

CSU34031 Project 2

Securing Social Media Applications

The aim of this project is to develop a secure social media application for Facebook, Twitter, WhatsApp etc., or for your own social networking app. For example, your application will secure the Facebook Wall, such that only people that are part of your “Secure Facebook Group” will be able to decrypt each other’s posts. To all other users of the system the post will appear as ciphertext.

You are required to design and implement a suitable key management system for your application that allows any member of the group to share social media messages securely, and allows you to add or remove people from a group. You are free to implement your application for a desktop or mobile platform and make use of any open source cryptographic libraries.

Note

- You should provide a high-level description of the protocol design and implementation. A listing of the code should also be provided along with meaningful comments. You are required to submit a **single** PDF file containing the documentation and code using the Turnitin system.
- All submitted work **must** be original and your own. Please familiarize yourself with the College Plagiarism guidelines - <https://www.tcd.ie/undergraduate-studies/general-regulations/plagiarism.php>. Submissions that are similar to each other will result in zero marks being awarded to all parties that are identified.
- Late submissions will not be accepted unless accompanied by a medical certificate.
- This project is worth 10% of the marks and will be graded out of 100 marks.

Marks will only be awarded on foot of a demonstration of your work at the designated demo session. Demonstrations will take place during week twelve of the semester on Tuesday the 7th April 2020 between 10am-12pm in LG.12 in the O’Reilly Institute. You will be required to demonstrate a working prototype of your work, explain your design choices, talk through parts of your code which implement important aspects of your work, and answer any queries from the teaching assistants.