In this assignment, you would have to successfully implement the Row Transposition Cipher as explained in class. You must build two functions for encryption and decryption of plaintext and ciphertext. Make sure to cover the basic test cases for complete points. Please use [RowTransposition.ipynb](https://umd.instructure.com/courses/1318851/files/folder/Homework%20Format%20Descriptors?preview=66832467" \t "_blank) as a reference.  
  
Kindly read the complete description to make sure your program satisfies all the requirements.

You MUST:

1. Have a global variable named "UID" that should have your University ID in integer. e.g., UID = 1234  
  
2. Have a global variable named "Last\_Name" that should have your last name (as in Canvas) as a string. e.g., Last\_Name = 'Last'

3. Have a global variable named "First\_Name" that should have your first name (as in Canvas) as a string. e.g., First\_Name = 'First'

4. Input Plaintext, Encrypted String, and Decrypted String must preserve the characters' case and work with strings with hybrid, upper and lower case characters. Key can take any value from 1 to 9 with no missing number in between.

5. Spaces should be removed during Encryption and Decryption.

6. Have a function with the name "row\_trans\_enc" that accepts string as its first argument and a key(string of numbers) as its second argument. For eg: function call:row\_trans\_enc("ATTACKPOSTPONEDUNTILTWOAM", "4312567") should return "TTNAAPTMTSUOAODWCOIXKNLXPETX"(with padding XXX to the input, Only use 'X' for padding).

7. Have a function with the name "row\_trans\_dec" that accepts string as its first argument and a key(string of numbers) as its second argument. For eg: function call:row\_trans\_dec(" TTNAAPTMTSUOAODWCOIXKNLXPETX ", " 4312567") should return "ATTACKPOSTPONEDUNTILTWOAMXXX".  
  
8. Submit only a .py file and NOT a .ipynb file on canvas.  
  
All the MUST conditions have to be fulfilled for complete points.

You MAY:

1. Write your own extra functions for testing without affecting the 2 functions required for this submission.  
  
2. Use print statements to print out values for your own reference.  
  
3. Use any development environment you're comfortable with as long as you can meet the resulting program's requirements.  
  
4. Use this sample notebook (also accessible through the folder Homework Format Descriptors ->[homework\_2.ipynb](https://umd.instructure.com/courses/1318851/files/folder/Homework%20Format%20Descriptors?preview=66839246) in the Files section on Canvas) to get started, which you may upload on Google Colaboratory (Links to an external site).

5. Name your python (.py) file whatever you want