**Problem Statement**

To find the insights from the real time date streaming from a Smart home application.The dataset contains the temperature readings from IOT devices installed outside and inside of a Room.

Sample Data:Temperature.csv

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | RoomID | Date | Temp | Location |
| \_\_export\_\_.temp\_log\_196134\_bd201015 | Room Admin | 08-12-2018 9:30 | 29 | In |
| \_\_export\_\_.temp\_log\_196131\_7bca51bc | Room Admin | 08-12-2018 9:30 | 29 | In |
| \_\_export\_\_.temp\_log\_196127\_522915e3 | Room Admin | 08-12-2018 9:29 | 41 | Out |
| \_\_export\_\_.temp\_log\_196128\_be0919cf | Room Admin | 08-12-2018 9:29 | 41 | Out |
| \_\_export\_\_.temp\_log\_196126\_d30b72fb | Room Admin | 08-12-2018 9:29 | 31 | In |

**The above sample data from the dataset contains 5 columns such as**

ID : unique IDs for each reading

RoomID : room id in which device was installed

Date : date and time of reading

Temp : temperature readings

Location : whether reading was taken from a device installed inside or outside of the room?

1 . Write a Query to get all the records with RoomID as “Reception”.

Steps:

A. Create stream analytics service resource using the below details

**Resource Group**-AzureIoTAssignment

**Storage Account**-HomeSensor

**Input Container**-TempIn

**Output Container**-TempOut

**Stream Analytics Job** -TempAnalysis

B. You have to create a storage account Temperature and containers inside it such as TempIn and TempOut.

C. Upload the Temperature dataset into TempIn.

D. Create a stream Analytics Job TempAnalysis and configure the inputs and the output.The input should be the TempIn and the output should be the TempOut.

E. Write the Queries to get the suitable output.

2. Write a Query to get all the records with Location as “In” and RoomID as “Room Admin”

Steps:

A. Use the same procedure in the above question to create ASA and job.

B. Write the query to fetch the records

C. Run the query and test

3.Write a Query which will send the records with Temperature more than 35 in one container and less than 35 in another.

Steps:

A. Use the same procedure in the above question to create ASA and job.

B. Write the query to fetch the records

C. Run the query and test

4.Write a query to display the average temperature of all the records.

Steps:

A. Use the same procedure in the above question to create ASA and job.

B. Write the query to fetch the records

C. Run the query and test

5.Write a query of the to display the maximum and minimum value of temperature of all the records.

Steps:

A. Use the same procedure in the above question to create ASA and job.

B. Write the query to fetch the records

C. Run the query and test

6.Write a query to display the count of the distinct number of locations of all the records.

Steps:

A. Use the same procedure in the above question to create ASA and job.

B. Write the query to fetch the records

C. Run the query and test

**Note-Store the output of respective queries in suitable containers created inside the storage account HomeSensor**