1. Write a function *my_make_lin_ind(A)*, where A and B are matrices. Let the rank(A)=n. Then B should be a matrix containing the first n columns of A that are all linearly independent. Note that this implies that B is full rank.

   Test case:
   A = np.array([[12,24,0,11,-24,18,15],
   [19,38,0,10,-31,25,9],
   [1,2,0,21,-5,3,20],
   [6,12,0,13,-10,8,5],
   [22,44,0,2,-12,17,23]])

   B = my_make_lin_ind(A)

   Result:
   B = [[12,11,-24,15],
   [19,10,-31,9],
   [1,21,-5,20],
   [6,13,-10,5],
   [22,2,-12,23]]

2. In a markdown section in your notebook, explain what one hot encoding is and why we use it. Then, manually calculate a one hot encoding for the Belize_Airbnb_listings.csv neighborhood_group column. Note: manually means don't use scikitlearn or keras.