ALICE 2 (CHARLIE) - MISSION 3: CRACKING THE SECURE MESSAGES

---

50 minutes of gameplay [70/200 points]

Now, Charlie and Eve are officially a team. Both of you sign a memorandum of understanding (with Ethereum, of course) that you will work together and contrive to spy on Alice's messages. You heard from your informant that there will be a big "secret message" sending event soon. You want to obtain that message, and hopefully "blackmail" Alice and Bob. [Insert Evil laughter]. Good luck! **In this mission, you will work closely with Eve to crack the secure messages that is sent by Alice to Bob.**

This mission is divided into smaller tasks, which consist of compulsory and optional tasks. The compulsory tasks are marked with either [Checkpoint], [Final Task], or [Secret Task] flags, while the unmarked tasks are optional (if you are lazy). It is thus a priority to complete all the flagged tasks before the optional tasks, as one will not be able to revisit these tasks after the deadline. The compulsory tasks are very important for the upcoming missions. You are also strongly advised to plan the distribution of tasks among your teammates.

[10 points] [Checkpoint] Listen

> *The key to good eavesdropping is not getting caught.*
> *- Lemony Snicket*

Objective: Listen to everything that Alice says to Bob, including text messages and basis choices.

Point allocation scheme:

- [Max] points after completion of the mission.

Step by step walkthrough:

1. We will figure this as we go on.

[10 points] Message encryption handout

> *Privacy and encryption work, but it's too easy to make a mistake that exposes you.*
> *- Barton Gellman*

Objective: Complete the Message Encryption handout. No cheating or copying from Eve allowed [insert stern warning].

Point allocation scheme:

- Based on the number of correct responses in the handout.

Note: Only do this when there is free time or when there is a member in your group who happens to be free.

[10 points] Our setup handout

> *All experimentation is criticism. If an experiment does not hold out the possibility of causing one to revise one's views, it is hard to see why it should be done at all.*
> *- Sir Peter B. Medawar*

Objective: Complete the Our Setup, `Bandwidth` handout. No cheating or copying from Eve allowed [insert stern warning].

Point allocation scheme:

- Based on the number of correct responses in the handout.

Note: Only do this when there is free time or when there is a member in your group who happens to be free.

[20 points] [Final Task] Listen and collaborate

> *Alone we can do so little; together we can do so much*
> *- Hellen Keller*

Objective: Collaborate with Eve to decrypt the message that is sent by Alice to Bob. You will need to successfully decrypt the message at least once.

Point allocation scheme:

- [Max] points after completion of the mission.

Step by step walkthrough:

1. We will figure this as we go on.

[20 points] [Secret Task] Super secret messages, encrypted

> *Good luck!*
> *- Ancient Wisdom*

Alice is sending some super sensitive messages to Bob. Hack it! The GameMaster will tell you when the secret messages are being sent. After receiving all the message, **write it down** in the **super secret document** and pass it to the GameMaster after the conclusion of the mission.

Objective: Your team successfully decrypts all the secret messages that Alice sends to Bob.

Point allocation scheme:

- [Max] points if you successfully decrypt all the messages.

- A fraction of [max] points, proportional to the number of correctly decrypted messages.