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| <b>ORGANIZATION</b>     | National Institute of Urban Affairs (NIUA) |
| <b>FUNCTIONAL TITLE</b> | <b>Backend Developer</b>                   |
| <b>LOCATION</b>         | New Delhi                                  |

### **Swachh Bharat Mission-Urban (SBM-U):**

Swachh Bharat Mission-Urban (SBM-U) 2.0 aims to achieve;

- Garbage Free cities through Sustainable Solid Waste Management
- Sustainable Sanitation and treatment of used Water
- Awareness creation and,
- Creation of institutional capacity

Building on the success of the first phase, Swachh Bharat Mission 2.0 aims to expand the efforts on several aspects related to sanitation and public health. In the past seven years of Swachh Bharat Mission, around 63 lakh individual household latrines (IHHLs) and over 6.3 lakh community toilets (CTs) and public toilets (PTs) have been built across India.

In order to sustain the Open Defecation Free (ODF) status and ensure that no slippage occurs, the Ministry of Housing and Urban Affairs (MoHUA) has introduced the ODF+ and ODF++ protocols and Water+ protocols. ODF++ protocol focuses on addressing safe containment, evacuation, transportation and processing of fecal sludge from toilets and ensuring that no untreated sludge is discharged into open drains, water bodies or open fields. Water+ protocol helps ensure that no untreated waste (used) water is discharged into the open environment or water bodies.

### **About the National Institute of Urban Affairs (NIUA):**

Established in 1976, the National Institute of Urban Affairs (NIUA) is a premier institute of the Ministry of Housing and Urban Affairs, Government of India, for research and capacity building for the urban sector in India. NIUA's broad objective is to bridge the gap between research and practice on issues related to urbanization. For more than 40 years now, NIUA has been the vanguard for contributing to and building the urban narrative for a fast evolving urban India. The Institute has been actively working on bringing forth key areas of concern for urban India in order to build the urban discourse at various urban scales. It has utilized its competencies in research, knowledge management, policy advocacy and capacity building to address urban challenges and continuously striving to develop sustainable, inclusive and productive urban ecosystems in the country. It has emerged as a thought leader and knowledge hub for urban development in India and is sought after by

both Indian and international organizations for collaborations and partnerships in India's urban transforming journey. NIUA is committed towards aligning its efforts towards achieving Sustainable Development Goals (SDGs) through all its initiatives and programmes.

### **National Urban Digital Mission (NUDM):**

In this context, it may be noted that MoHUA has launched the National Urban Digital Mission (NUDM) in February 2021 to digitalize the urban citizen services in the country with the intent of improving transparency, governance, Ease of Living (EoL) and Ease of Doing Business (EoDB). National Institute of Urban Affairs (NIUA) has been nominated as the anchor institution for implementation of NUDM and works closely with all the States / UTs for Mission implementation. The NUDM currently anchored by the Centre for Digital Governance (CDG) Team at NIUA shall become the vehicle for activating the proposed initiative under Swachh Bharat Mission, ensuring necessary convergence of the programs/schemes for achieving positive transformation in delivery of citizen services.

To facilitate the online delivery of urban services in the States / UTs, a shared Digital Public infrastructure in the form of Urban Platform for Delivery of Online Governance - UPYOG has already been developed with ready-to-use 18 reference applications for providing Government to Citizens (G2C), Government to Business (G2B) and Government to Government (G2G) services for improving Ease of Living, Ease of Doing Business and internal efficiencies of ULBs. These 18 reference applications include Property Tax Assessment and Payment, Online Building Plan Approval System, Public Grievance Redressal, Trade License Issuance and Payment, No-Objection Certificate Issuance, Water and Sewerage Connection Management, NMAM-Compliant Municipal Accounting and Finance, Birth and Death Certificates, Miscellaneous Collections and Desludging Service, Pet Registration, Community Hall Booking, Advertisement/Hoardings, Asset Management, E-waste Management, Street Vendors Management.

The development and rollout of the proposed Integrated Service and Information Management Infrastructure for Desludging shall therefore leverage the UPYOG platform, owing to the availability of existing infrastructure.

## **Responsibilities:**

- Design, develop, and maintain backend services using programming languages like Java, Python, Ruby, PHP, or Node.js.
- Work with SQL and NoSQL databases (MySQL, PostgreSQL, MongoDB, etc.) to store and retrieve data efficiently.
- Develop and maintain RESTful and GraphQL APIs to expose backend services to frontend applications.
- Manage and deploy servers on cloud platforms like AWS, Azure, or Google Cloud.
- Collaborate with frontend developers to ensure seamless integration between frontend and backend components.
- Contribute to the development and maintenance of CI/CD pipelines using tools like Jenkins.
- Monitor system performance and identify bottlenecks using tools like Prometheus, etc.
- Work with messaging services like Kafka or AWS SQS for asynchronous communication between components.

## **Skills, Qualifications, & Experience:**

- Bachelor's degree in Computer Science, Software Engineering, or a related field (or equivalent experience).
- Proven 8-15 years of experience in backend development.
- Strong proficiency in at least one programming language from Java, Python, Ruby, PHP, or Node.js
- In-depth knowledge of SQL and NoSQL databases
- Experience with RESTful and GraphQL APIs
- Knowledge of server management and deployment on cloud platforms
- Proficiency in Git and version control systems
- Familiarity with Docker and Kubernetes for container orchestration
- Experience with CI/CD pipelines and tools
- Understanding of system monitoring tools Knowledge of messaging services

## **Desired Skills:**

- Experience with microservices architecture
- Knowledge of serverless computing platforms
- Experience with event-driven architectures
- Familiarity with DevOps practices

- Knowledge of containerization tools like Docker and Kubernetes.
- Familiarity with CI/CD pipelines.

**Last Date to Apply:** 25 July, 2025.

**Application process:** Submit your application through the NIUA Job Portal.