

# APP FOR RECORDING AND PLAYING GEO TAGGED VIDEOS

- ▶ **Ministry/Organization name:** Indian Space Research Organisation (ISRO)
- ▶ **Problem Code:** NM380
- ▶ **Team Name:** BDTC
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# IDEA/SOLUTION

- ▶ A **mobile application** to record and play **geotagged** videos.
- ▶ Ability to **export geographical data** in KML format.
- ▶ Seek through **video via video interface** and **map interface**.
- ▶ **Filter recordings** based on factors such as **location and date**.
- ▶ Users can select the desired **resolution and framerate** of the video.
- ▶ **Live-streaming** capability from other devices with the app or from **drones**.
- ▶ **Cross-platform mobile** (Android/iOS) and **desktop** (Windows/Linux/MacOS) applications.
- ▶ Option to select **different map types** (standard, satellite, terrain, hybrid).

## TECHNOLOGY STACK

### FRONT-END

Flutter (Android and iOS)  
ElectronJS (Desktop)

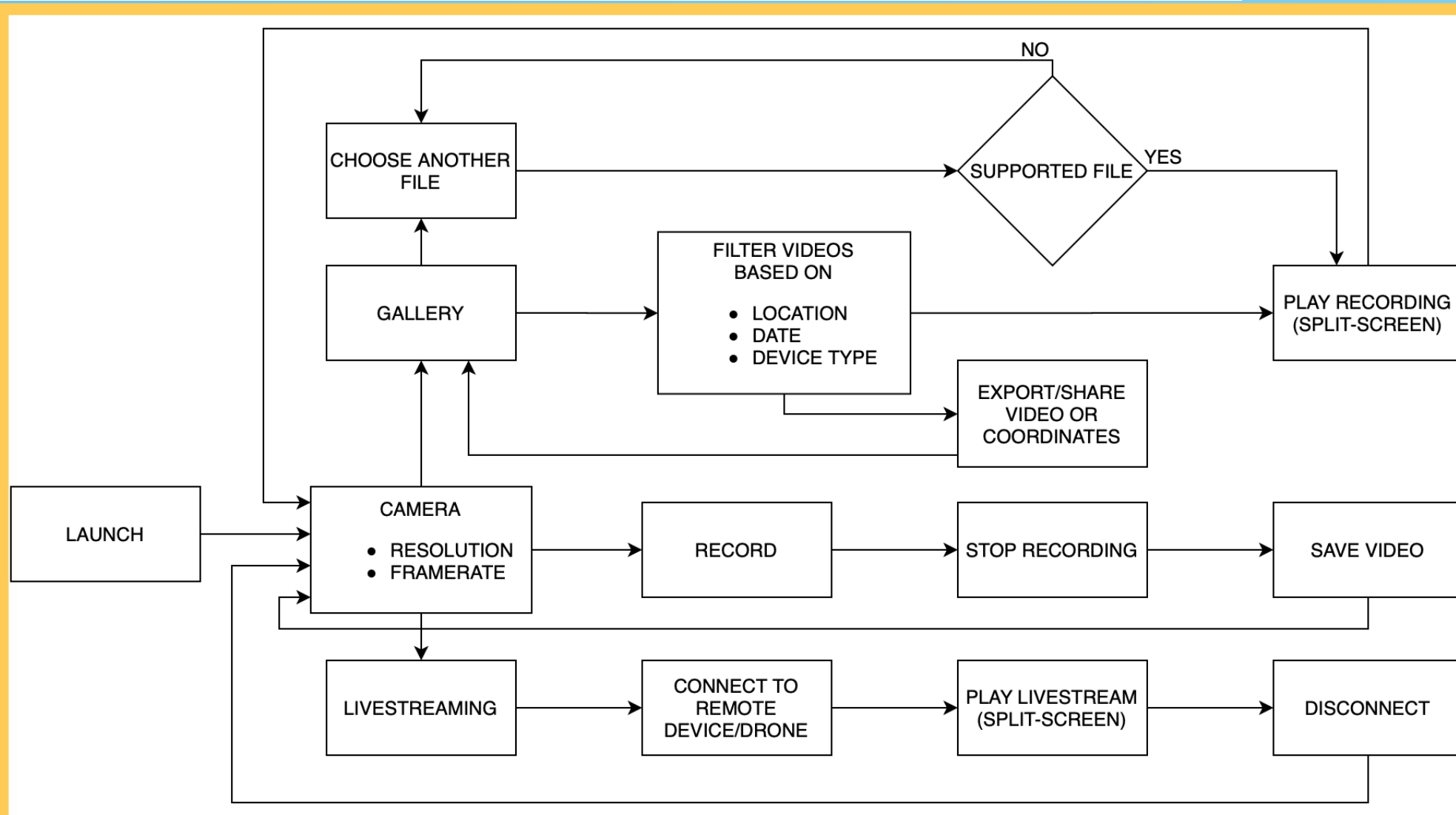
### BACK-END

NodeJS (Server)  
MongoDB (Database)  
ExpressJS (Framework)

# SOLUTION: PROCESS

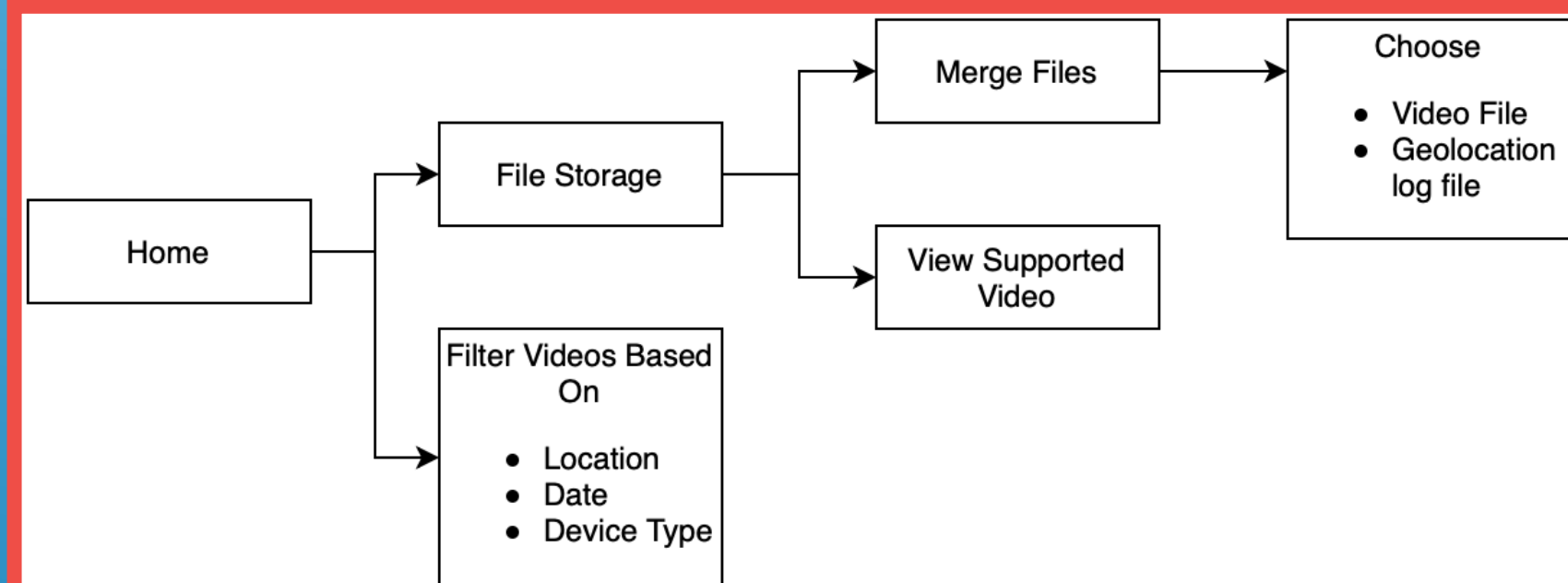
1. While recording, the **coordinates are logged** with the current timestamp at an interval of one second.
2. The video is saved in a **custom file format** which can be played within the app itself. This file will consist of the recorded video as well as the coordinates.
3. This file can be played on the app in **split-screen mode** with the top half playing the video and the bottom half plotting the coordinates on a map.
4. The app can **export** this file as a video as well as export the **coordinates** in **KML format**.
5. All videos recorded from the app can be accessed via the Gallery function. These **recordings can be filtered** on the basis of location (by querying the attached KML file) or by date.
6. The app is capable of **live-streaming feed** from another device like a drone. **Sockets** will be used to buffer the video and forward it to users on the same channel.

# FLOW DIAGRAMS

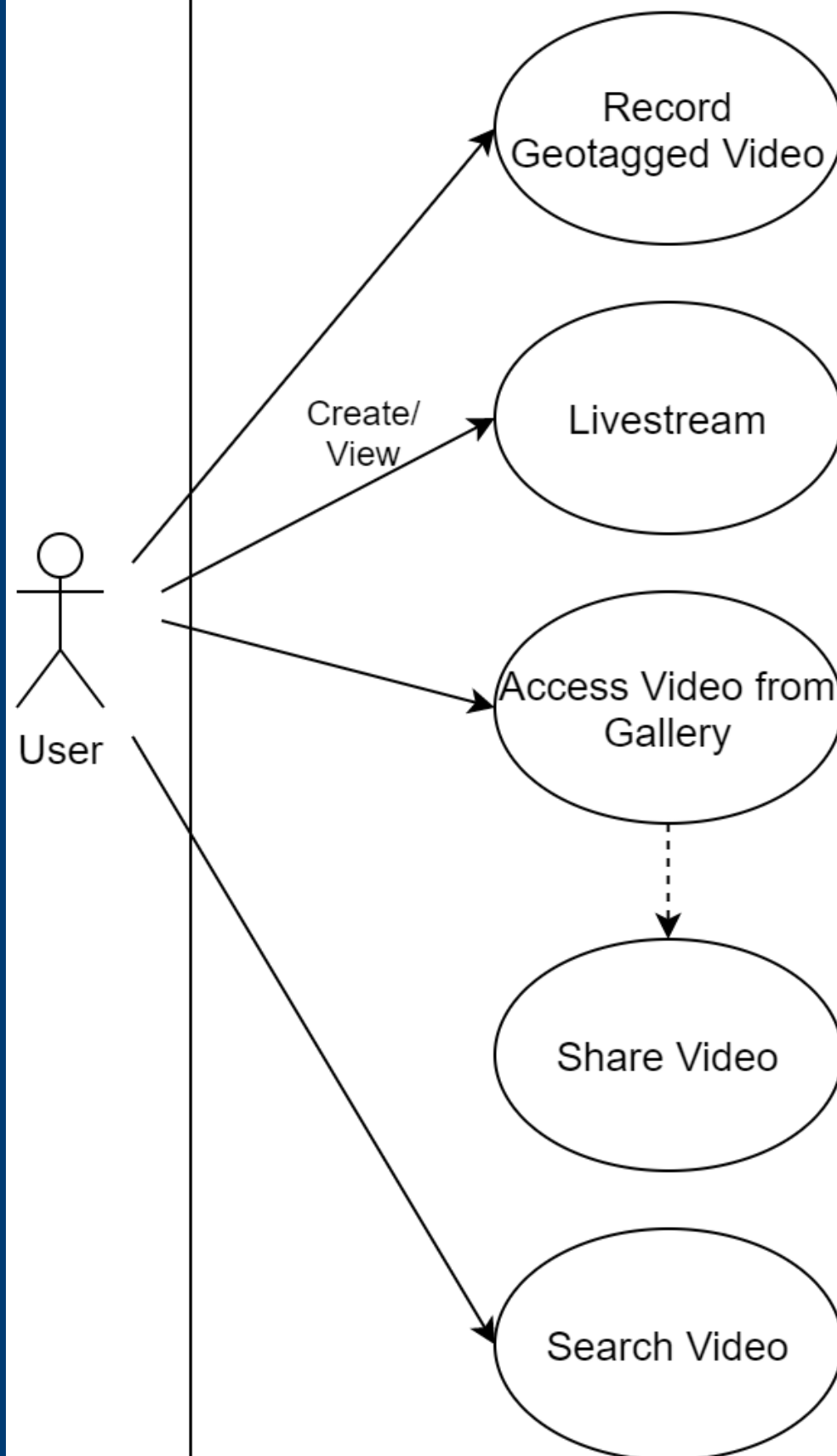


## MOBILE APP

## DESKTOP APP



# USE CASE



# DEPENDENCIES

- ▶ Global Positioning System (GPS)
- ▶ Google Cloud Platform

# SHOW-STOPPER

- ▶ Poor GPS reception
- ▶ Live-streaming hurdled by poor internet connection