Activity 1: Hex Hacking

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Group No: 27

Group Member:

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Part 0: Preparation

- Download "Activity 1 Resources" from CourseVille.

- In Part 2, each group is assigned to work with the files: [YOUR_GROUP_NO].bmp, and [YOUR_GROUP_NO].gif in "02 Pic" folder

- Answer the questions in the box given and submit this file (.docx format) to CourseVille.

Part 1: Text Representation

1. Open "sample_utf8.txt" in Notepad and see the content.

   - Open "sample_utf8.txt" in HexEdit.

   - Note that the first three bytes (from the address 000 - 002) are the BOM for text files encoding in UTF-8.

   - What is the UTF-8 code of the character A? How many bytes are used for the character?

41, 1 byte

   - What is the UTF-8 code of the white space character? How many bytes are used for the character?

20, 1 byte

   - What is the address of the character ข? What is its UTF-8 code?
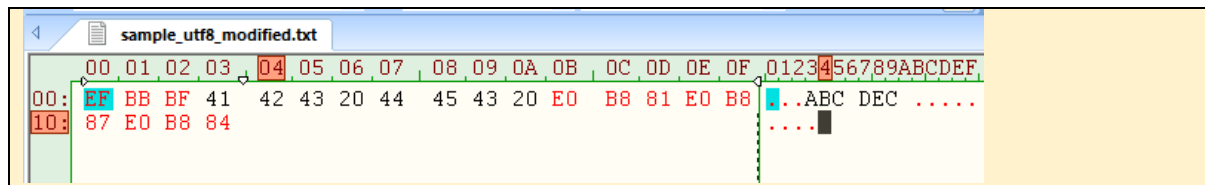
Byte number 14-16, UTF-8 code: E0 B8 82

   - Use HexEdit to replace the character ข with the character ง. Save the file as "sample_utf8_modified.txt". Open it in Notepad and see whether the content of the file is correct. How to do that?

Change E0 B8 82 to E0 B8 87

   - Make a screen capture showing the hex content of "sample_utf8_modified.txt".

Activity 1: Hex Hacking

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2. Consider the following Hex content of a file.

- What is the size (in bytes) of this file?

49 bytes

- Type in this Hex content into a new file. Save the file as "hamburger.txt"

- Open the file in notepad. What is the content? Use Google Translate to translate the content

    of the file to English. What does the file say?

I ate two big hamburgers