#### **MICHIGAN STATE** IVERSITY **Project Plan Spotlight: Discovering Clubs and Student** Organizations The Capstone Experience Team Michigan State University ITS **Collin Nicaise Brendan** Carpio Noah Stewart Koshiro Iwasaki Department of Computer Science and Engineering Michigan State University

Fall 2019

From Students... ...to Professionals

## **Functional Specifications**

- Assist students in discovering MSU clubs/organizations based on personal interests, major, etc.
- Simplify the registration process for prospective members
- Provide group and event recommendations based on interests and major
- Club leaders have centralized app for club information and announcements

## **Design Specifications**

- Discover page: list clubs and events based on suggestion algorithm
- Group page: Show all information about group and allow executive board members to edit
- Announcements: Display updates from groups
- Search bar and filters to find specific clubs
- Map interface to show events happening nearby

### Screen Mockup: Mobile User Profile



# Screen Mockup: Mobile Discover



The Capstone Experience

#### Screen Mockup: Mobile Group View

CDiscover		•	
Swimm Tags: active President: Al Contact: swii Number of member Commitment Level	swimming ice Green mclub@msu.		Register
friends, and go on	adventures! We typ	o swim (obviously), hangou jically meet at IM East ever sion. Feel free to stop by a	ry Wednesday
Open Events Movie Night Where: 1279 When: 7/24/1		Ice Cream Trip Where: MSU Dair When: 7/12/1776	
Open Swim Where: IM We When: 7/7/17		First Meeting Where: 1279 Anth When: 7/4/1776 @	
Recent Annour Our first meet is n assigned carpool		o State. Leave on Friday w	7/4/1776 ith your
		nt out to your school email th tryouts next week. Pleas	6/18/1776
If any graduating house by next Th		leftover equipment, please	6/7/1776 return to the
Home	Discover	r Clubs	Me

# Screen Mockup: Mobile Announcements

Home			
Hey even tonight in	g Club   <sup>Alice</sup> yone! We hav Wells 215. T see you all th	e an optiona here will be	
Going	Ма	ybe	Not Going
Swimming	g Club   Alice	Green	9/14/1776
Come get at 723 MA	t your shoes t AC Ave.	tonight at the	e meeting
Swimmin	g Club   Alice	Green	9/12/1776
	n social on Sa SU Dairy Stor		
Going	Ma	ybe	Not Going
Home	Discover	Clubs	Me

# Screen Mockup: Web User Profile

•		+				
$\rightarrow$ C $rac{1}{2}$						
	Josh Rollins rollin23@msu.edu				PIC	LIST
	Major: Computer Science Interests: Active, Swimming			EVENTS		
CLUBS/EVENTS						
ANNOUNCEMENTS						
EDIT PROFILE/PREF	EREINCES					
HELP/FAQ				X		
ABOUT			,	Fencing Club	Ski Club	
			ng	Active, Sport	Active, Winter, Ski	
SIGN OUT						

# Screen Mockup: Web Group View

	C <b>û</b>	+		
	MENU SEARCH			PIC LIST
CLUB	S		EVENTS	
	MY CLUBS	Swimming Club Swimming, Active		
	SUGGESTED CLUBS			
	Rock Climbing Club Swimming, Active	Water Polo Club Active, Swimming	Fencing Club Active, Sport	Ski Club Active, Winter, Ski

#### Screen Mockup: Web Announcements

← → ♂ ☆	
LOGO MENU	
BACK	Swimming Club EDIT   TAGS: Active, Swimming   PRESIDENT: Alice Green   Contact: swimclub@msu.edu
	Description: We are the swimming club! We love to swim (obviously), hangout, make new friends, and go on adventures! We typically meet at IM West every Wednesday night at 8pm for an hour swim session. Feel free to stop by anytime!
	Events:     Welcome Back OpenSwim     Where: IM West     When: 1/18/1777 @ 7PM     Movie Night 2     When: 1/24/1776 @ 7PM
	Recent Announcements:

## **Technical Specifications**

- Cloud-based server-less API and NoSQL database hosted in AWS
- Scalable with On-demand pricing and performance
- User profiles and accounts secured and managed by Amazon Cognito
- Maps and location information from Google Maps and Apple Maps

# System Architecture



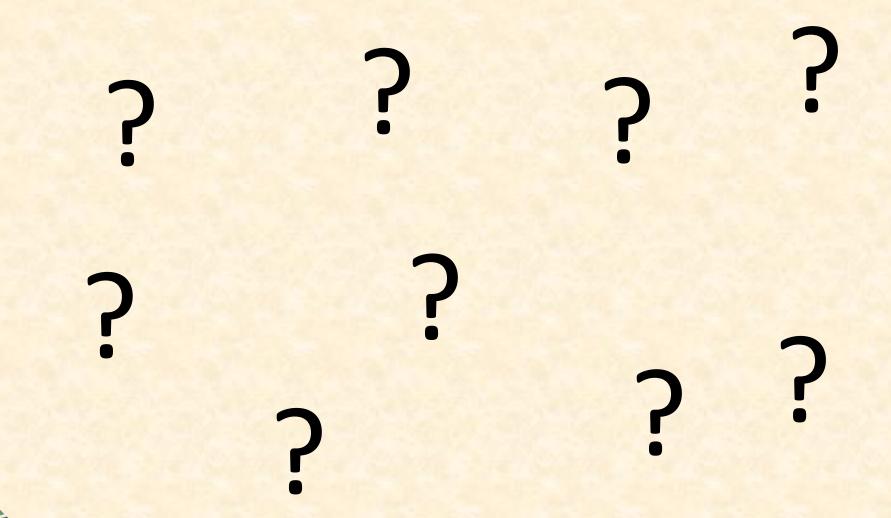
### System Components

- Hardware Platforms
  - IOS
  - Android
  - Web (mobile responsive)
- Software Platforms / Technologies
  - Amazon Web Services
  - IOS: Swift
  - Android: Kotlin
  - Web: Vue

### Risks

- Risk 1 (Easy)
  - Allow non-MSU affiliated users to take full advantage of app
  - Ask user for all information and authenticate without netID
- Risk 2 (Medium)
  - Allow users to locate groups / events and show nearby events happening soon
  - Get data from Google Maps and Apple Maps APIs. Open links in local map apps.
- Risk 3 (Hard)
  - Suggesting relevant groups and events to users
  - Algorithm comparing user's major and interests to population and tags of groups and events.
- Risk 4 (Hard)
  - Integrating club membership registration
  - Procedural user on-boarding for club membership

### **Questions?**



Team [Team Name] Project Plan Presentation