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Process Description

Software Toolset

- **Programming Languages**
 - **Front-end.** We will use Java, XML, and JSON, as our usage of Android SDK suggests the usage of these particular languages.
 - **Back-end.** We will use MySQL, as this is a well known and reliable way to manage our database and it is the one our team is most comfortable using.
- **Data Sources**
 - **Users.** All of the profile, event, and attendance information will be directly supplied by the users.
 - **Google Maps.** This will be the source of all mapping and location information.
- **Version Control.** Git/GitHub.
- **Bug Tracking.**
 - **Log.** We will keep a detailed log of all bugs that we encounter.
 - **Regression Testing.** For each bug, we will add test cases that will identify if the bug recurs.
- **Other Tools.**
 - **Android SDK.** We opted for the native solution on Android because it is more efficient and reliable.
 - **Google Maps API.** This is the most well known source to use for our major functionality of map and location integration.
 - **Facebook SDK.** This is a convenient and secure way of establishing user profiles with authentication.
 - **GPS Services, Device Information.** Our app also requires information about the user's specific device, particularly its location, screen resolution, system, version, etc.

Group Dynamics

- **Project Manager.** Jesus E. Larios Murillo.
- **Role Division Strategy.** We will divide work by feature, such that every team member will be in charge of designing, developing, and testing their assigned elements of the app. This works well with our app because it is easily divided into pieces. Dividing the work this way allows all member to work concurrently and for each feature to arrive at its milestones at different times.
- **Disagreement Resolution Strategy.** Voting will be used to resolve conflicts as it is the most elastic and fair solution.

Schedule / Timeline

- **Event Management:** 4 weeks (larioj, ruijiw)
 - Database Schema
 - Database Queries
 - Backend API
 - AWS (Infrastructure), MySQL Service on Cubist
- **Location Services:** 2 weeks (logoshi)
 - Learn Google Maps API (1 week)
 - Implementation (1 week)
- **Basic Profiles and Authentication:** 2 weeks (bentebbs)
 - Facebook API
 - Profiles UI
- **Search Functionality:** 3 weeks (hopesc, liuh25)
 - Searching by tags and description
 - Filtering results
 - Search UI
- **Jan 22** -- Software Requirement Specification
 - Preliminary UI Design
- **Jan 26** -- Weekly Report 2
 - Preliminary Database Schema
 - Self-Directed Learning
 - Google Maps API
 - Facebook API
 - Android Studio
 - Android SDK
 - Backend Infrastructure (AWS, Cubist)
 - Personal Tutorial Projects
- **Feb 01** -- Software Design Specification
 - More Self-Directed Learning
 - Preliminary Backend Design
 - Preliminary Search Design
 - Rough UI Components
 - Display Login Screen
 - Display Primary Map Screen
 - Display Overlay Pins
 - Display List Screen
- **Feb 02** -- Weekly Report 3
- **Feb 08** -- Zero-Feature Release
 - More UI Components
 - Display User Profile

- Display Settings
 - Usable Backend Prototype/API
 - Backend Stubs
 - UI component Finalization
 - UI component Integration
 - Continuous Integration Framework
 - Testing Framework
 - Automated Testing
 - Initial Tests
- **Feb 09** -- Weekly Report 4
- **Feb 16** -- Weekly Report 5
 - Backend AWS Infrastructure
 - Working Event Management
 - Add event
 - Delete event
 - Subscribe to event
 - Remove yourself from event
 - Working Location Services
 - Get location
 - Set location
 - Find location
- **Feb 19** -- Beta Release
 - User Profiles
 - Facebook Integration
 - Authentication
 - Improve UI transitions
 - User testing/surveys
 - Finalize Backend API
 - Finalize Search Functionality
- **Feb 23** -- Weekly Report 6
- **Feb 26** -- Feature Complete Release
 - Extend Profiles
 - Add rating system
 - Extend Event Management
 - Push event to Facebook
 - Notification System Design
- **Jan 01** -- Weekly Report 7
- **Jan 04** -- Release Candidate
 - More Profiles
 - User history
 - User Stats
 - Extend Event Management
 - Add invitations

- Improve Documentation
 - Polish Existing Components
- **Jan 08** -- Final Release
 - Polish Existing Components
 - Market

Risk Summary

- Falling Behind / Underestimating Time Requirements
- Learning APIs and tools