



INSTITUTE FOR DEVELOPMENT AND RESEARCH IN BANKING TECHNOLOGY

(Established by Reserve Bank of India)

Advertisement No: 13/2021 – 22

Dated: January 12, 2022

Engagement for Project Positions

The Institute for Development and Research in Banking Technology (IDRBT), established by the Reserve Bank of India, is the premier Institute of Banking Technology in the country. The Institute spearheads efforts in providing state-of-the-art technologies for the Indian Banking and Financial Sector by interfacing Applied Research and Development, Academics, Executive Education, Practice and Consultancy so as to continuously enable the technology transformation of the Banking and Financial Sector in India and make it future-ready. The Institute is now working on the following Research Projects:

1. Project: Towards Providing Scalable Business Services – A Hybrid Cloud and Microservices Approach

Large critical business systems' development, deployment, and management teams are all different, making new upgrades challenging. A critical business system version update is a multiyear undertaking with high costs and manpower needs. With the current monolithic application design of business systems, even a tiny bug can bring the entire business system to a halt, making debugging and correcting the problem extremely tough and complex.

The monolithic business application's IT architecture is unable to scale to meet the client expectations. A majority of these issues can be addressed if today's monolithic business applications are reimaged and developed as Microservices and then deployed on a Hybrid Cloud. For businesses trying to modernise their applications and workloads, the hybrid cloud adoption is becoming increasingly important. Organisations have benefited from the decision to bridge the gap between on-premises and cloud-based infrastructures by streamlining their operational procedures and increasing business scalability. Businesses can employ cloud-native technologies and microservices to break down apps into smaller, reusable components using a hybrid cloud architecture. Microservices ensure that deployment, management, and performance are uniform and reliable across clouds.

This project proposes to design, develop, and implement a prototype of a Microservices-based Hybrid Cloud for a variety of services that auto scale (upscale and downscale) both horizontally and vertically to ensure continuous delivery of business services.

2. Project: Privacy Preserving of Outsourcing Data in Cloud Storage Using Lattice Based Cryptography

Cloud Computing has become increasingly convenient and cost-effective for data storage and sharing. To save money on infrastructure and upkeep, an increasing number of enterprises and individuals are shifting their data to the cloud. Although the adaptability and cost-effectiveness of cloud storage

appeal to a wide spectrum of consumers, it also raises issues about data privacy and access management for users. As the cloud server may not be completely trustworthy, sensitive data may be leaked or disclosed, jeopardising data privacy.

To protect data privacy, sensitive data might need to be encrypted before being sent to the cloud. Encryption protects data privacy but restricts the ability to search encrypted data. The user can utilise searchable encryption to search through encrypted data. This project will focus on developing Secure Protocols for Privacy Preserving of Outsourcing Data in Cloud Storage Using Lattice Based Cryptography.

In order to contribute to the above-mentioned key research projects and in the process to enhance their own knowledge and skills, applications are invited from young dynamic candidates for the following temporary project positions:

POSITION: RESEARCH ASSOCIATES

i. No. of Positions: Four

ii. Primary Responsibilities:

- Carry out research in the areas of Microservices and Hybrid Cloud
- Develop and implement Microservices based applications
- Develop Security Protocols for Data Privacy in Cloud
- Work-on Virtualized Data Centers
- To carry out any other responsibilities assigned by the Institute

iii. Eligibility:

(a) Educational Qualifications

- A First class regular B.E./B.Tech./M.E./M.Tech. (CSE/IT) or above from a recognised University with a consistently good academic record throughout.

(b) Desired Skills

- Programming languages like Python, Java, Node.js
- Cloud based Technologies like Virtualisation, Containers, Docker, Kubernetes, etc.
- Knowledge of Cryptography, Linux and Frameworks like Spring, SpringBoot, etc.

(c) Experience

- Some experience in related areas or highly motivated youngsters who have a flair for delving into Cloud Computing

(d) Reservation:

- While one position is reserved for OBC (Non-creamy layer) candidate, three positions are open for General candidates.

iv. Term: One year. Extendable based on project requirements and performance of the candidate for a further period not exceeding two years.

v. Compensation: All-inclusive consolidated compensation of Rupees Twenty Four Thousand Five Hundred per month.

Rules and Regulations for all these positions

1. All the above positions are purely temporary and on a contract basis under the project mode.
2. There is no scope whatsoever for further continuation, extension of term, absorption, regularisation, permanency, in the Institute under any circumstances
3. The completion of the period of contract / project will not confer any right whatsoever for further continuation, extension of term, regularisation, absorption at the Institute.
4. All educational qualifications must have been necessarily obtained by pursuing the courses on a full-time regular basis from recognised universities/institutions. If grades are awarded instead of marks, candidates should clearly indicate their numerical equivalent.
5. Relevant experience gained after the qualifying degree will only be taken into consideration.
6. Candidates should satisfy themselves about their eligibility for the position being applied for. Mere fulfilment of eligibility does not guarantee shortlisting for Selection Process.
7. Candidates should apply in the format provided on the Institute's website.
8. Incomplete applications / not in the prescribed format / without all the required documents, will be rejected and no correspondence will be entertained by the Institute.
9. Candidates for these positions should enclose attested scanned copies of their Marksheets and Certificates right from Matriculation onwards.
10. The candidature will be considered on the strength of the information declared in the Application. If at any stage, it is found that any information furnished is false / incorrect, the candidate has clandestine antecedents/background or if according to the Institute, the candidate does not satisfy the eligibility criteria, her/his candidature / appointment is liable to be cancelled / terminated at any point in time including after appointment, in addition to any disciplinary action as may be necessary.
11. In case of any inadvertent mistake in the process of selection which may be detected at any stage even after the issue of appointment letter, the Institute reserves the right to modify / withdraw / cancel any communication made to the candidates.
12. The Institute reserves the rights to screen and call only such candidates as are found prima-facie suitable for being considered
13. The Institute also reserves the right to restrict the candidates called for to the selection process to a reasonable number on the basis of qualifications, level and relevance of experience higher than the minimum prescribed herein and the requirements of the Institute. Thus just fulfilling the prescribed conditions would not entitle one to be called for the Selection Process. The Institute also reserves the right of rejecting any or all the applications without assigning any reasons therefore.
14. The Institute reserves the right to fill or not to fill any or all the positions advertised without assigning any reason.
15. In all matters regarding Eligibility, Qualification, Skills, Experience, Compensation, Contract Term, Selection Process, Assessment, Prescribing Minimum Qualifying Standards in Selection Process, and Communication of Result, the Institute's decision shall be final and binding on all the candidates and no correspondence shall be entertained in this regard.

16. Only shortlisted applicants will be contacted. No correspondence will be entertained from candidates regarding postal delays, conduct & result of selection process and reasons for not being called for the selection process.
17. Selected candidates should undertake to abide by all the rules and regulations pertaining to their retention as also the rules and regulations of the Institute.
18. The crucial date for determining the eligibility criteria for all candidates in every respect shall be the prescribed closing date for submission of application.
19. Interested candidates may forward a Covering Letter and Filled-in Application along with the copies / scanned copies of all the required documents to “The Human Resources Department, IDRBT, Castle Hills, Road No.1, Masab Tank, Hyderabad – 57” or by e-mail to project@idrbt.ac.in so as to reach the Institute latest by **February 10, 2022.**
