```
function hostels_new = enCode(hostels_old)
% enCode - converts binary data to an array of dummy variables
% using one-hot-encoding technique to convert all binary
% columns from the table to dummy variables while avoiding
% the dummy variable trap
   cat table = hostels old(:,1:5);
   hostels_old = hostels_old(:,6:end);
   newtable = table();
   for i = 1:size(cat_table,2)
      ec = categorical(table2array(cat table(:,i)));
      ec = table(ec);
      ec = onehotencode(ec);
      newtable = [newtable ec(:,2)];
      for j = 1:size(newtable,2) % 1
         names = ["study room" "tv room" "security" "ext power" "ac"];
         newtable.Properties.VariableNames(j) = names(j);
   end
   hostels_new = [newtable hostels_old];
end
function hostels_new = toDummy(hostels_old)
% toDummy - transforms categorical features to dummy variables
% using each unique data (n-1) as a column to represent a new column
% of dummy(binary) variables.
% ps: (n-1) unique data because we want to avoid the dummy variable trap
   top = hostels_old(:,1:5); bottom = hostels_old(:,8:end);
   b = hostels old.beds;
   p = hostels_old.post_code;
   b = categorical(b);
   b = table(b):
   b = onehotencode(b);
   b = b(:,1:end-1);
   p = categorical(p);
   p = table(p);
   p = onehotencode(p);
   p = p(:,1:end-1);
   hostels_new = [top b p bottom];
function [T, residuals] = Metrics(yActual,yPredicted)
*Metrics - Evaluation Metrics
%this code calculates the MAE, RMSE and Rsguared
   residuals = yActual - yPredicted;
   sTotal = yActual - mean(yActual);
   MSE = mean(residuals.^2);
   RMSE = sqrt(MSE);
   MAE = mean(abs(residuals));
   Rsquared = 1 - ((sum(residuals.^2)) / (sum(sTotal.^2)));
   sz = [1,3];
   varTypes = {'double','double'};
   varNames = {'MAE', 'RMSE', 'Rsquared'};
   T = table('Size',sz,'VariableTypes',varTypes,'VariableNames',varNames);
   T(1,:) = \{MAE,RMSE,Rsquared\};
end
```