

# Event Finder

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# App idea

## Application scenario

- User wants to attend events
- Application suggests upcoming events to user  
→ App gives user an idea of which events to attend

## Platform

- Android

# Adaptation Scenarios

## Types of Context

- Network stability measured by Bandwidth / Latency
- User location (consider the difference between the amount of events in a big city and a town)

# Adaptation Mechanisms

## Adaptation of application data:

- For when the user has an unstable internet connection:
  - Filter data based on user preferences on the server side:
    - Load event information that the user is interested in first
    - Prefer events that user's friends attend
  - Replace images with a placeholder located on the client (Lossy conversion can also be an alternative)

# Adaptation Mechanisms

## Adaptation of communication:

- To enhance user experience and balance network access:
  - Pre-fetch Event information and cache inside device when the user has a stable connection
    - Look for nearby events regularly and save their information to make them accessible offline
  - Lazy evaluation when the user is using phone data
- Dynamic search radius server-side to retrieve a minimum number of events.
  - When the user is in a small town with a low amount of events, the server will increase the search radius

# Technology

## Main Application

- Android API 26
- Programming language: Kotlin

## Server backend

- Node.js application to provide API services for the app client
- Handle application – database interaction to deliver relevant information to the user as described in previous slides

## Database

- NeDB Javascript Database
- Store Event and User related Information