

18<sup>th</sup> January 2026

9:44 p.m.

I went through the suggested topics linked on the Moodle page and ended up between two options that interested me. One was Machine Learning, speech-to-text transcription and the other was a Cyber Security topic, RSA encryption and decryption. After watching videos about both topics for a couple of hours, I contacted the course staff about approving my project and I got a greenlight on my project idea.

I have looked through pre-existing codes that are available on public GitHubs regarding RSA encryption to get an idea of how to proceed with my own code.

I learned in depth about RSA encryption process, Miller-Rabin Primality Test, Euler's totient function and modular arithmetic. The totient function is a bit difficult to follow but with a bit of a pen-and-paper-and-calculator practice I'll be able to soon grasp it and apply it in my code.

My plan is to watch a few more videos on RSA and start with small values in my code before configuring it to text encryption; I've also thought about sticking to just the English language first but intend on expanding to a couple of more languages if possible within the timeframe and my capabilities.

So far, I've spent twelve hours over the entire week to try and narrow down the topics and specific project ideas by watching and reading sources from the internet.