Assignment 2

Consider a sequence of symbols as follows:

Symbol	Probability
a	0.12
e	0.42
i	0.09
o	0.3
u	0.07

1- Design your Arithmetic Encoder function on MATLAB to get the arithmetic code for the word "**iou**".

2- Design your Arithmetic Decoder function on MATLAB to decode [011000001] with three symbols.

Deliverables:

1- A README file or PDF that explains all the steps of your implementation in details.
2- All your code files MUST be submitted.

NOTES:

▪ Make sure your code is clear using meaningful variables' names and enough comments.
▪ You may check the built-in MATLAB functions for the Arithmetic Encoder and Decoder in the following links.

Encode sequence of symbols by arithmetic encoding - MATLAB arithenco (mathworks.com)

Decode binary code by arithmetic decoding - MATLAB arithdeco (mathworks.com)