In this Assignment, you will be performing Encryption & Decryption using RSA. Please review this [python notebook](https://umd.instructure.com/courses/1318851/files/folder/Homework%20Format%20Descriptors?preview=67640961) (Homework-5.ipynb) for more details about this homework. You will have to implement a round of public-key encryption and private-key decryption to get back your original plaintext.

**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. Use 2 functions, '**rsa\_enc\_public'**that accepts input block and keypair**,** and **'rsa\_dec\_private'**that accepts cipher-block and keypair as shown in the python notebook.  
5. Generate RSA Keypair of size 2048 bits.

The python notebook attached above clearly shows the usage of the functions for encryption and decryption. You may also read the pycryptodome library's documentation to review the function usage in depth.

**Note**: Use only**pycryptodome**library and not any other library for crypto functions.          Submit only a single .py file and NOT a .ipynb file.

**You MAY:**

1. Write your own extra functions for testing without affecting the functions required for this submission.
2. Rewrite existing supporting functions as long as the expected result is achieved.
3. Use print statements to print out values for your own reference.
4. Use any development environment you're comfortable with as long as you can meet the resulting program's requirements
5. Name your python (.py) file whatever you want.