ANNA UNIVERSITY REGIONAL CAMPUS COIMBATORE-641046

CLOUD COMPUTING

SERVERLESS IoT DATA PROCESSING

Submitted by,
Varshini R
710021106040
B.E- Electronics and Communication Engineering

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

Challenges:

- 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: data ingestion, real-time processing, storage, and 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 conclusion, our project, "Serverless IoT Data Processing in Cloud Computing," offers a robust solution to the complexities of handling IoT data. Leveraging serverless computing, we're poised to achieve scalability, cost-efficiency, and real-time insights. By mitigating risks and engaging stakeholders, we are well-prepared to embark on this transformative journey, poised to drive innovation and enhance decision-making through advanced data processing

THANK YOU…