ECONOMIC COOPERATION ORAGANIZATION (ECO)

TRAINING COURSE

The National Cartographic Center of Iran with the support of ECO Secretariat holds a training course on:

The Current Technologies and Trends in Various Levels of Spatial Data Infrastructure (SDI)

23-24 September 2024

National Cartographic Center of Iran

Table Joining Service (TJS) Implementation

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Problem Definition

Ministry of roads & Urban development

id	attr1	attr2	attr3	…..

Ministry of ICT

id	attr1	attr2	attr3	…..

Municipality and Rural administrations

id	attr1	attr2	attr3	…..

Statistical DB

id	attr1	attr2	attr3	…..

MENTAK DB

id	attr1	attr2	attr3	…..

Problem Definition

id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..	id	attr1	attr2	attr3	…..

Introduction

- The TJS service represents one of the OGC standards, as it offers a reliable method for establishing connections between statistical information and spatial features.

- In the TJS system, instead of repeatedly republishing spatial information each time a new statistical attribute is added to the data, the spatial information is published only once. Moreover, any change in the statistical information is seamlessly incorporated into the spatial information through the web service, ensuring its dynamic display.

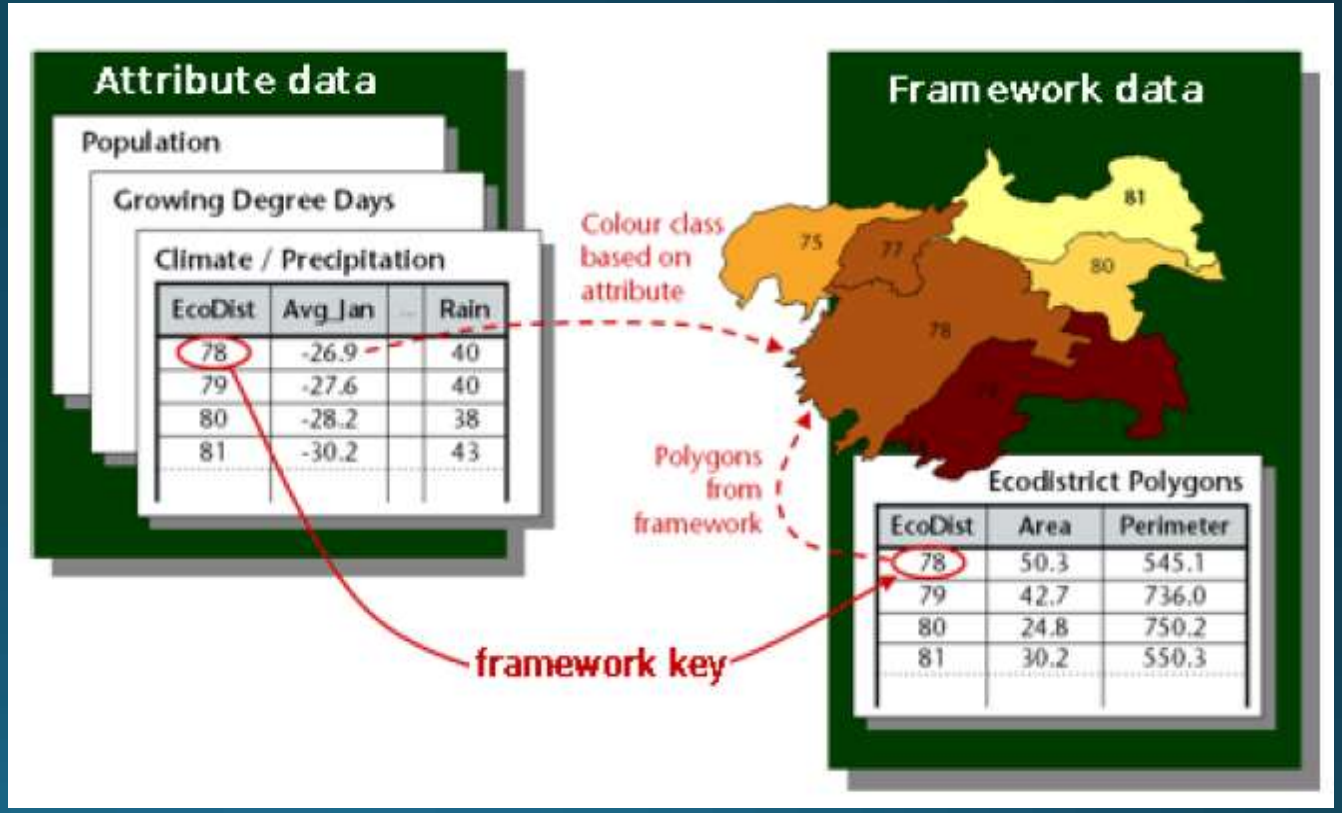
Acknowledgment

- Thanks to Ms. Sharon Chawanji.

- She implemented the TJS service using the Flask framework in her thesis and shared with us details of what she had done.

Implementation

- The prerequisite for implementing the TJS service is the existence of a unique field in both statistical and spatial datasets.



Implementation

- We used Python programming language and Django framework to implement TJS.

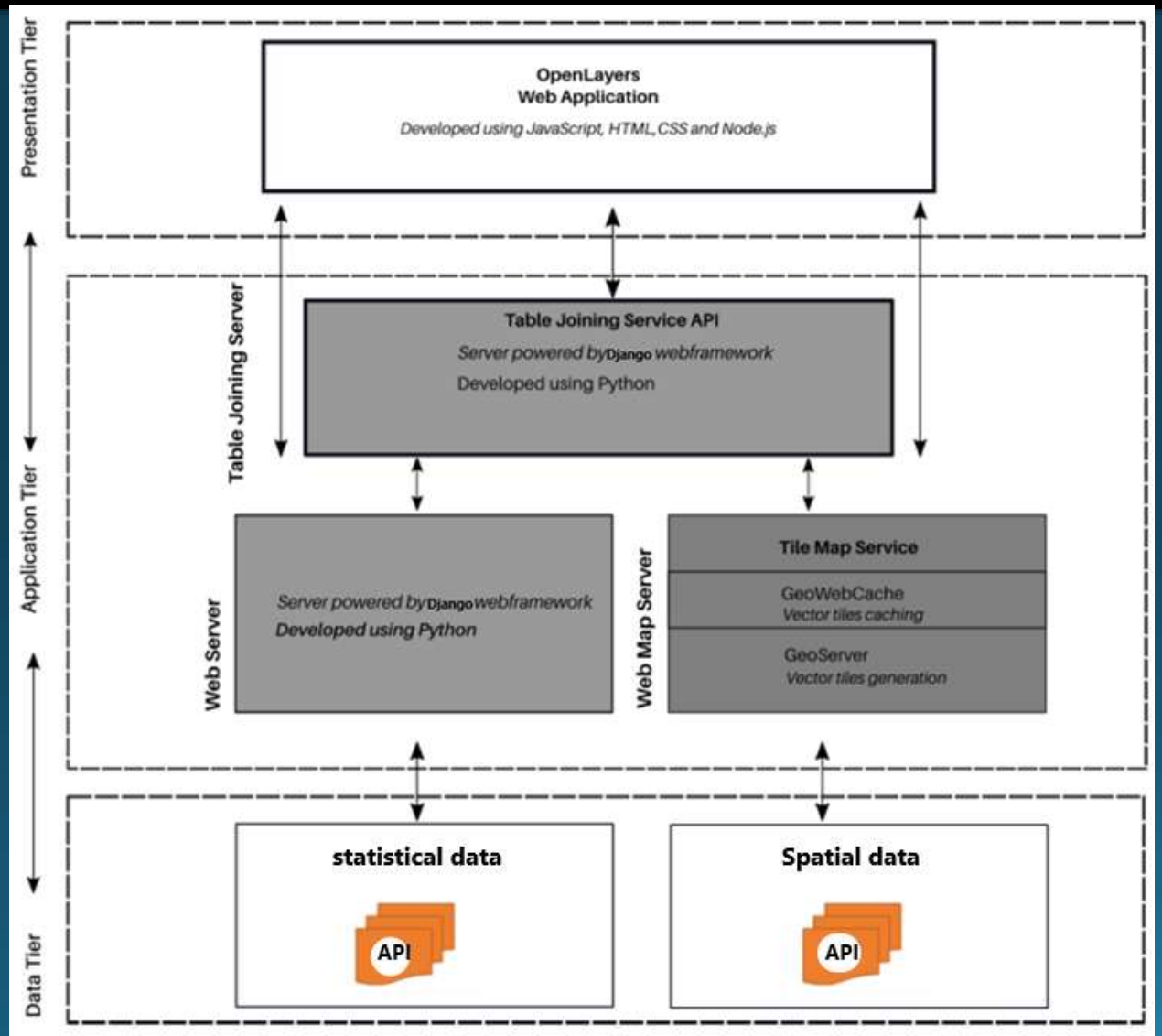
- Django has a structured, cohesive, and predetermined framework. Therefore, it provides excellent security, high development speed, powerfulness, and simplicity. It is great for large and scalable projects.

Implementation

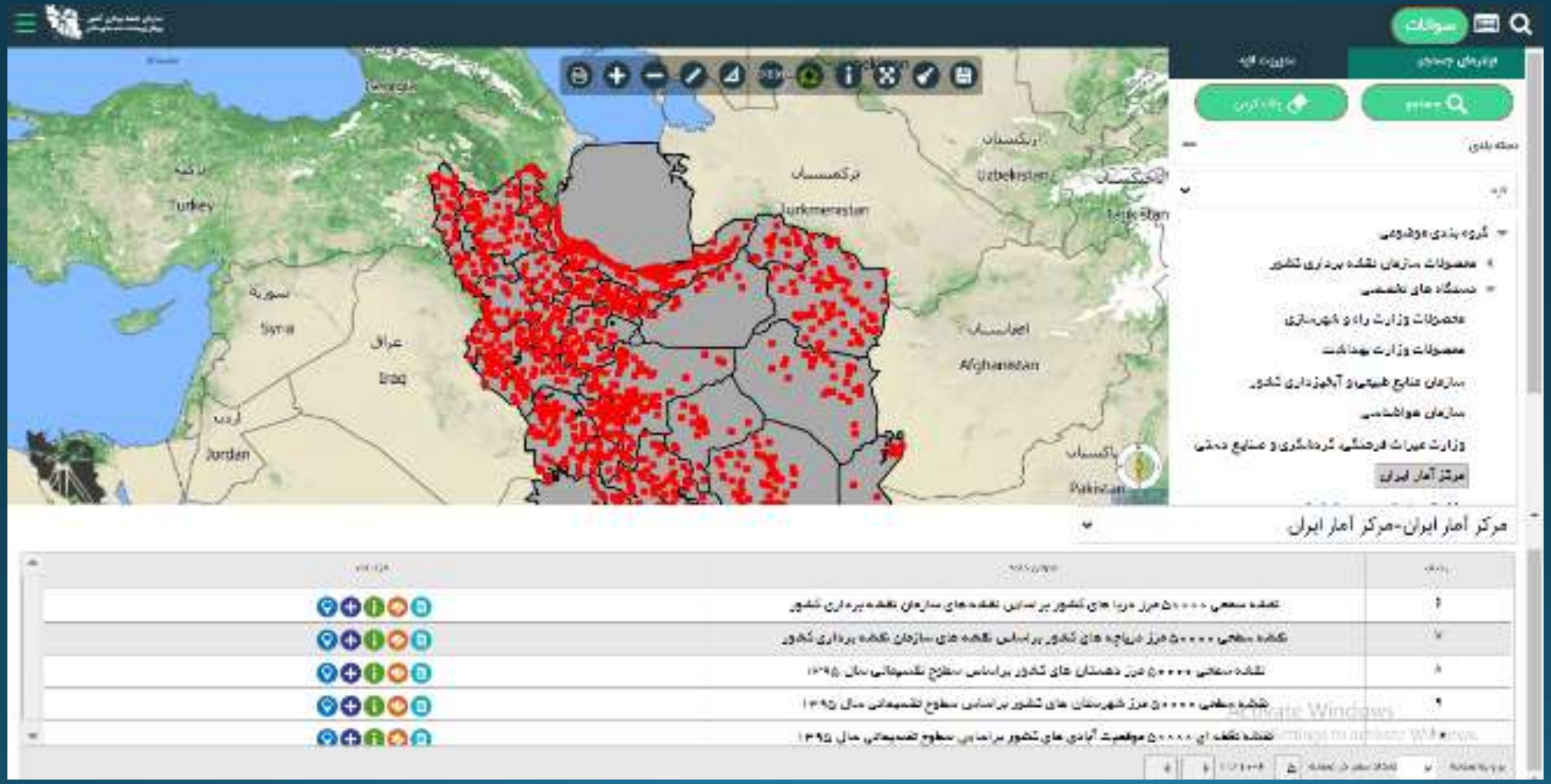
- In this work, Geoserver software has been used for providing and publishing spatial data.

- On the other hand, attribute and statistical information are provided in the API form by the National Statistics Center, which has utilized the Tomcat web server to create the service.

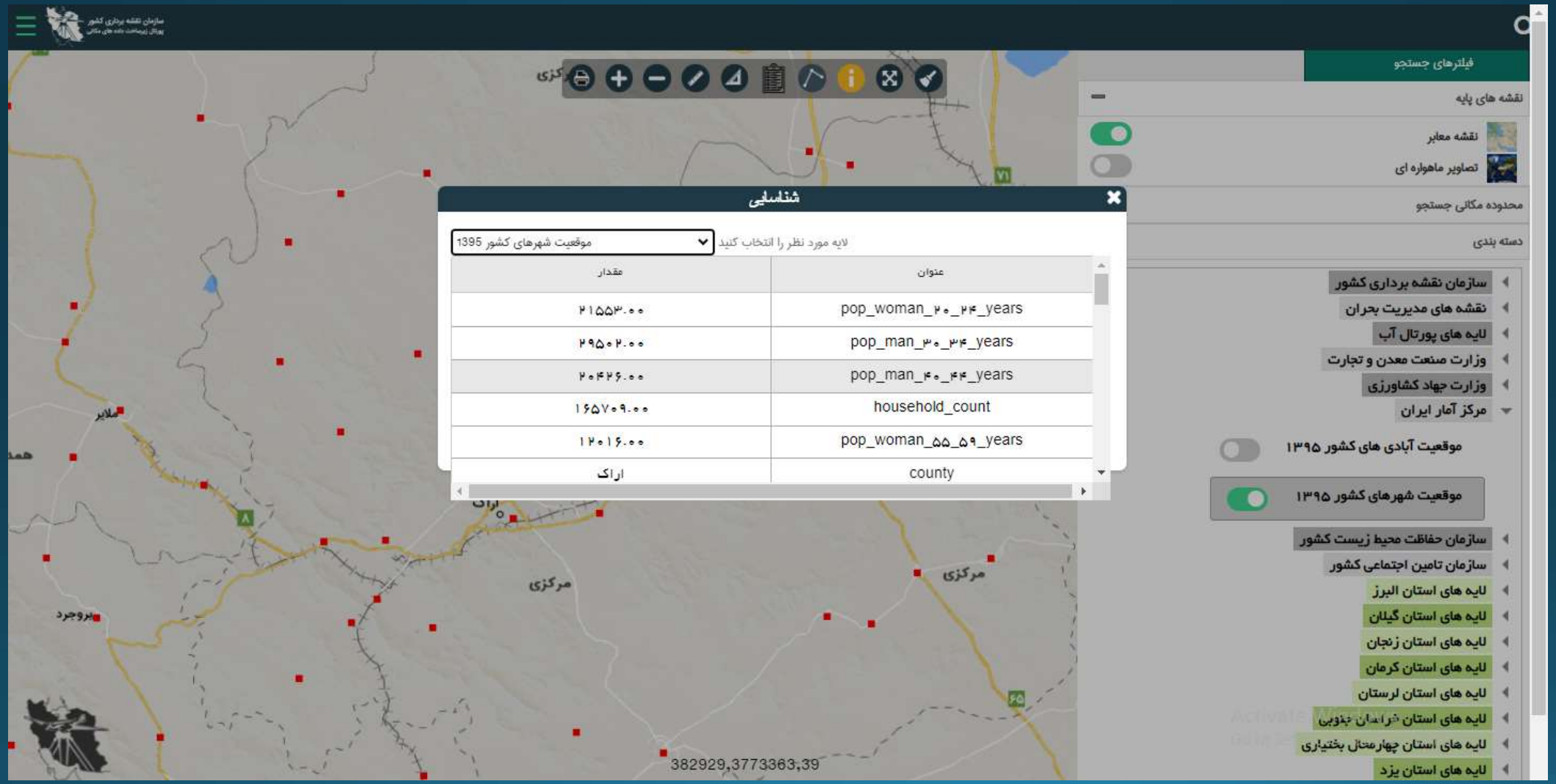
Architecture



Consequence



Consequence



Conclusion

- Implementing the TJS service using the Django framework provides a comprehensive and efficient solution for accessing statistical and geographical information dynamically. This system allows users to simultaneously access statistical and geographical data.
- Providing spatial data through a standard and web-based service enables obtaining spatial and statistical data online and dynamically. This can be used for comprehensive analysis based on spatial and statistical information, for economic, social, and other decision-making purposes.

Thank you for your attention!