

# StreaMUM- video streaming application

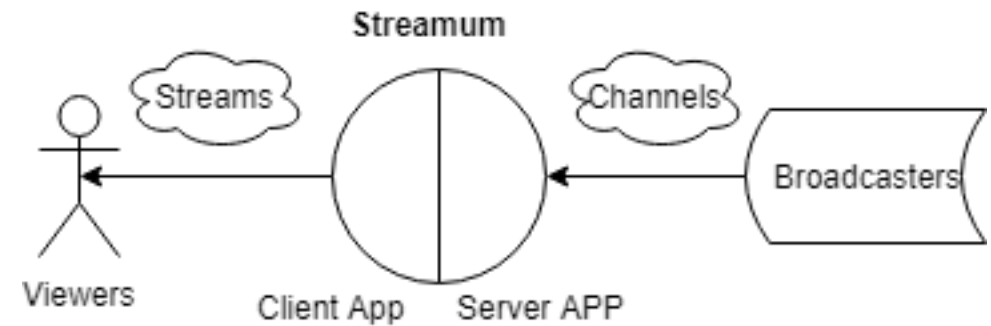


**By:**

- Daniel Abraha
- Timothy Nuwarinda
- Benyam Hadgu

# StreamMUM

- (Live) video streaming application
- Multitude of sources: video, audio, web cam, etc.
- Architectural Components
  - **RTMP client** software (e.g. OBS)
  - **Client app.** for interfacing with viewers and broadcasters (angular app.)
  - **Server app.** for converting RTMP to HLS (node.js + node ) streams
  - **Browsers** used by viewers
- Technologies
  - Node.js, angular, express, mongoose, mongodb, Trello collaboration, git, and all the good stuff ...



# PROBLEMS

- Domain- uncharted territory for members
- Few guideline on RTMP client software (OBS) we used
  - Toughened troubleshooting; often resorted to try and error
- Route management
  - Refreshing on an existing routing amidst changing data coming from server. Specially for the child routes;
- Generating livestream thumbnails
  - Avatar Generator for the rescue; and last resort
- Some features not implemented
  - Step learning curve and time constraint
- Etc.



# LESSONS LEARNED

- Handling huge chunks of multimedia data
  - As fundamentally used by Netflix, youtube, facebook, etc
- Live Streaming technologies
  - Real-Time Video Messaging Protocol (RTMP)
  - HTTP Live Stream (HLS)
  - Etc.
- Node.js Media Server and its APIs
  - RTMP media server

