

# Integrated University Map

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# Problem

- There is not an efficient map for students to use to be able to find their way around campus easily
- The current solutions that are available are using Google Maps or the current campus map
- The impact of not having the solution is students can be late to their classes if the location of the classroom is difficult to find

# Objective

- Create an enhanced campus map focused on the interior of University of Arkansas buildings
  - Build on current campus map available through the university's website
- Interactive features: navigation, interior building views, saved locations
- Tools: Google Maps platform and Flutter
- Design: maximize ease of use with clutter-free user interface

# Key Concepts

- Flutter/Android
  - Framework build on Dart language
  - Allows for cross-platform application
- Google Maps API
  - Client side maps API



# Requirements

- Google Maps Platform for API and Map function
  - Real-time map data, dynamic map interaction
- Interior views for buildings
  - Access floor plans, sync user's location inside floor plan
- Clean user interface
  - Easy to learn, uncluttered UI elements

# Use Cases

- Primary users: people who commute to campus often
- Access app on their smartphone
  - Use app to navigate to different areas on campus
- Users can plan routes as they are navigating campus.

# High-Level Architecture

- Client application
  - Opens to a map of campus
  - Can choose to navigate to a building
  - Can open the interior view of a building
    - Can select a room from the interior map to navigate to
    - Can input a room number to navigate to
  - Can input a building and room number to navigate to
- Server application
  - Serves the indoor map data to the client app



# Tasks

- Pre-Knowledge
- Map View
- Building View
- User Data
- Routes

# Deliverables

- Design Document
- Application Source Code
- Compiled Application
- Final Report

# References

[Campus Map | University of Arkansas \(uark.edu\)](#)

[Google Maps](#)

[Statista App Download Statistics](#)

[Missouri S&T Campus Map Application](#)