Programme on

Micro Services - Scaling IT Business Applications

Programme Coordinator: Dr. V. Radha





Institute for Development and Research in BANKING TECHNOLOGY, HYDERABAD

(Established by Reserve Bank of India)

Micro Services - Scaling IT Applications



Introduction

Majority of the business applications being in use were developed in the monolithic era (tightly coupled modules), using client-server architecture. This was an excellent choice when desktops ruled IT. But with the rise of mobile devices and the cloud, back-end data must always be available for a wide range of devices. At this point, the monolithic architecture is a major bottleneck, as whenever a change is made, the entire application has to be updated, opening up the possibility of new bugs. Most importantly, with everything tied to a single codebase, one can't scale a specific function or service independently; one has to scale uptheentire application, leading to higher costs.

With microservices, application code is broken into independent decoupled services that run as separate entities in different servers. Output from one service is used as an input to another inanorchestration of independent, communicating services.

Unlike the monolithic architecture wherein a failure in the code in a module affects more than one service or function, there isminimal impact of a failure using microservices. Even whenseveral systems are brought downformaintenance, users won't notice it.

Scalability is the key aspect of microservices. Because each service is a separate entity, one can scale up a single function or servicewithout having to scale the entire application. Business-critical services can be deployed onmultiple servers in load balancingmode for increased availability and performance.

Objective

The program aims to draw attention to the problems faced because of monolithic architectures and high lights the advantages of shifting to micro-services based architectures particularly in the context of scalability.

Contents

- Introduction to Containers and Docker
- ★ Introduction to Service Oriented Architecture and Micro Services
- **★** Monolithic Architectures and their pros and Cons
- **★** Micro Services Architectures and their pros and cons
- ★ Deployment Models
- ★ Testing Micro Services based Applications
- ★ CI / CD Pipelines
- * Application Deployment Models Blue, Green, Purple

Who can Participate?

IT officers and executives who are directly or indirectly involved in application development.

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End Use

Participants would definitely appreciate the concepts of micro services and the benefits they bring in.

Programme Coordinator

Dr. V. Radha, Associate Professor; e-mail: vradha@idrbt.ac.in.

Accommodation

Participants will be provided Air Conditioned Single Occupancy accommodation at IDRBT, Hyderabad, with all cafeteria facilities. The Participants can check-in on the evening of the day before the commencement of the programme and can check-out after completion of the programme on the same day (or) in the morning of the next day of the programme.

Fee Details

Domestic Participants from

RRBs & Coop. Banks : Rs. 38,000/-+Applicable GST
All other Banks & Fis : Rs. 45,000/-+Applicable GST

The fees for our programmes can be remitted through NEFT and the bank account details for fee payment are here under:

Account Name : IDRBT

Bank : Axis Bank Limited

Branch : Humayun Nagar (Mehdipatnam Ring Road) Branch, Hyd.

Account Number: 426010100018823

IFSC Code : UTIB0000426

GSTIN : 36AAAAI0204K1Z4.

Nominations

Nominations may be sent by filling the **Property Nomination Form (click to fill the form)** latest by **DECEMBER 19, 2025. Please note that no nominations will be accepted after this date.** This measure is envisaged to further improve the quality and learning outcomes of the programmes based on participants' profile and requirements.

While nominating, please provide the details of the participants (Name, Designation, Bank, Mobile No / Phone No., email address) along with the nominating authority details (Name, Designation, Bank, Mobile No / Phone No., email address, Fee billing address, GST No. of the bank).

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Contact Us

Please contact our Programme Office for organising Customised Programmes and/or any other queries related to programmes at hunar@idrbt.ac.in or call us on +914023294141/21.

Forthcoming Programmes of January 2026

S. No.	Programme	Date	Coordinator
1.	IT Governance & Risk, Compliance for Business Heads	05 - 07	Dr. Mridula Verma
2.	Micro Services - Scaling IT Applications	05 - 07	Dr. V. Radha & Dr. N. P. Dhavale
3.	Basics of Cyber Security	05 - 09	Dr. Dipanjan Roy
4.	Private Cloud Infrastructure Management	07 - 09	Dr. Abhishek Thakur & Dr. P. Syam Kumar
5.	Digital Payment Security Controls	19 - 21	Dr. N. P. Dhavale
6.	Financial Forecasting with AI/ML	19 - 23	Prof. V. Ravi & Dr. Mridula Verma
7.	Containerization	21 - 23	Dr. P. Syam Kumar
8.	APIs & Digital Ecosystem	21 - 23	Dr. V. Radha
9.	Security Operations Centre	28 - 30	Dr. V. Radha Dr. Dipanjan Roy
10.	Emerging Technologies in Banking	28 - 30	Dr. M. V. N. K. Prasad
11.	Security by Design, Testing and Integration of Applications	28 - 30	Dr. V. N. Sastry

Please visit our website for more details on programmes at https://www.idrbt.ac.in/executive-development-programmes/