ANNA UNIVERSITY REGIONAL CAMPUS COIMBATORE-641046

SERVERLESS IoT DATA PROCESSING

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Agenda

1. **Project Overview**

2. **Problem Statement**

3. **Proposed Solution**

4. **Implementation Plan**

5. **Benefits and Impact**

Project overview

- **The project's primary objectives are to design and implement a highly efficient system for processing IoT data in the cloud using serverless computing.**
- **Emphasize the importance of real-time data processing and analytics in enhancing decision-making in IoT applications.**

Problem statement

<u>Challenges:</u>

- The increasing volume, velocity, and variety of IoT data pose challenges in terms of efficient processing, real-time analytics, and cost-effectiveness.

- Existing solutions often struggle to scale effectively to handle IoT data spikes and maintain low-latency processing.

Proposed solution

Architectural Overview:

• **Present a high-level view of the proposed system architecture, emphasizing modularity and scalability.**

• **Outline the key components:**
  - **1) data ingestion,**
  - **2) real-time processing,**
  - **3) storage, and**
  - **4) analytics.**

Technologies:

• **Specify the serverless technologies and cloud services to be leveraged in the implementation, e.g., AWS Lambda, Amazon Kinesis, Amazon S3, etc.**

IMPLEMENTATION PLAN

- **Planning and Architecture Design**
  - **Define system requirements and architecture.**
  - **Identify key technologies and tools.**
- **Implementation**
  - **Develop serverless functions for data processing.**
  - **Set up data pipelines and storage.**
- **Testing and Optimization**
  - **Perform rigorous testing, including load and stress testing.**
  - **Optimize functions and workflows for efficiency.**
- **Deployment and Monitoring**
  - **Deploy the system in a production environment.**
  - **Implement real-time monitoring and alerting.**

BENEFITS AND IMPACT

- **Potential Benefits:**

  - **Scalability to handle varying IoT data volumes.**

  - **Cost savings through serverless computing.**

  - **Real-time insights for better decision-making.**

- **Impact :**

  - **Alignment with business goals and long-term strategies.**

CONCLUSION

In summary, our project, "Serverless IoT Data Processing," promises to revolutionize IoT data processing, leveraging serverless computing for cost-effective scalability and real-time insights.

THANK YOU