

 Group 12

Frame Labeling Application **FLA**

**Anna Mrteyan
Erik Muradyan
Yanek Hayrapetyan**



INTRODUCTION

What is a “Labeling Application”?

What is the aim of our application?

What technology did we use for it?

Proposed OBJECTIVES

To make the labeling process easier and the setup of the application itself easier

Object Detection

Segmentation

Labeling for Keypoint detection

IMAGE/VIDEO LOADING

Key Features

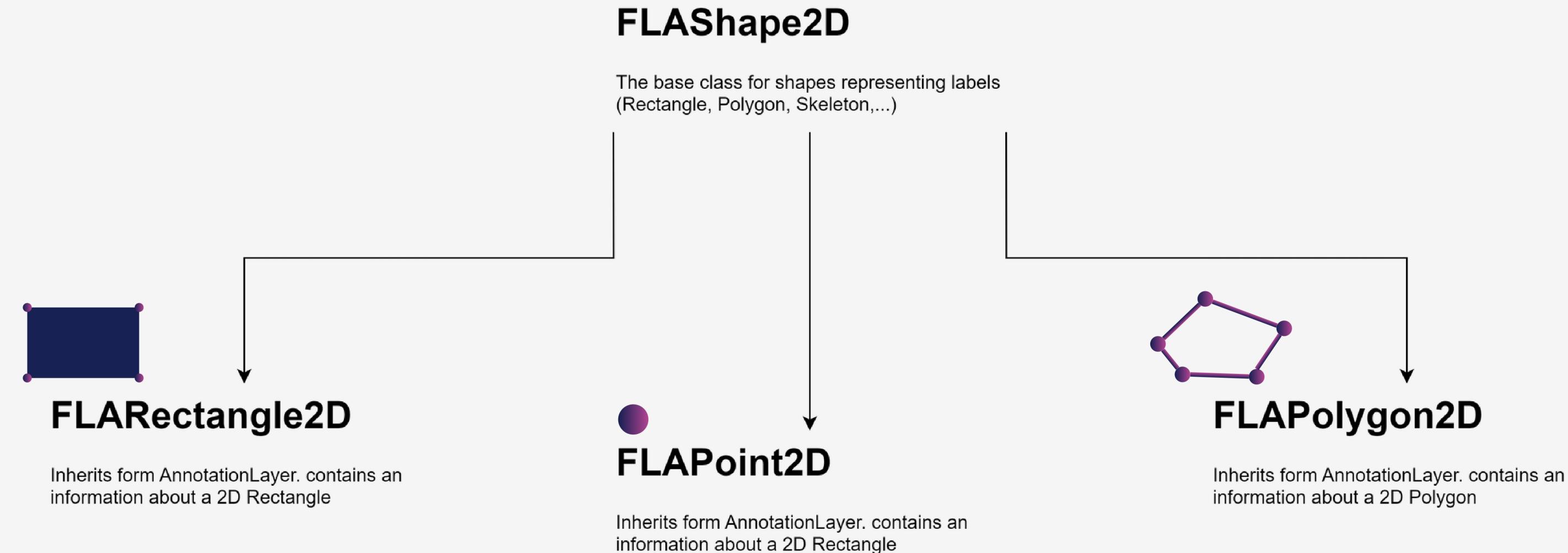
1. EFFICIENT MEDIA HANDLING

2. STREAMLINED INPUT SUPPORT

3. REAL-TIME RESPONSIVENESS

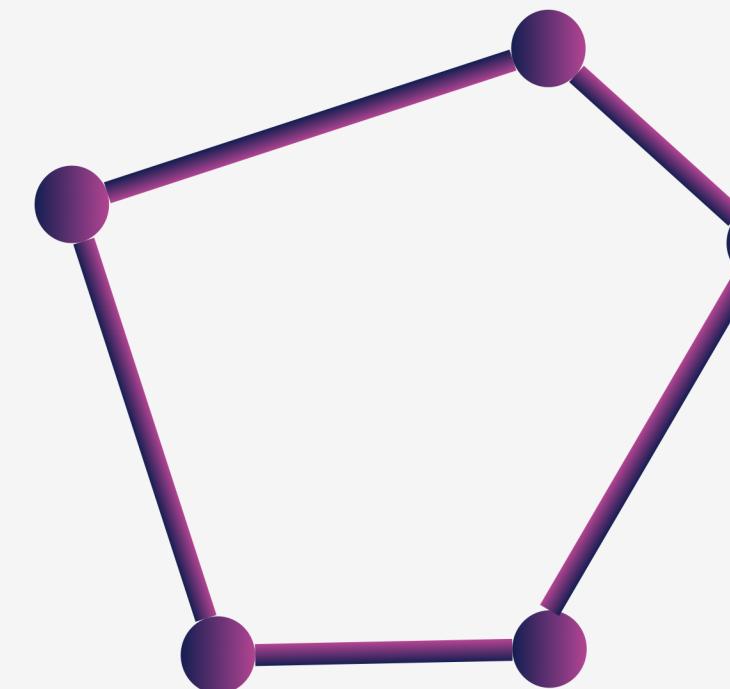
4. RELIABLE OUTPUT MANAGEMENT

The Class Hierarchy





Styling



Label:

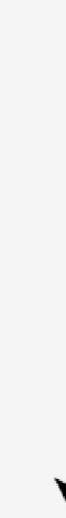
- className: Window
- classNumber: 0

Style:

- strokewidth: 5
- fillColor: Transparent
- strokeColor: Purple

FLAStyle

Contains the style details of an element



FLALabel

Contains the style and class(annotation) details of an element



Labeled Shapes

FLARectangle2D

Inherits form AnnotationLayer. contains an information about a 2D Rectangle



FLALabeledRectangle

Inherits from FLAPoint2D has additional Label field

FLAPoint2D

Inherits form AnnotationLayer. contains an information about a 2D Rectangle

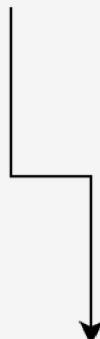


FLALabeledPoint

Inherits from FLAPoint2D has additional Label field

FLAPolygon2D

Inherits form AnnotationLayer. contains an information about a 2D Polygon



FLALabeledPolygon

Inherits from FLAPoint2D has additional Label field

● Click Handlers

Select

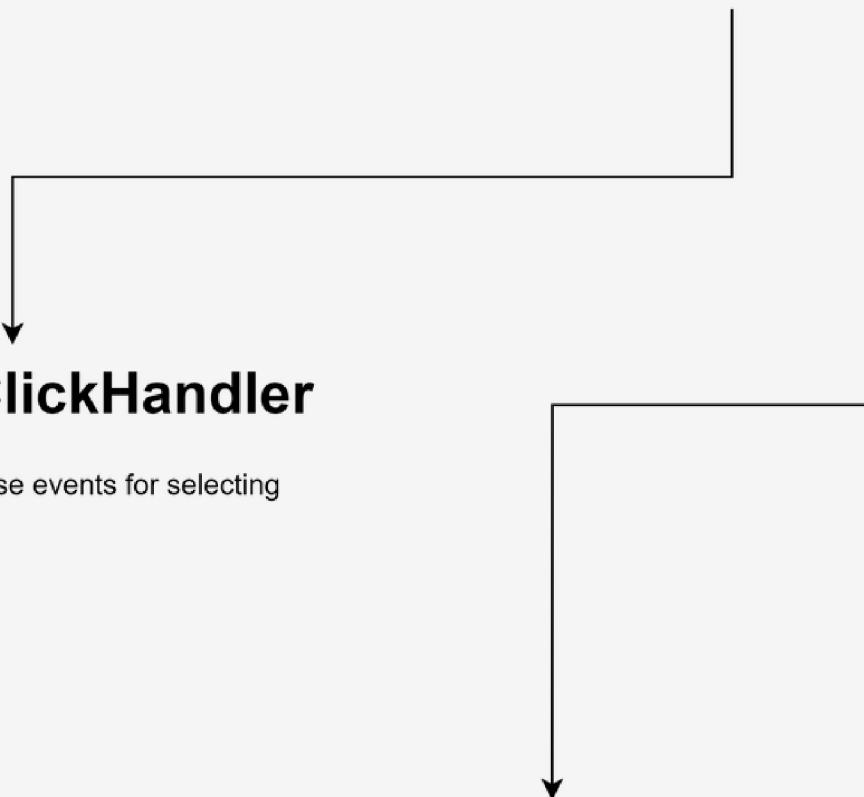
Point

Rectangle

Polygon

FLASelectClickHandler

A class for handling mouse events for selecting created elements



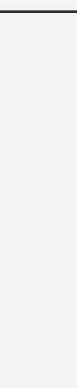
FLAClickHandler

The super class for classes aimed for handling the mouse events on the canvas



FLAPolygonClickHandler

The super class for classes aimed for handling the mouse events on the canvas



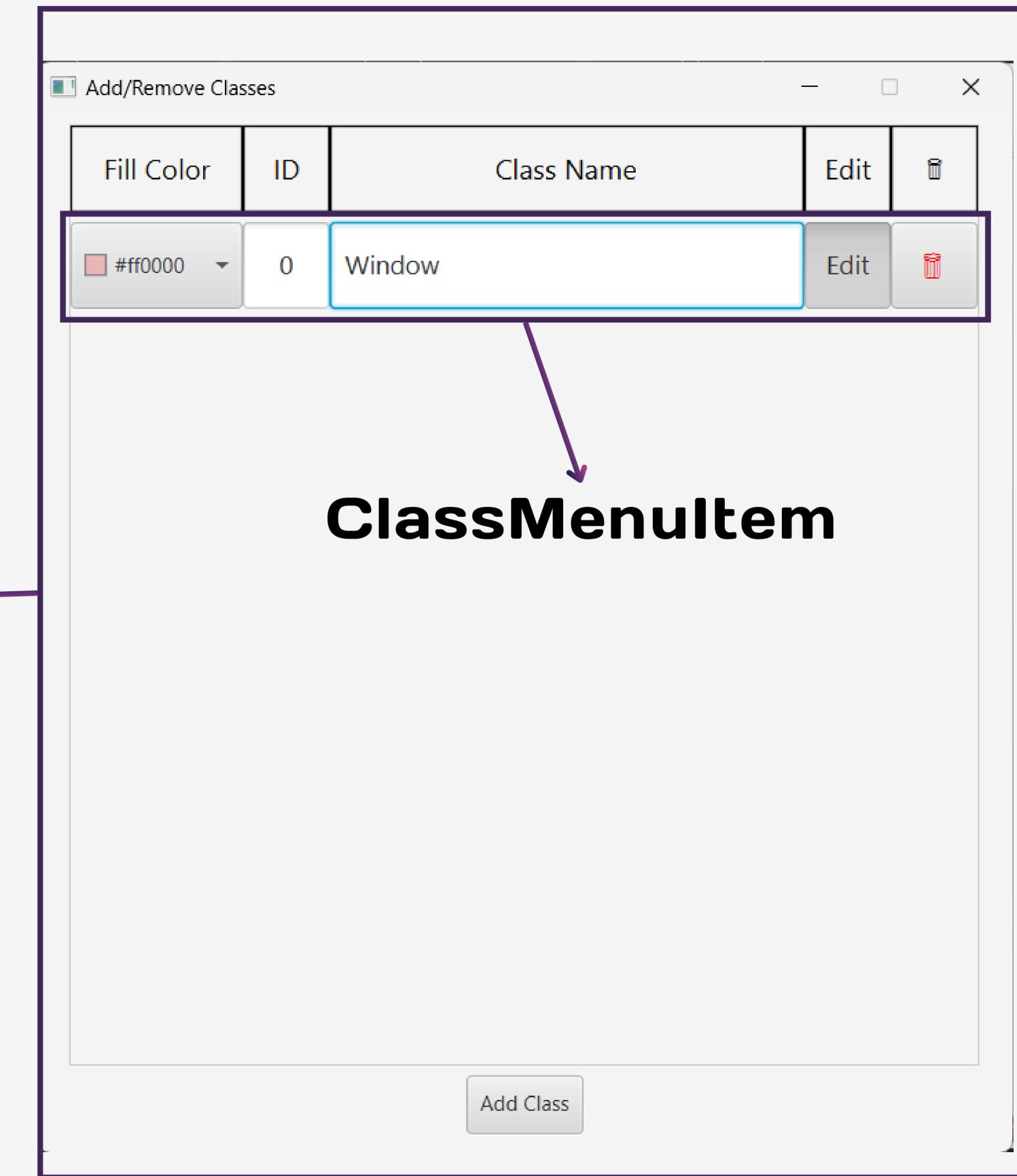
FLAPointClickHandler

A class for handling mouse events for creating Point annotations

A class for handling mouse events for creating Rectangular annotations

Class Editing Menu

Class Menu





Labeling In
Action

SAVING THE RESULTS

Images

CTRL+S

image_name.jpg/png image_name.json

Videos

CTRL+S

↓
Video_Name_Folder

image_name.jpg/png image_name.json

For Each
Frame

JSON File Structure

```
json
{
  image: image/file/path.jpg
  width: #####
  height: #####
  points: [{x:##, y:##}, {x:##, y##}, ...]
  rectangles: [{xMin:, yMin:, xMax:, yMax}, ...]
  polygons: [...]
```

CONCLUSION

MODULARITY AS A DEVELOPMENT FEATURE

EFFICIENT LABELING BY DATA ANNOTATION

ENHANCEMENT OF WORKFLOW EFFICIENCY



THANK YOU!