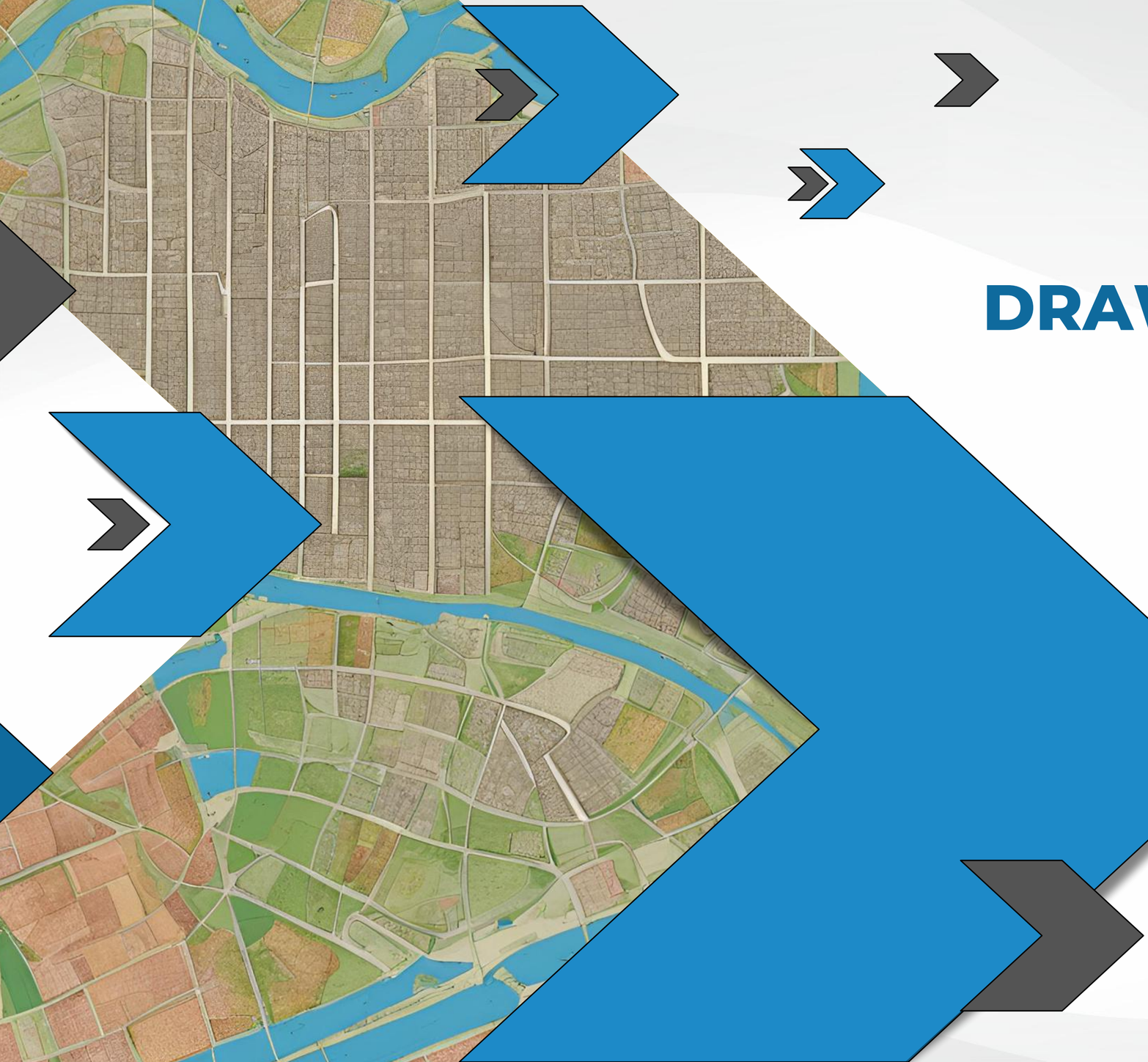


LAND PARCEL

DRAWING AND CUTTING TOOL WITH UTM COORDINATES USING JAVA

GEOM 319

Baral Pragyan 07
Kharel Shisir 27
Khatiwada Rishav 29

LAND PARCEL

A parcel is a defined piece of land used for ownership, development, or administrative purposes, crucial in land management, real estate, and urban planning, and typically represented by polygons with coordinates in a specific reference system.

OBJECTIVE

Efficient Parcel Management:

To Facilitate easy creation and modification of land parcels using user input coordinates.

Accurate Land Division

To ensure precise subdivision of parcels based on defined cutting lines and intersection calculations.

OVERVIEW OF PROGRAM

GENERAL OVERVIEW

The Program contains Java Swing application for drawing and cutting parcels.
Users input coordinates, draw polygons, and cut them using mouse interaction.

COMPONENTS OF PROGRAM

Drawing Panel which has Visual representation and interaction with parcels.
Control Panel which has Buttons for generating, cutting, and loading polygons.

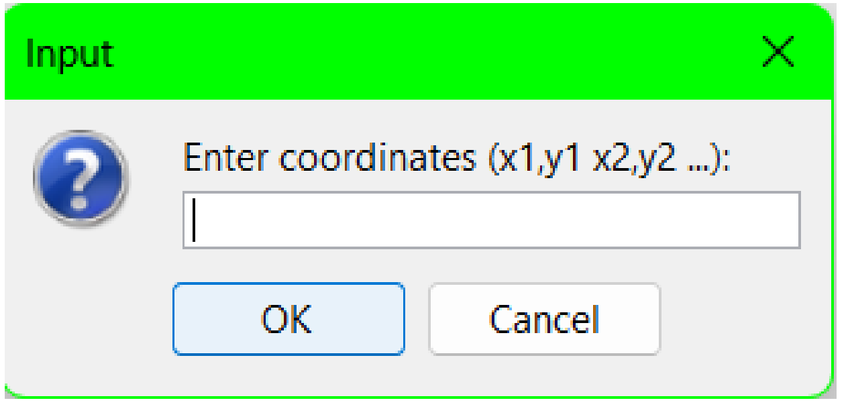
FUNCTIONALITY OF PROGRAM

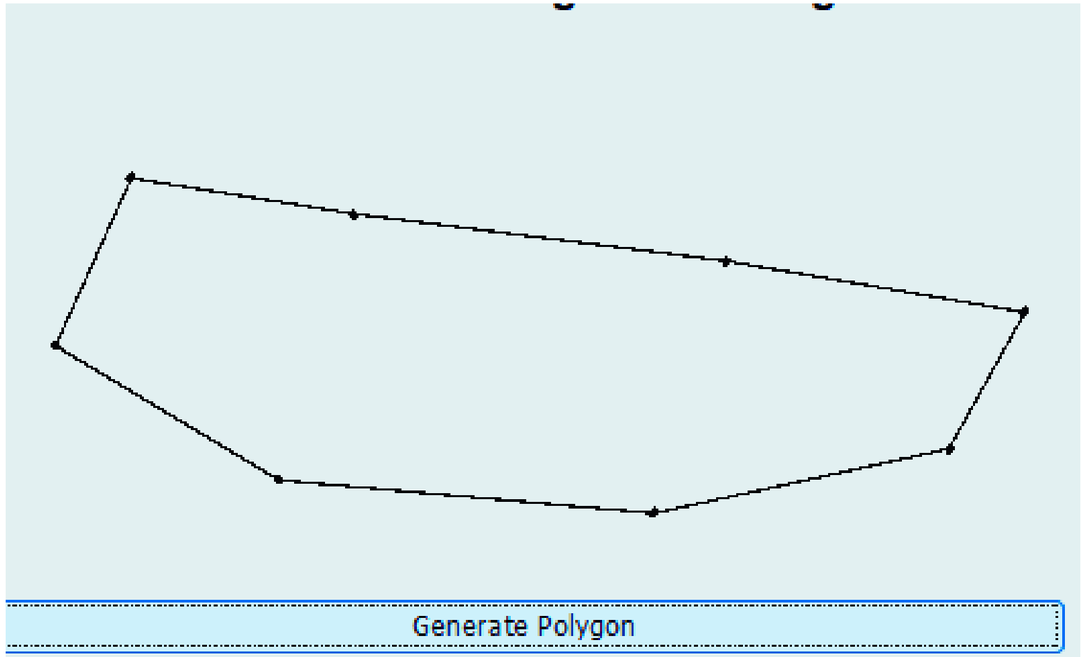
- Generate Polygon: Takes user input of coordinates and draws the original parcel.
- Cut Polygon: Allows defining a cutting line to divide parcels.
- Save and Load: Stores polygon coordinates in files for future use

STEPS TO USE FUNCTIONALITY OF PROGRAM

Step 1: Input Coordinates

Click "Generate Polygon" to draw the initial parcel based on input coordinates.
Users input coordinates (x, y) within specified ranges (e.g., 350000 to 650000 along X-axis, 2900000 to 3400000 along Y-axis).





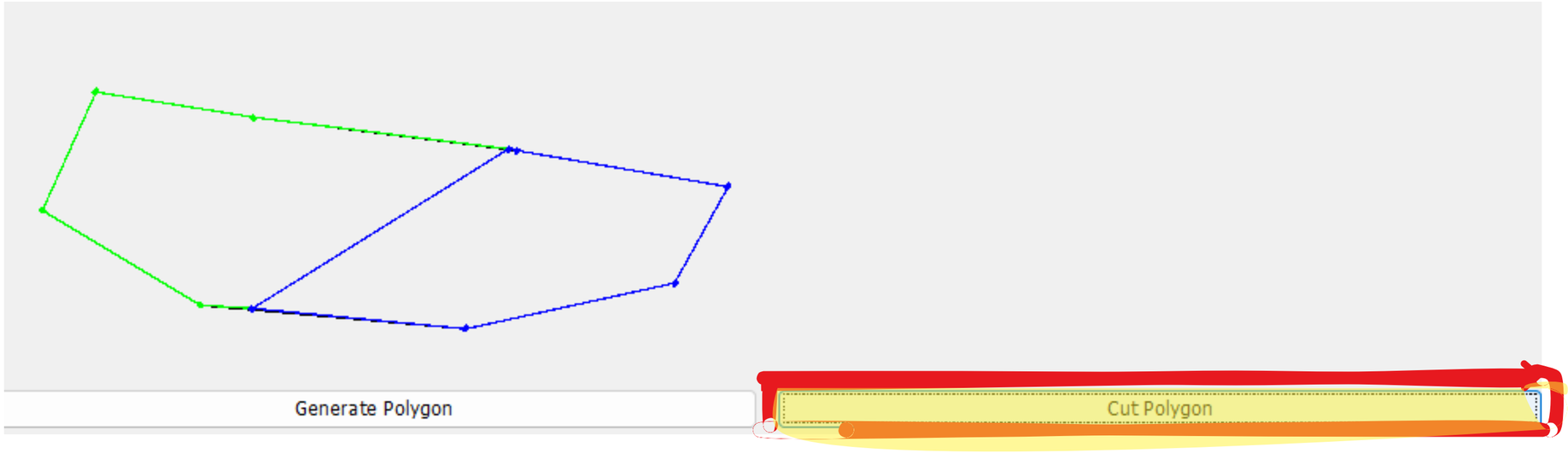
Step 2: Polygon Drawn

Coordinates are downscaled to fit the drawing panel.

STEPS TO USE FUNCTIONALITY OF PROGRAM

Step 3: Cut Parcel

- Click "Cut Polygon" to activate cutting mode.
- Define a cutting line across parcel by clicking on the drawing panel to divide the parcel into two sub-parcels.



Step 4: Save and Load Coordinates

Use buttons to save generated polygons or load previously saved ones from files.
File locations are in the specified "outputs" directory.

STEPS TO USE FUNCTIONALITY OF PROGRAM

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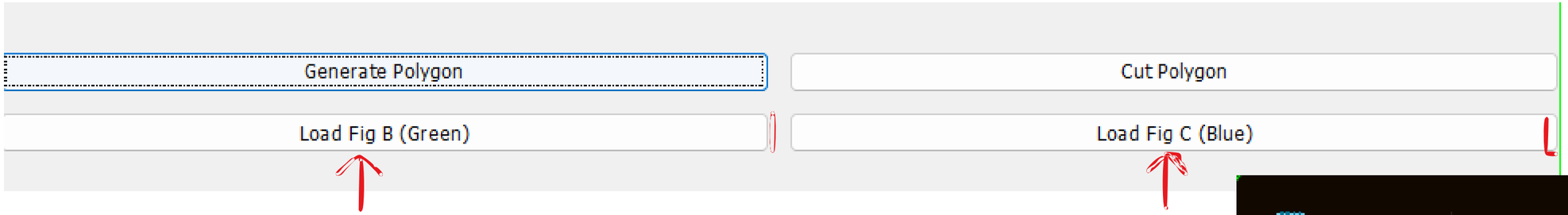

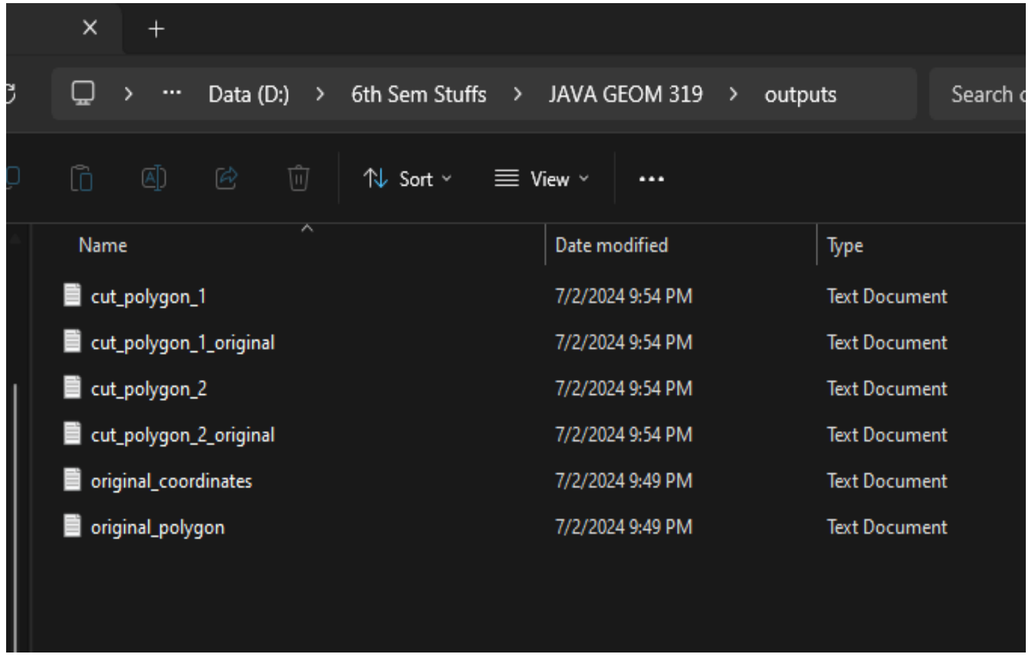

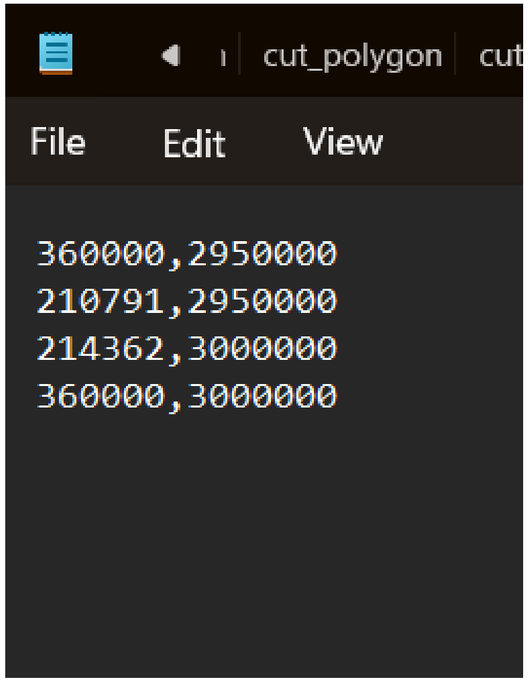

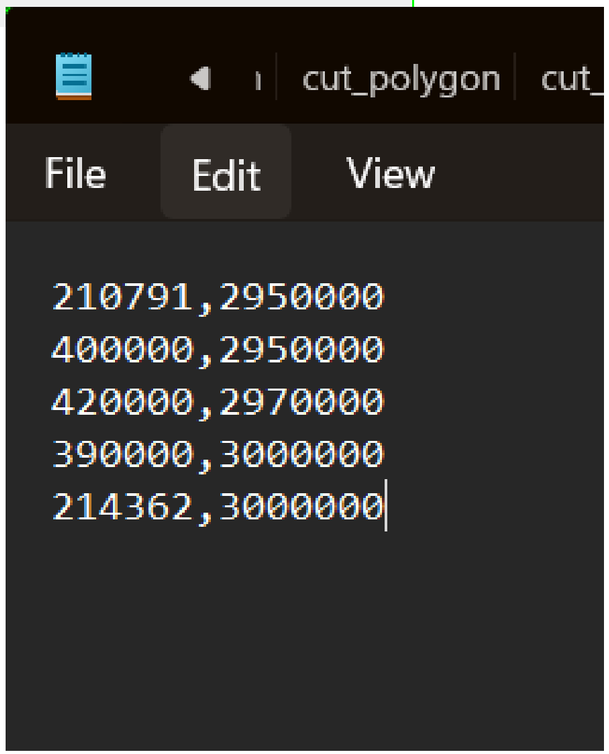


LET'S MOVE
INTO CODE