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%=====
%VECTORIZED CLASSIFICATION CORRELATION
%=====

%=====
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%=====
%LOADS THE DATASET
%=====

%=====
%LOADS UCI DATASET
%=====

%clears the memory and the command prompt
clear
clc
%-----

file_path = 'Users/charlesdavi/Desktop/Datasets/UCI/UCI_Credit_Card.csv';
dataset = csvread(file_path);
num_rows = size(dataset,1);
N = size(dataset,2) - 1;

%=====
%MEASURES CORRELATION
%=====
class_vector = dataset(:,N+1);

for i = 1 : N

dimension_vector = dataset(:,i);

[a indexes] = sort(dimension_vector);

temp_class_vector = class_vector(indexes);

LH = temp_class_vector(1:num_rows-1);
RH = temp_class_vector(2:num_rows);

test_vector = LH < RH;
L_correlation_count = sum(test_vector);

test_vector = LH > RH;
R_correlation_count = sum(test_vector);

correlation_count = max(L_correlation_count,R_correlation_count)

correlation_score(i) = correlation_count/num_rows

endfor

%=====
%RUNS PREDICTION

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%=====

```
[accuracy output_matrix error_vector] = find_NN_dataset(dataset, []);
```

accuracy

```
modified_dataset = dataset(:, 1:N).*correlation_score;
```

```
modified_dataset(:, N+1) = dataset(:, N+1);
```

```
[accuracy output_matrix error_vector] = find_NN_dataset(modified_dataset, []);
```

accuracy