Processing IoT data for home automation using a serverless approach with IBM database involves several steps. Here's a high-level step-by-step process:

1.Define Requirements:
Clearly define your requirements for home automation and IoT data processing. Determine what data you want to collect and process, as well as the desired outcomes.

2. Select IoT Devices:
Choose IoT devices (sensors, actuators, cameras, etc.) compatible with your home automation goals. Ensure these devices can send data to your chosen IoT platform.

3. Choose an IoT Platform:
Select an IoT platform, such as IBM Watson IoT, to manage device connectivity and data ingestion. Follow the platform's documentation to set up your devices.

4. Serverless Compute (IBM Cloud Functions):
Use IBM Cloud Functions (IBM's serverless computing service) to process incoming IoT data. Create functions that trigger when data arrives from IoT devices.

5. Database Selection:
Choose an IBM database service, such as IBM Db2 or IBM Cloudant, to store and manage your IoT data. Ensure it can handle the scale of data you anticipate.

6. Create a Database:
Set up a database instance within the chosen IBM database service. Define the data schema and any necessary indexes.

7. Define Data Flow:
Design the flow of data from the IoT platform to your serverless functions and into the IBM database. This might involve setting up MQTT or HTTP endpoints to receive data from IoT devices.

8. Serverless Data Processing:
Implement serverless functions to process incoming IoT data. These functions may perform tasks like data validation, transformation, aggregation, and event triggers for automation.

9. Data Storage:
Store processed data in the IBM database. Use appropriate database drivers and libraries to interact with the database from your serverless functions.

10. Data Analysis and Insights:
Set up analytics and reporting tools to gain insights from your IoT data. IBM offers various analytics services that can be integrated into your solution.

11. Automation Logic:
Create automation logic within your serverless functions to control home automation devices based on predefined rules and triggers.

12. Security and Access Control:
Implement security measures, such as data encryption, access control, and authentication, to protect your IoT data and serverless functions.

13. Monitoring and Logging:
Set up monitoring and logging to keep track of system performance, errors, and anomalies. Use IBM Cloud monitoring and logging services for this purpose.

14.Scaling and Optimization:
Continuously monitor the system's performance and scale resources as needed. Optimize your serverless functions and database queries for efficiency.

15. Testing and Validation:
Thoroughly test your IoT data processing and home automation system. Verify that it meets your requirements and functions reliably.

16. Deployment:
Deploy your serverless functions and database in a production environment. Ensure that they are accessible to your IoT devices.

17. Documentation and Maintenance:
Document the system architecture, configurations, and maintenance procedures. Plan for regular updates and maintenance of your IoT solution.

18. User Interface (Optional):
If desired, create a user interface (e.g., web or mobile app) to control and monitor your home automation system.

19. Training and Support:
Provide necessary training and support to users who will interact with your home automation system.

20. Continuous Improvement:
Continuously gather feedback and improve your system based on user needs and changing requirements.

Remember that this process may require a good understanding of IoT, serverless computing, and database management. Be prepared to iterate and refine your solution as you gain more experience and insights.