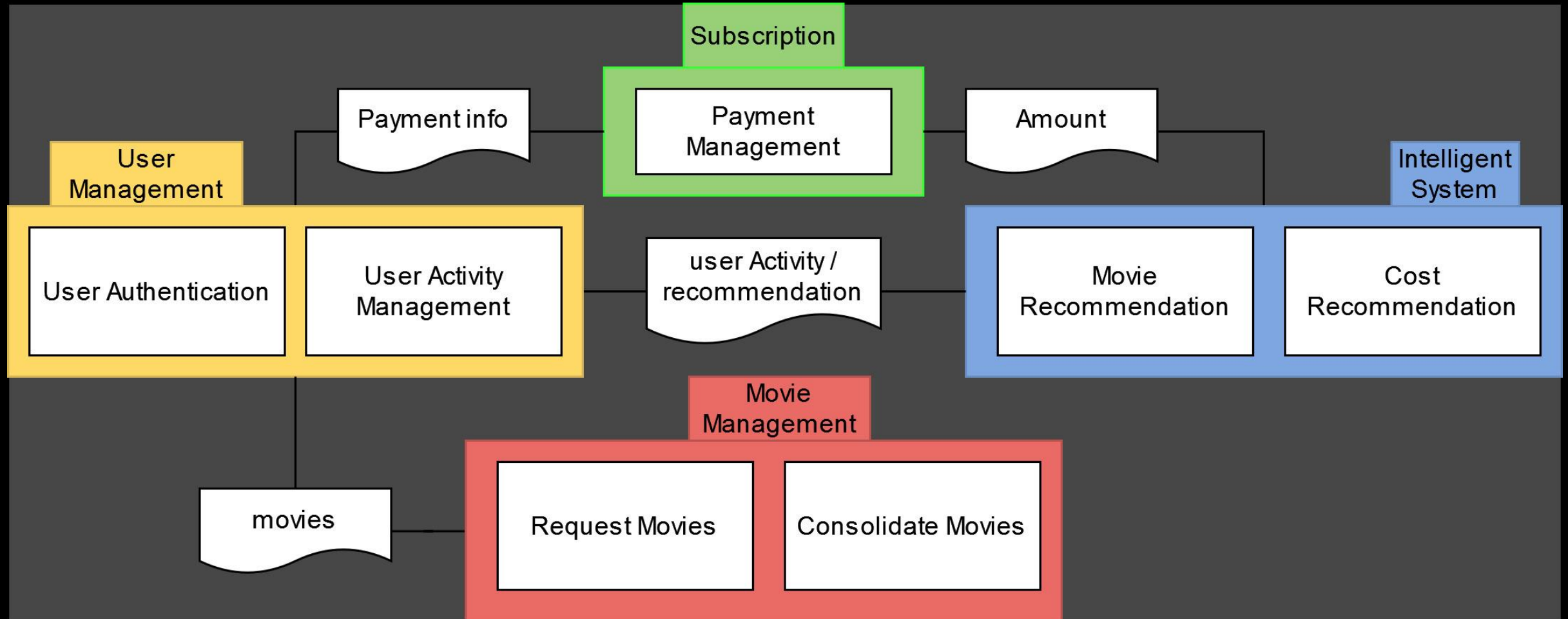# CineStream Architecture

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2020900015

Modules and Services

Movie Management

1. *List CineStream Movies*: Lists movies from CineStream OTT
2. *List Other Source Movies*: Gathers' from other OTT platforms
    1. Netflix Service – Asynchronous
    2. Prime Service – Asynchronous
3. *Consolidate Movies*: makes requests to the Above microservices - Not ideal – Unnecessary
4. *Rent Movies*: Synchronous - requests to the Other Movies Services

CineStream and Other Movie Management

- Manage Movies Service – Within our OTT
  - Name
  - Language
- Other Movies Service – Scalable
  - Name
  - Language
  - Source: 1/2/3 OR prime/Netflix/
  - Cost

User Authentication Service

Database

- User Table
  - User ID
  - Email
  - Language preference
  - Days Left

- Authentication – Synchronous : Validates User in DB

User Activity Management Service

Database

- Activity Table
  - User ID
  - Movie ID
  - Rating: -1, 0, 1

- Capture User Actions - Asynchronous

Movie Recommendation Service - Async

- UID
- MID
- Ranking

Both intelligent systems interact with User Activity Management Microservice to provide Movie and cost recommendations.

Cost Recommendation Service – Sync

- UID
- Price

Intelligence Module – Price Recommendation

Database

- Price Table
  - User ID
  - Price

- Price Suggestion
  - Updates prices / User - Asynchronous post
  - Get price – Synchronous – Used by Payment service

Payment Microservice

Database: NA

- Payment – Synchronous Post
  - 1 month – 30 days
  - 1 year – 365 days
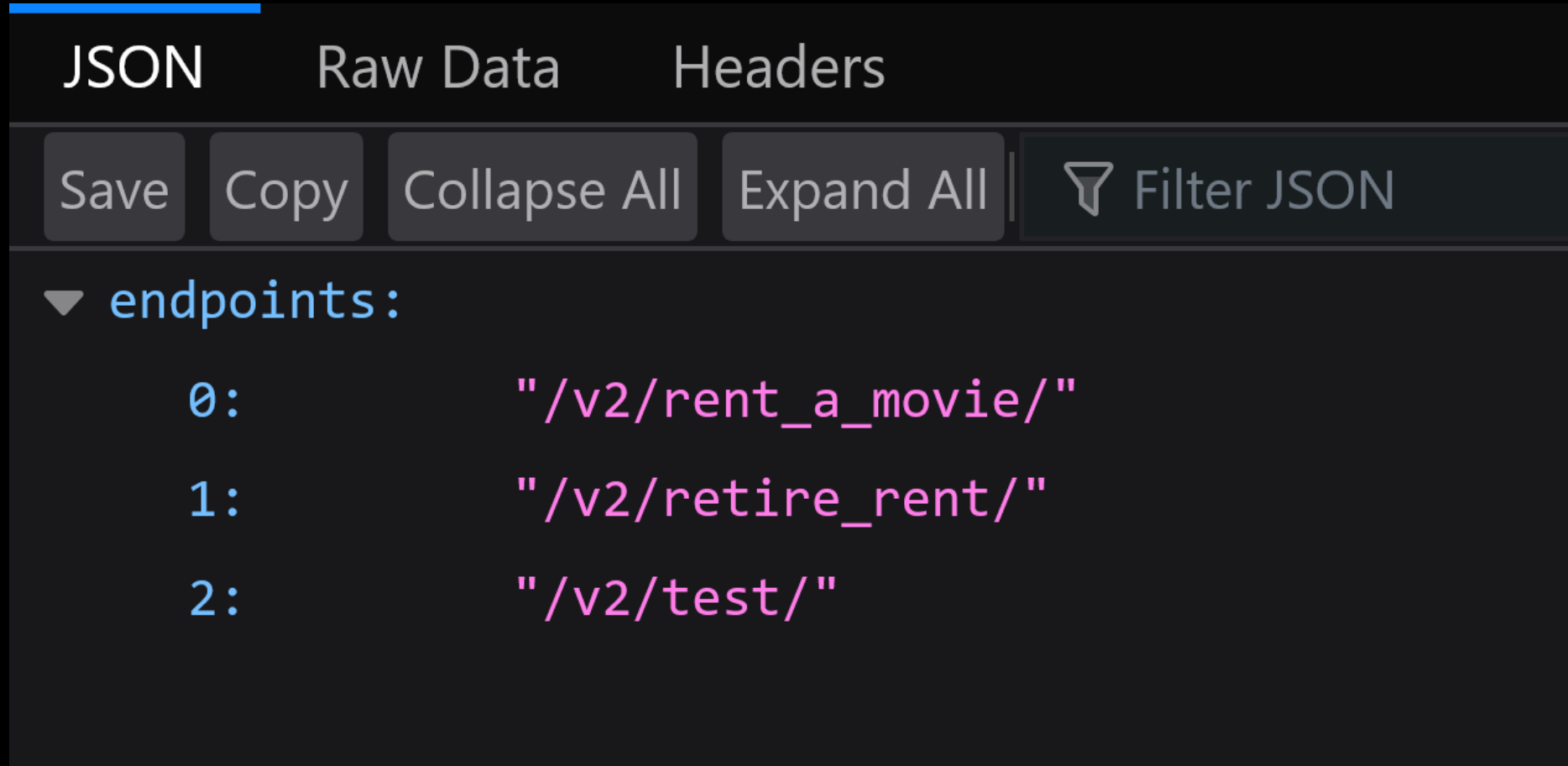- Routes:
  - Subscribe Page

Inputs from:
- User Module: To Check User
- Intelligence Module: to check for user price

Stack

- Backend: Python
- Microservice Stack:
  - FastAPI – Rest APIs
- Database: SQLite/JSON

API Gateway Implementation - Incomplete

JSON   Raw Data   Headers

Save   Copy   Collapse All   Expand All   🔽 Filter JSON

```
▼ endpoints:
    0:          "/v2/rent_a_movie/"
    1:          "/v2/retire_rent/"
    2:          "/v2/test/"
```