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function [cluster_array] = generate EMC_cluster(dataset, delta, N)

counter = 1;

num_items = size(dataset,1);
num_taken = 0;

while(num_taken < num_items)

    available_rows = find(dataset(:,1) < Inf); %finds all available rows
    current_index = available_rows(1); %selects the first available row
    x_current = dataset(current_index,1:N);

    index_vector = find(sum((dataset(:,1:N) .- x_current).^2,2) <= delta^2); %we don't need
to take the full norm, which saves a step

    temp_values = dataset(index_vector,1); %we want to find any values set to Inf

    taken_indexes = find(temp_values == Inf); %any such index is already taken
    index_vector(taken_indexes) = [];

    cluster_array{counter} = index_vector'; %stores the indexes of the cluster; transpose
for housekeeping reasons
    counter = counter + 1;

    dataset(index_vector,:) = Inf; %removes the items from the dataset

    taken_rows = find(dataset(:,1) == Inf); %finds taken rows
    num_taken = size(taken_rows,1);

endwhile

endfunction

```