|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **FEATURES** | L. Liu, D. Li, and Z. Shao, “Design and implementation of a geospatial portal,” in *Geoinformatics 2008 and Joint Conference on GIS and Built Environment: Geo-Simulation and Virtual GIS Environments*, 2008, vol. 7143, no. August 2015, p. 71432E | H.Lin *et al.*, “A geospatial web portal for sharing and analyzing greenhouse gas data derived from satellite remote sensing images,” *Front. Earth Sci.*, vol. 7, no. 3, pp. 295–309, 2013 | R. Olyazadeh, K. Sudmeier-rieux, M. Jaboyedoff, M. Derron, and S. Devkota, “An offline – online Web-GIS Android application for fast data acquisition of landslide hazard and risk,” *Nat. Hazards Earth Syst. Sci.*, vol. 17, no. 4, pp. 549–561, 2017. | A. N. Anna and V. N. Fikriyah, “Environmental pollution monitoring using a Web-based GIS in Surakarta,” *IOP Conf. Ser. Earth Environ. Sci. Pap.*, vol. 314, 2019.. |
| **User change accommodation** | ⮿ | ⮿ | ⮿ | ☑ |
| **Graphs** | ⮿ | ☑ | ☑ | ⮿ |
| **Map navigation menu(map tools)** | ☑ | ☑ | ☑ | ☑ |
| **Data downloading** | ☑ | ☑ | ☑ | ☑ |
| **Real-time Spatial data analysis** | ⮿ | ☑ |  | ⮿ |
| **Database** | ☑  Different databases | ☑ PostgreSQL | ☑ PostgreSQL | ☑  PostgreSQL |
| **Interactive maps** | ☑ | ☑ | ☑ | ☑ |
| **User login option** | ☑ | ⮿ | ☑ | ☑ |

# 

|  |  |
| --- | --- |
| **Graphs** | ☑ |
| **Map navigation menu(map tools)** | ☑ |
| **Interactive maps** | ☑ |
| **Real-time Spatial data analysis** | ⮿ |
| **Data downloading** | ⮿ |
| **User login option** | ⮿ |
| **User change accommodation** | ⮿ |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **FEATURES** | D. S. Rathore, D. Chalisgaonkar, R. P. Pandey, T. Ahmad, and Y. Singh, “A Web GIS Application for Dams and Drought in India,” *J. Indian Soc. Remote Sens.*, vol. 38, no. 4, pp. 670–673, 2010, doi: 10.1007/s12524-010-0054-2. | K. Observatory, C. Istanbul, T. Land, F. Command, and C. E. Faculty, “Developing a Web-Based Gis Application for Earthquake Information,” *Civ. Eng.*, pp. 1–4, 2002 | I. Machdar, T. Zulfikar, R. S. Oktari, H. Fahlevi, and W. Irawati, “Assessment of post-tsunami disaster recovery of Banda Aceh city of Indonesia as window of opportunities for sustainable development Assessment of post-tsunami disaster recovery of Banda Aceh city of Indonesia as window of opportunities for sustainable dev,” pp. 0–11, 2004, doi: 10.1088/1755-1315/56/1/0120. | A. Noor Anna, Rudiyanto, and V. Nahdhiyatul Fikriyah, “Environmental pollution monitoring using a Web-based GIS in Surakarta,” *IOP Conf. Ser. Earth Environ. Sci.*, vol. 314, no. 1, 2019, doi: 10.1088/1755-1315/314/1/012066 | L. Van Trung and D. M. Tam, “Web GIS Solution for Monitoring the Forest-Cover in the Mekong Delta, Vietnam,” *J. Geogr. Inf. Syst.*, vol. 10, no. 05, pp. 491–502, 2018, doi: 10.4236/jgis.2018.105026 |
| **Data downloading** | ⮿ | ☑ | ⮿ | ⮿ | ⮿ |
| **Dynamic maps and webpage.** | ☑ | ☑ | ☑ | ☑ | ☑ |
| **Graphical representations of data** | ⮿ | ⮿ | ⮿ | ⮿ | ⮿ |
| **Database** | ☑ | ☑ | ☑ | ☑ | ☑ |
| **User provided data** | ⮿ | ⮿ | ⮿ | ☑ | ⮿ |
| **Real-time Spatial data analysis** | ⮿ | ⮿ | ⮿ | ☑ | ⮿ |
| **Map navigation menu(map tools)xl** | ☑ | ☑ | ☑ | ☑ | ☑ |
| **Temporal data analysis** | ☑ | ☑ | ⮿ | ⮿ | ☑ |
| **Thematic maps** | ☑ | ☑ | ⮿ | ⮿ | ☑ |

|  |  |
| --- | --- |
| **Graphs** | ☑ |
| **Map navigation menu(map tools)** | ☑ |
| **Dynamic maps and webpage** | ☑ |
| **Real-time Spatial data analysis** | ⮿ |
| **Data downloading** | ⮿ |
| **Thematic maps** | ☑ |
| **Temporal data analysis** | ☑ |