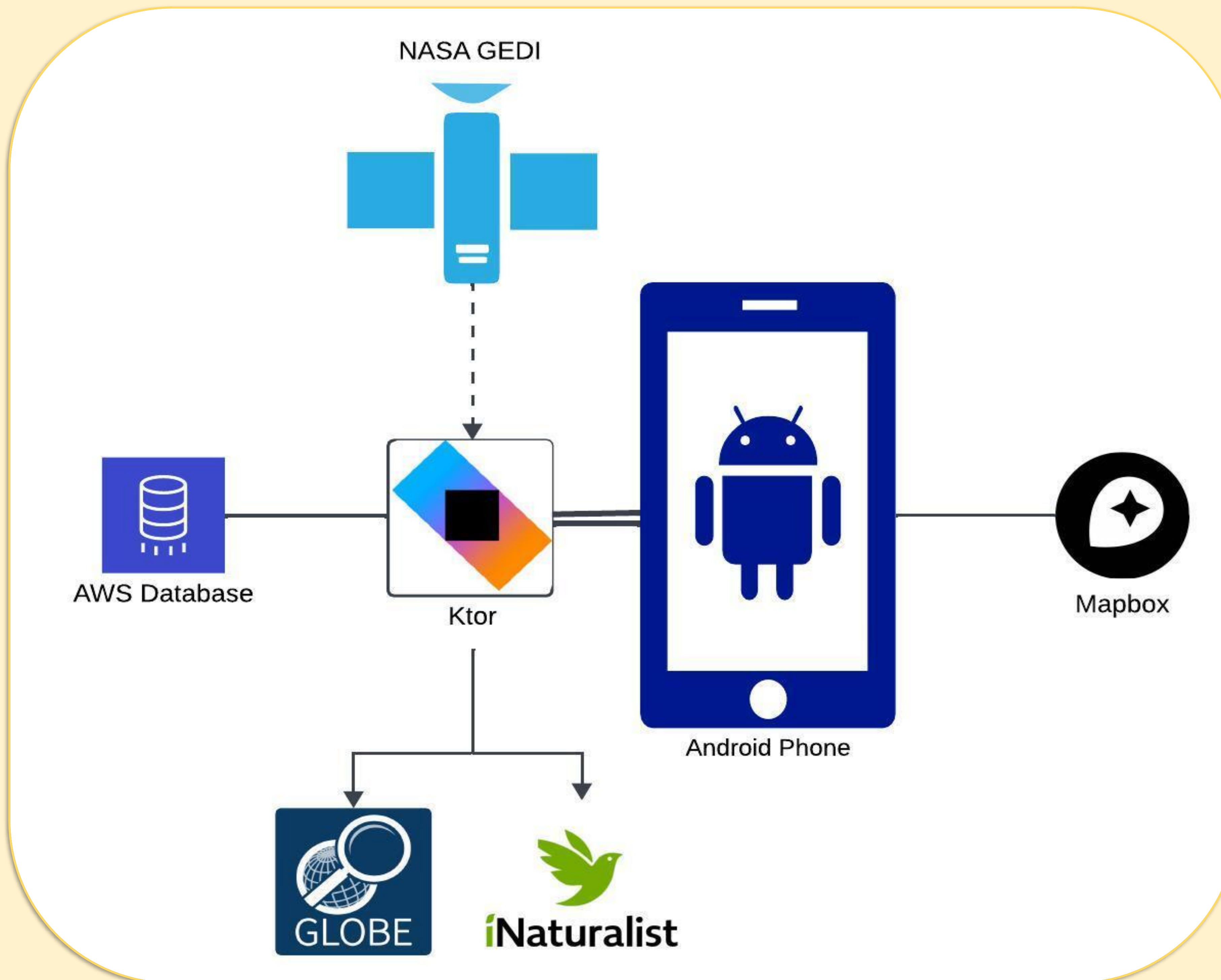
Team Mentor:
Scott Larocca

Motivation

- Imagine an app like *Pokémon GO,* but instead you are capturing data on trees and wildlife!
- 30% of earth's land and sea will be conserved by 2030
- Biodiversity preservation
- Displaced rural and remote communities
- Funnel money into communities in need

Our Proposed Solution

NASA GEDI

AWS Database — Ktor — Android Phone — Mapbox

GLOBE   iNaturalist

Feasibility

- Proven offline success with All Trails, a hiking application
- Ktor's ability to query hd5 GEDI data
- Commonality of Android in small communities
- JavaScript functionality with all services
- Data transfer may be taxing.

Plans, Goals, Stretch Goals

- Data verification and upload
- Interactive map
- Offline functionality
- Backward compatibility
- Multi-language support

Solution Overview

- GEDI footprint coordinates are retrieved with **Ktor**
- The coordinates are added to the **Mapbox** interactive map
- Users navigate to these coordinates on the map to upload data

Technologies Planned

aws