

# LDC

Learn, Dance, Challenge

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00

Intro

# Do You Like Dance?



# 01 Motive

## Uprising Dance Challenges

01. Uprising Dance Challenges

02. Dance Takes Time to Learn

03. Are There Any Help?



Dance Collaboration (Instagram)

Dance Challenge (YouTube)



# 01 Motive

## Dance Takes Time To Learn

01. Uprising Dance Challenges

02. Dance Takes Time to Learn

03. Are There Any Help?



Watch  
→  
and  
Practice



Hard to Practice  
on their Own



# 01 Motive

01. Uprising Dance Challenges

02. Dance Takes Time to Learn

03. Are There Any Help?

## Are There Any Help to Get From?

Just Dance



- Game in which points are scored on action given.
- It shall be carried out with the co



CE Edition



- on between dancer and user without a
- ch movement by themselves

# Main Concept

## **Learn Dance Challenge!**

- Help you learn dances
- Platform to participate in challenges

02

Features  
&  
Scenario

# Main Features

1. Platform Implementation
  - Pick video to learn, Share videos, Create challenges
2. Teach User Dancing
3. Original Video Analysis
4. Grade User's Dance

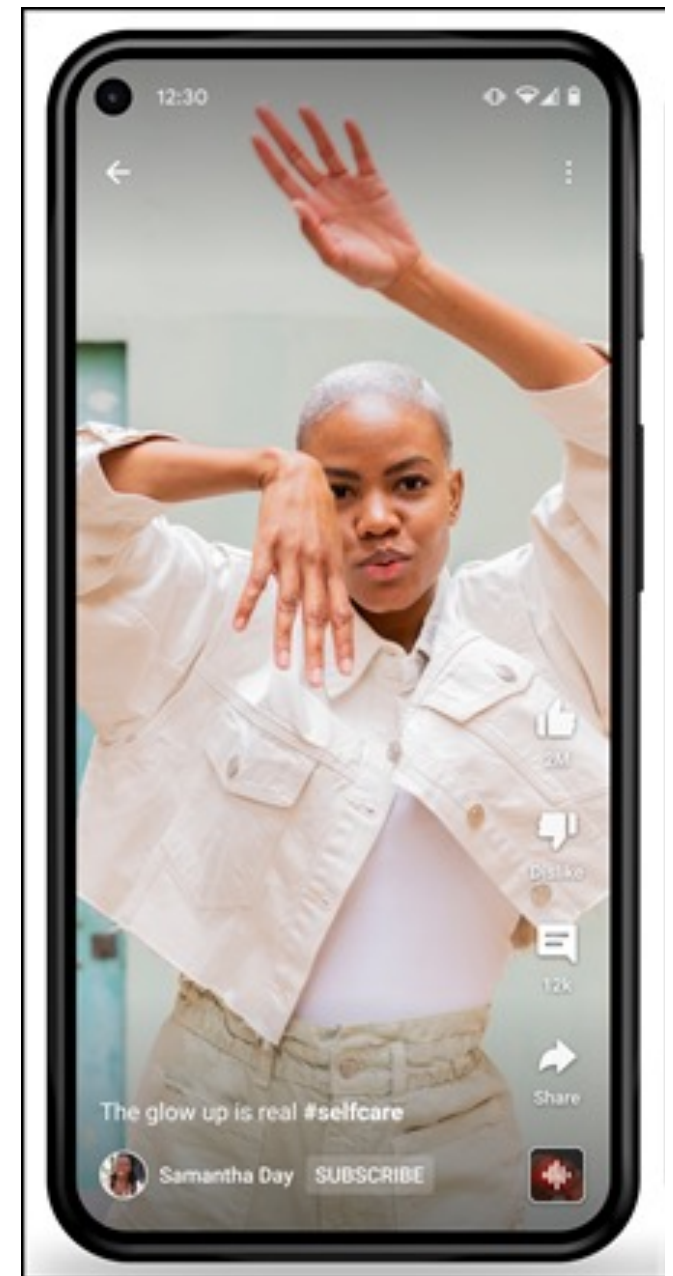


# 01 Scenario

## Platform Experience



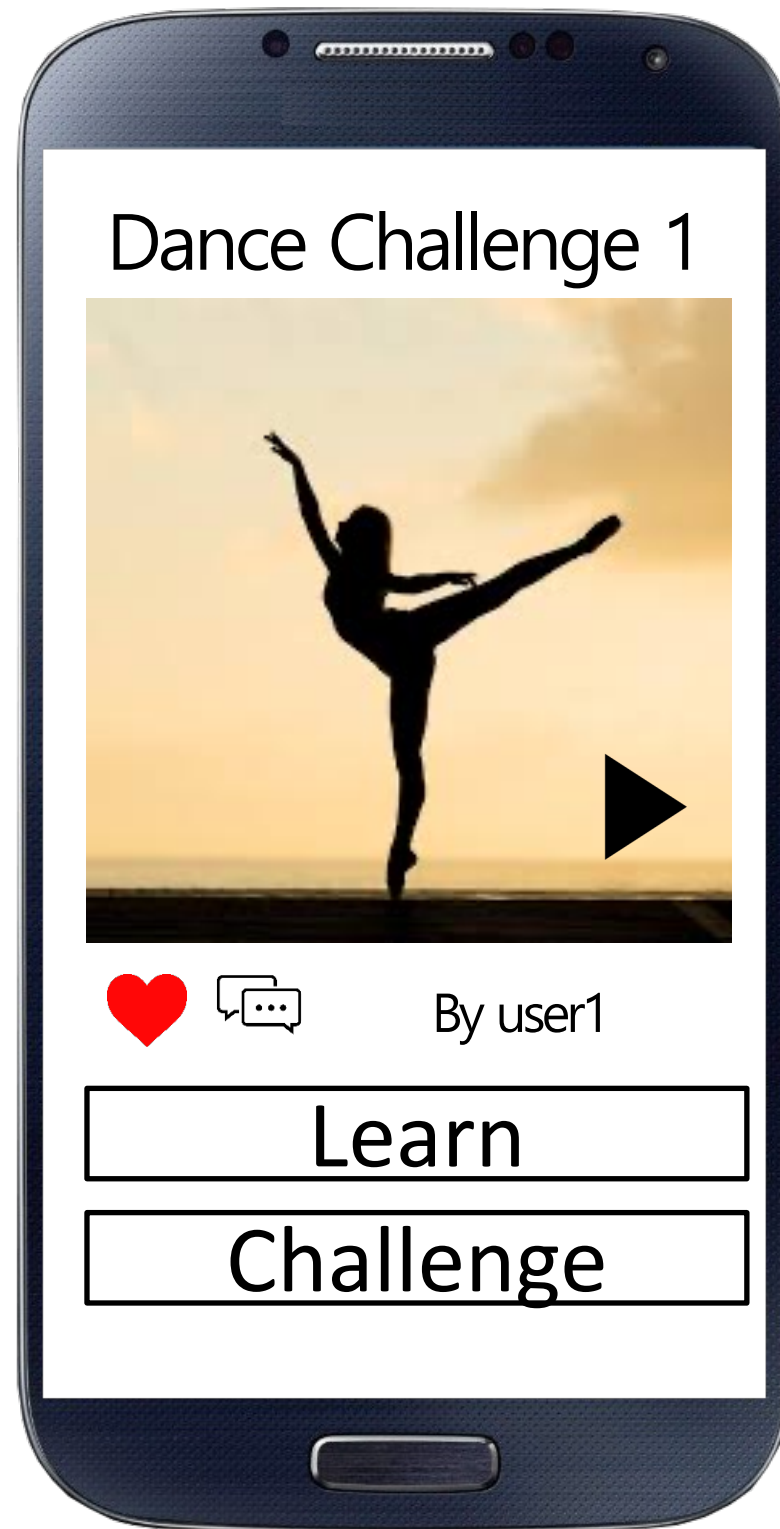
Choose a Video to Learn



See list of videos, Challenges.

## 02 Scenario

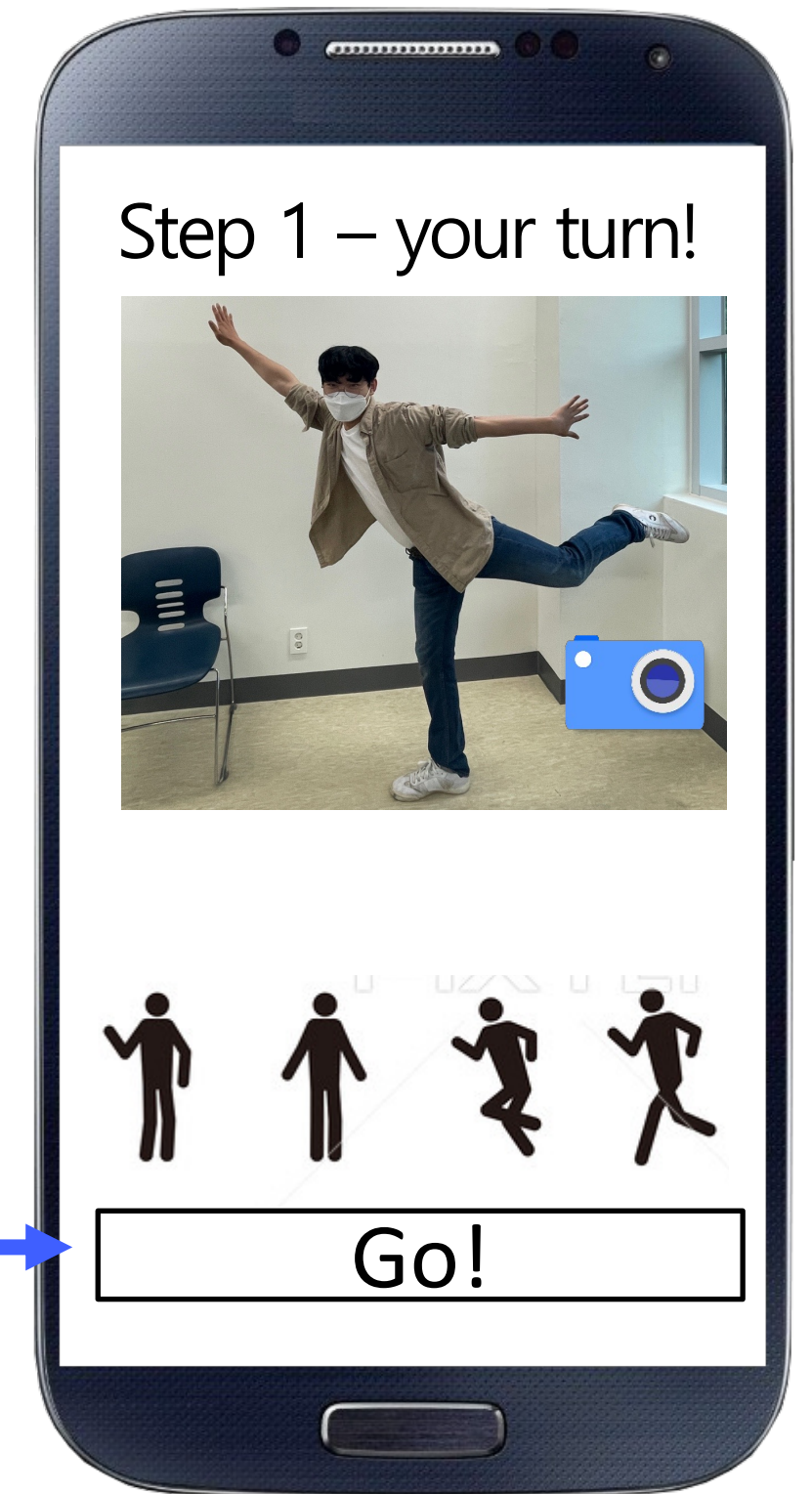
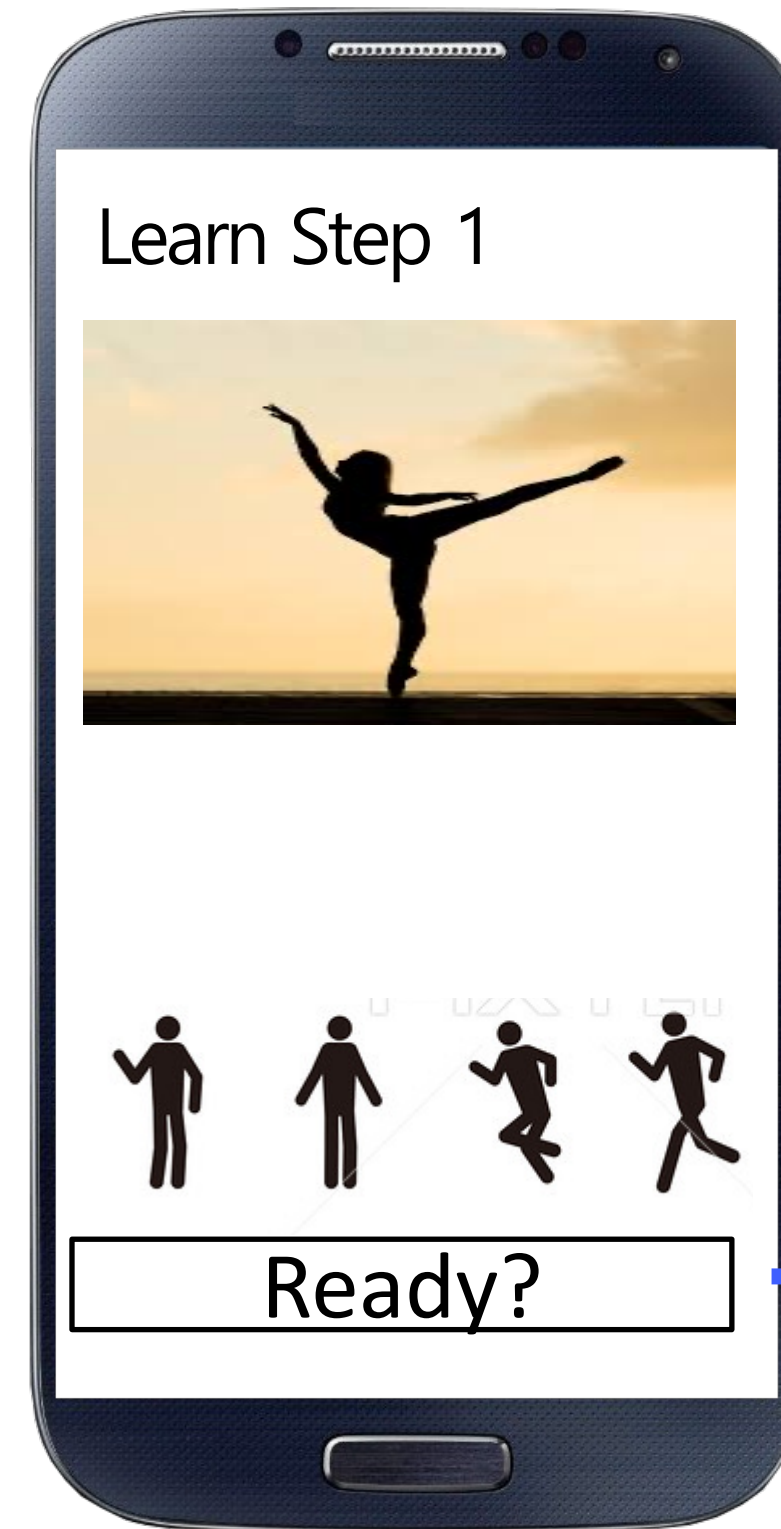
# Learning Dances



Learn



- Show Steps of how to dance Sequentially
- Then user dances in front of camera.





## 02 Scenario

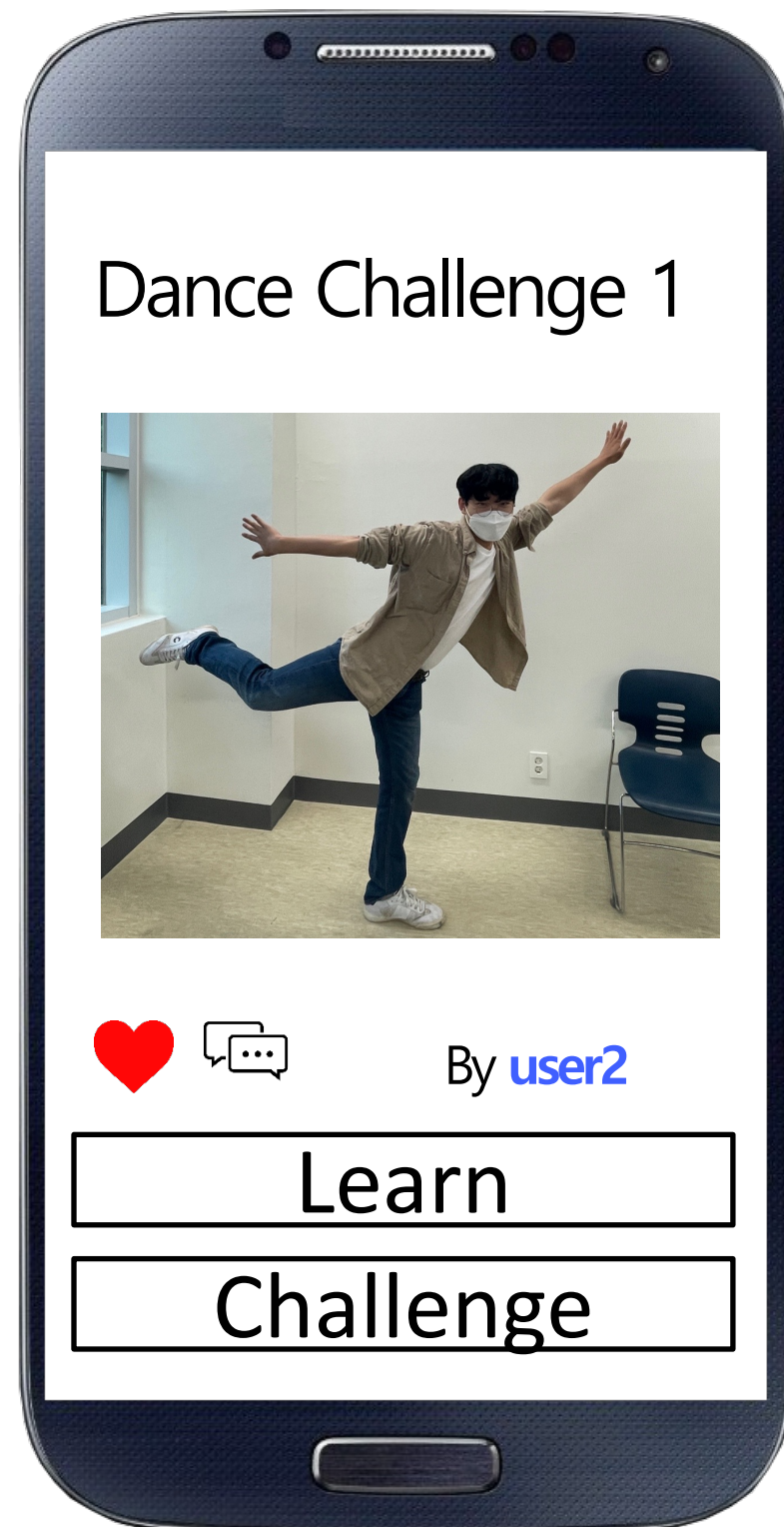
# Indicate the wrong section





# 03 Scenario

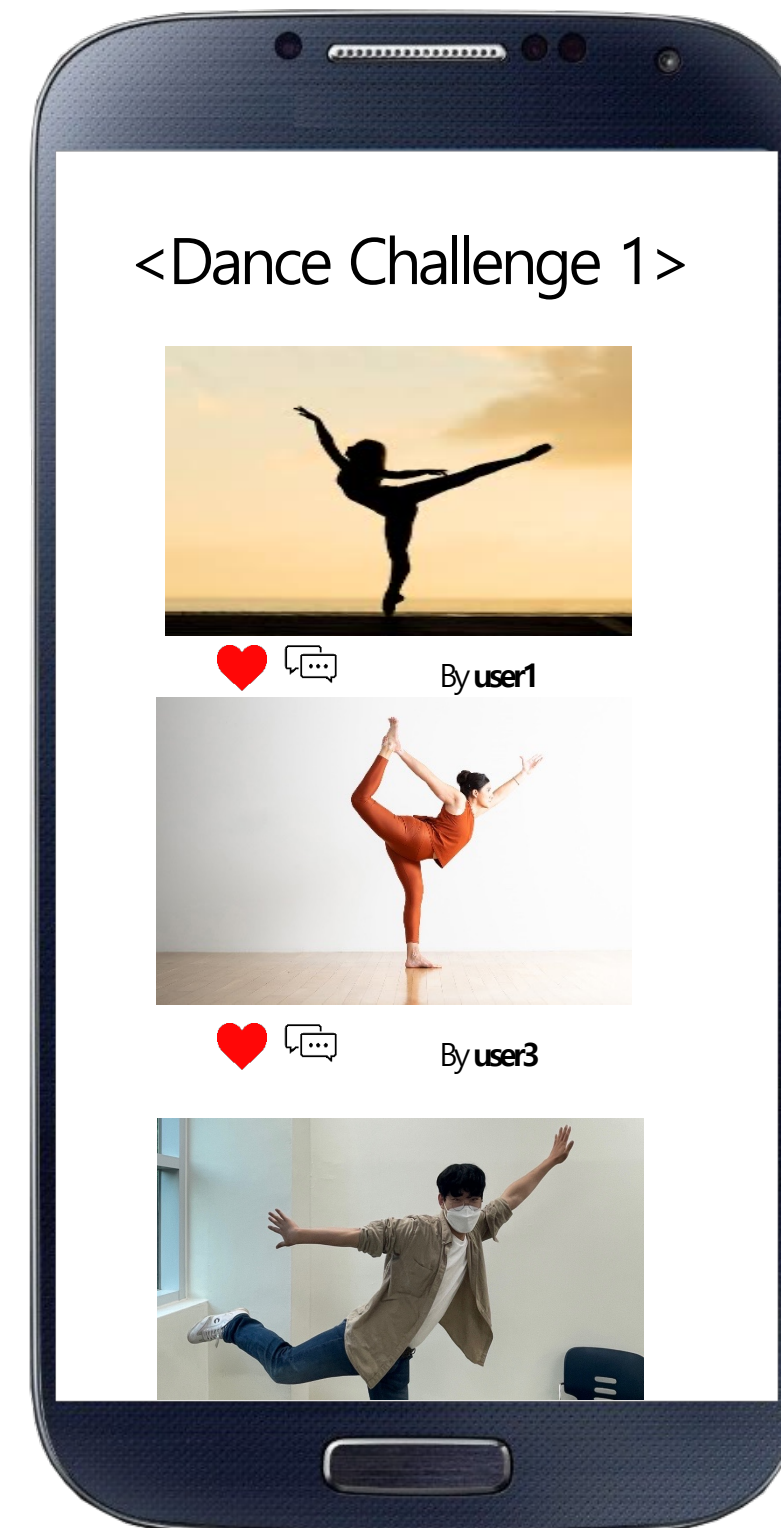
## Challenge!



See more  
same challenge  
videos



- You can upload your dance video.
- Same challenge videos are tagged together



- Videos can be sorted as hottest (most liked), recently added.
- Hottest Videos are ranked.

04



Development  
Plans

# Main Features

1. Platform Implementation
  - Sharing dance video between users, creating challenges
2. Teach User Dancing
3. Analyze Original Video
4. Grade User's Video



# 01 Development

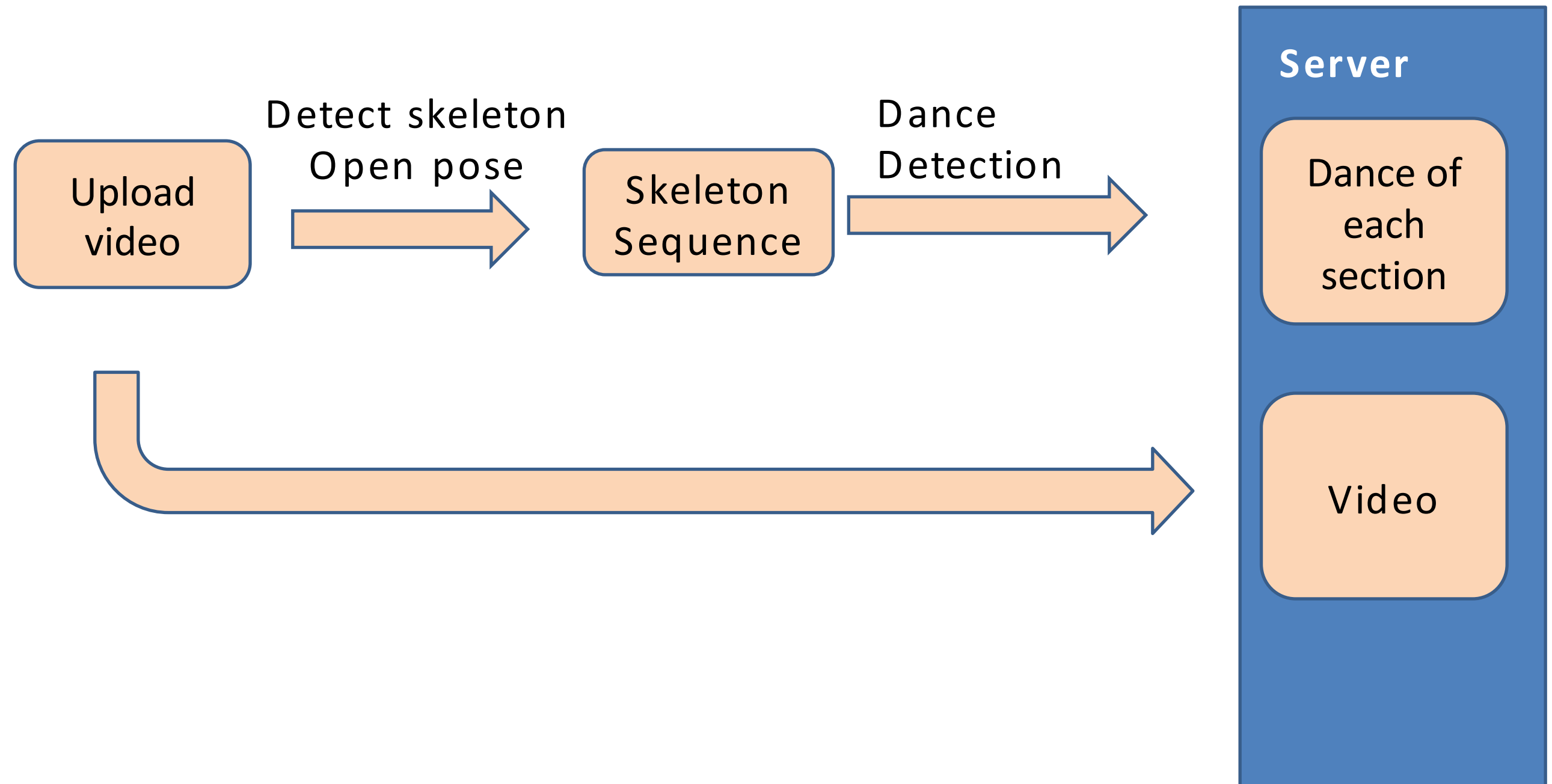
## Analyze Original Video

01. Analyze Original Video

02. Grade User's Dance

03. Open Pose

04. Dance Detection



# 01 Development

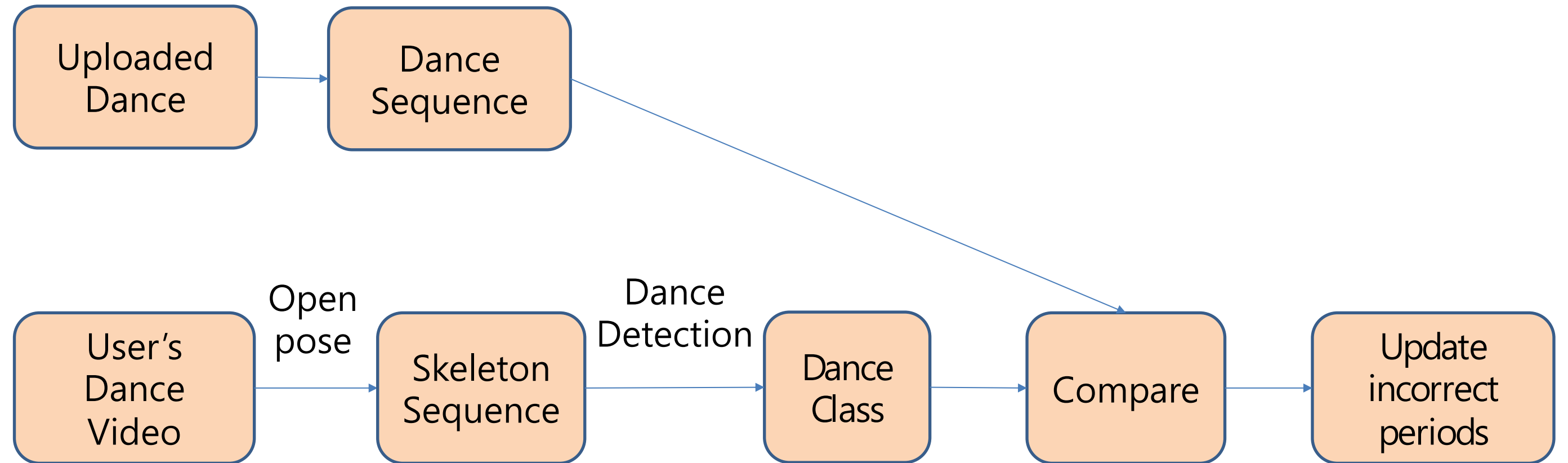
## Grade User's Video

01. Analyze Original Video

02. Grade User's Dance

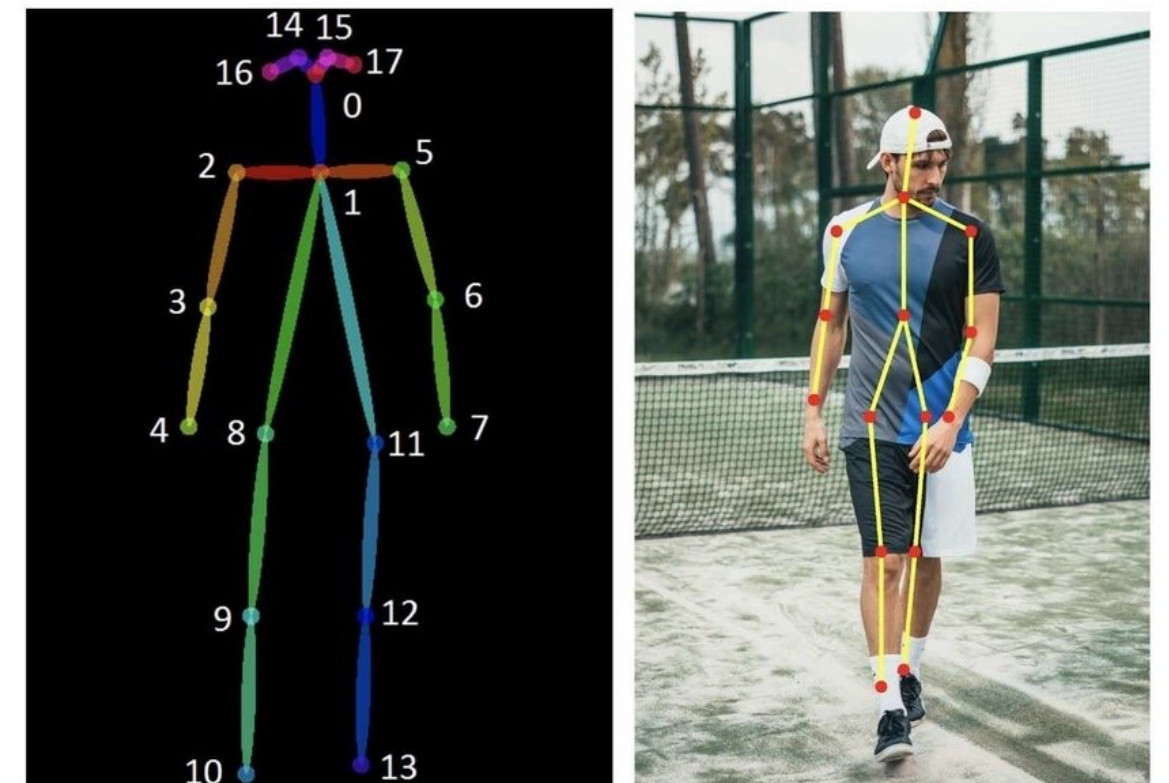
03. Open Pose

04. Dance Detection



## Open Pose

- A real-time human pose detection library
- Deep learning convolution neural network extracts the feature points of the human body, hand, and face
- Data extracted only from images and photos.

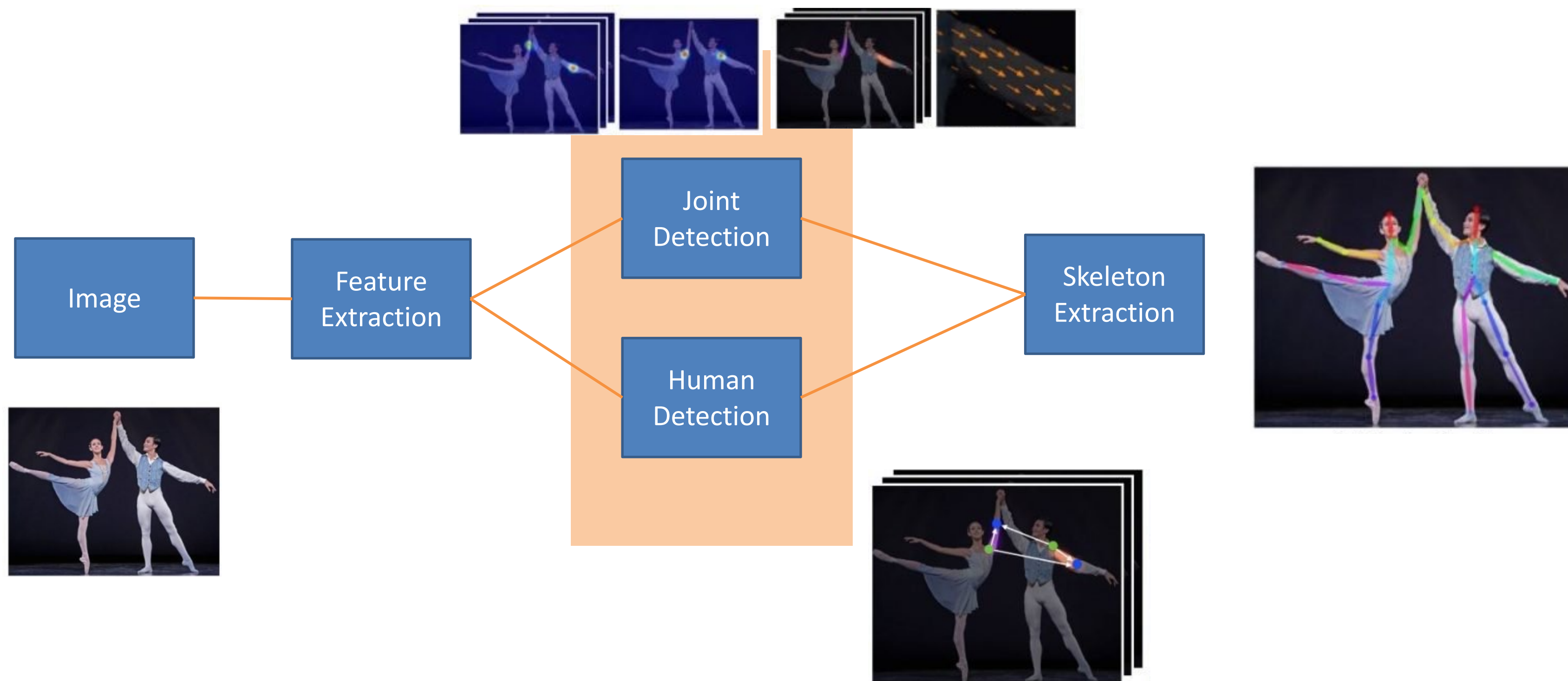




# 02

Core Technology

## Open Pose



01. Analyze Original Video

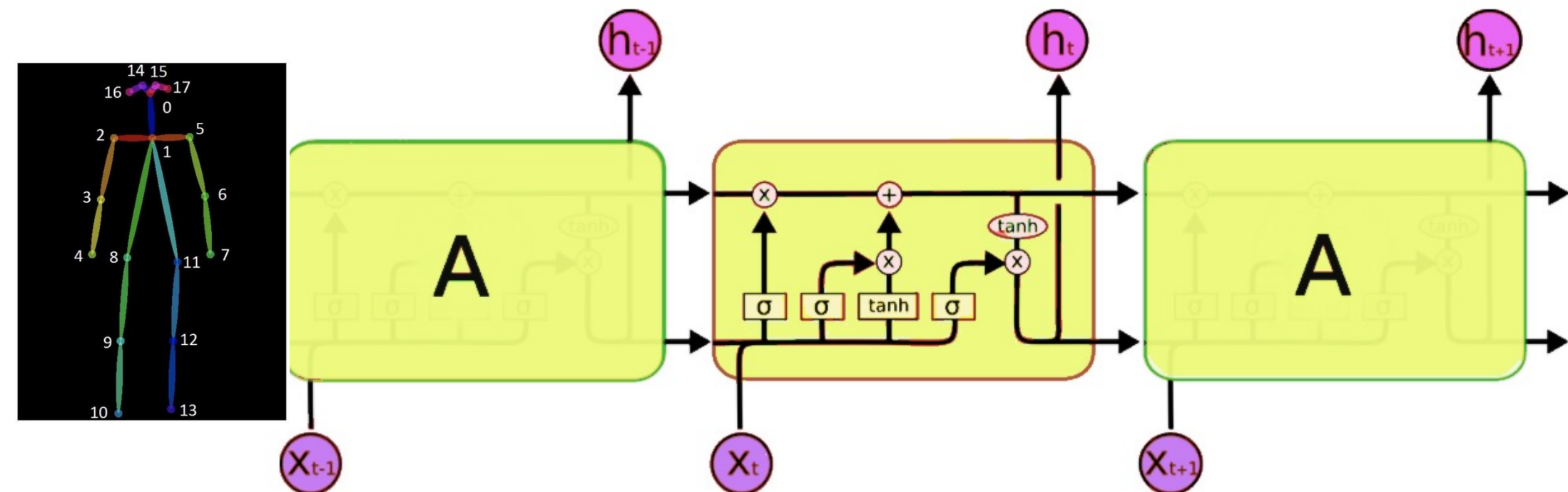
02. Grade User's Dance

03. Open Pose

04. Dance Detection

## Dance Detection - LSTM

- Long Short-Term Memory
- Recurrent Neural Network(RNN) capable of learning order dependence in sequence prediction problems.



# 05 | Role & Plans



# 01 ROLE



김성훈

Machine Learning  
Open Pose



윤설원

Server  
DataBase



이지민

Client  
React Native



장윤영

Machine Learning  
LSTM

# 02 Plan

## Timeline

### 21' Summer



- Data Acquisition
- Study Technology
- Train ML Models

### 21' Second Semester



- Train ML Models
- Server Development
- Client Development
- Platform Integration  
(Server-Client  
Networking)

### 22' Winter



- Evaluate ML Models
- Database  
Implementation
- System Integration  
(Platform – ML)

### 22' First Semester



- System Testing
- Documentation
- Final Presentation

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Thank you for listening!

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