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| **Group No:** 03  **Group Member:**   1. Chandol Ngamcharoensathaporn 2. Chotpisit Adunsehawat 3. Chotiwit Fuengthanakul 4. Krittapas Rungsimantuchat |

# 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?

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| 41 / 1 byte |

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

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| 20/ 1 byte |

* + What is the address of the character ข? What is its UTF-8 code?

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| Utf-8 code = E0 B8 82 / address of character = 000E - 1000 |

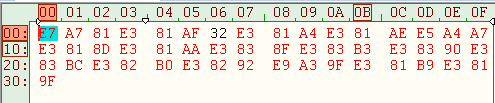
* + Use HexEdit to replace the character ข with the character ง. Save the file as “sample\_utf8\_modified.txt”. Open it in Notepad and see whether the content of the file is correct. How to do that?

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| Change Utf-8 code E0 B8 82 to E0 B8 87 to change ข to ง in this address |

* + Make a screen capture showing the hex content of “sample\_utf8\_modified.txt”.

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1. Consider the following Hex content of a file.



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

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| 822 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?

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| I ate two biggest humbergers |