Week 2 Tasks

Mohamed Emary

October 25, 2023

This Week Tasks

1. Encryption Algorithms
2. Code of each encryption algorithm
3. Numerical Methods Algorithms
4. Improve algorithm by using the numbers you get from radio labeling as passwords
5. Factors that affect the performance of encryption algorithms

We may use last year project numerical methods project

Week Link on Github Repo

Encryption Algorithms

1. AES
2. DES
3. RSA
4. Diffie–Hellman
5. SHA 1, 256, 3 algorithms

We may also add:

1. Blowfish
2. Twofish
3. Triple DES

Numerical Methods

Methods We already know:

1. Solving equations by factoring
2. general formula for solving quadratic equations
3. Graphical Solution
4. Jacobi
5. Gauss–Seidel
6. Newton
7. Bisection

Methods we don't know:

From Dr PDF:

1. Trisection Algorithm
2. Fixed point Algorithm
3. Secant method
4. False-Position Algorithm
5. Hybrid Algorithm 1 and 2

Outside:

1. Bairstow's Method

Distribution of Tasks

Name	Tasks
Mohamed Emary	AES, Secant
Mohamed Abdelfattah	SHA-1, (Diffie–Hellman **OR** Hybrid Algorithm 2)
Abdelfattah	SHA-256, False-Position
Dalia	RSA, Fixed Point
Sara	SHA-3, Hybrid Algorithm 1
Shrouk	DES, Trisection

Scheduled for a later time

1. Blowfish
2. Twofish
3. Triple DES
4. Bairstow's Method
5. **Factors that the affect performance of encryption algorithms**
6. Old Numerical Methods Algorithms
7. Prepare last year's numerical methods project so we can try it infront of Dr we will try it on Newton Raphson or Bisection problem from El-Ghamry slides and compare the table generated by our project with the table in the slides.

Very Important Notes

- **Use the presentation template from here.**
- We all should review **Radio Labeling**.
- Add the code of each algorithm to the github repo.