**Encoding Words with Suffixes**

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@version Java19

**Description**

This is a console- based application that let the user to encode a text file into a numeric code based on a user specified encoding file or dictionary, and allow the user to decode that encoded file or any other encoded file back into a text format.

**To Run**

From the console: java -cp ./dsa.jar ie.atu.sw.Runner

Menu with 7 options will show up:

-Option (1) is to set a specific mapping file or dictionary, or the user can press 1 to use the default dictionary (encoding-10000.csv).

-Option (2) is to add the path of the file that the user wants to **encode**, this is needed step to encode a file, as if the user try to encode a file without going through this option the program will show an error.

-Option (3) is to add the path of the file that the user wants to **decode**, this is needed step to decode a file, as if the user try to decode a file without going through this option the program will show an error.

-Option (4) is to add the path of the file that the **encoded** file will be saved at, or press 1 to use the default one (./out.txt).

-Option (5) is to add the path of the file that the **decoded** file will be saved at, or press 1 to use the default one (./decode\_out.txt).

-Option (6) is to **encode** the chosen file in option 2, the user must add file path in option 2 before encoding or an error will show up.

-Option (7) is to **decode** the chosen file in option 3, the user must add file path in option 3 before decoding or an error will show up.

- (-1) To terminate the program.

**Features**

* Validate the added file paths and show an error message if the path is invalid.
* Use default files if the user skip choosing the mapping file or the output file.
* Load the dictionary into a hash map for faster run time, and the suffixes into a separate hash map.
* Encode the words into codes, and if the word is not found the program will split the word into 2 parts and try to find the word by the suffixes.
* Error messages and user friendly menu.
* Save the encoded and decoded files into a txt files.