

Q2

A = 10                      bit count = 2

B = 1111                   bit count = 4

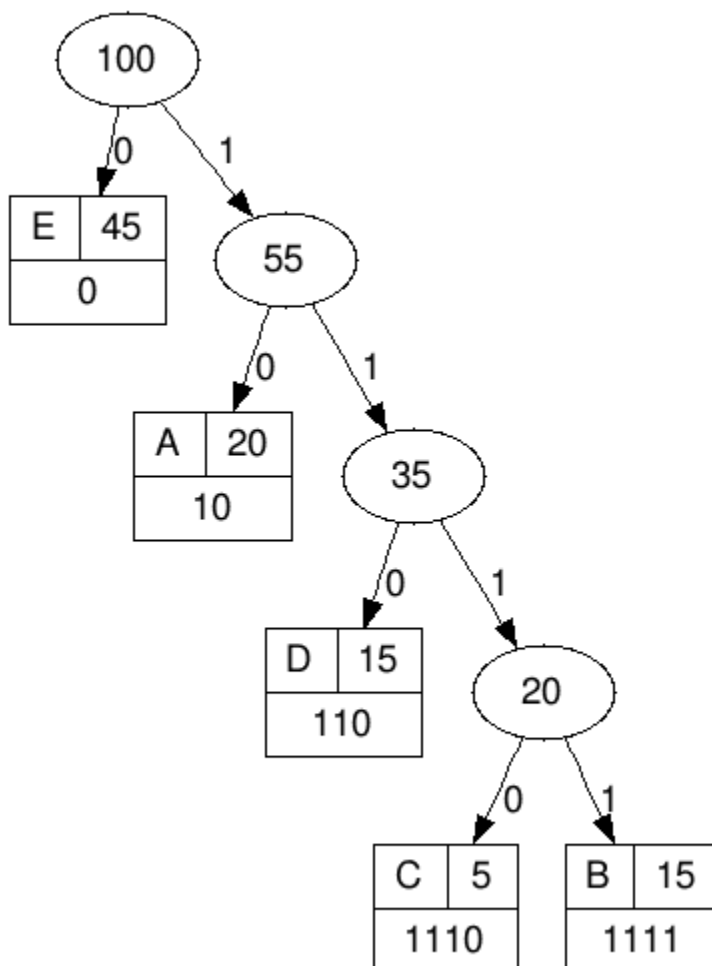
C = 1110                   bit count = 4

D = 110                    bit count = 3

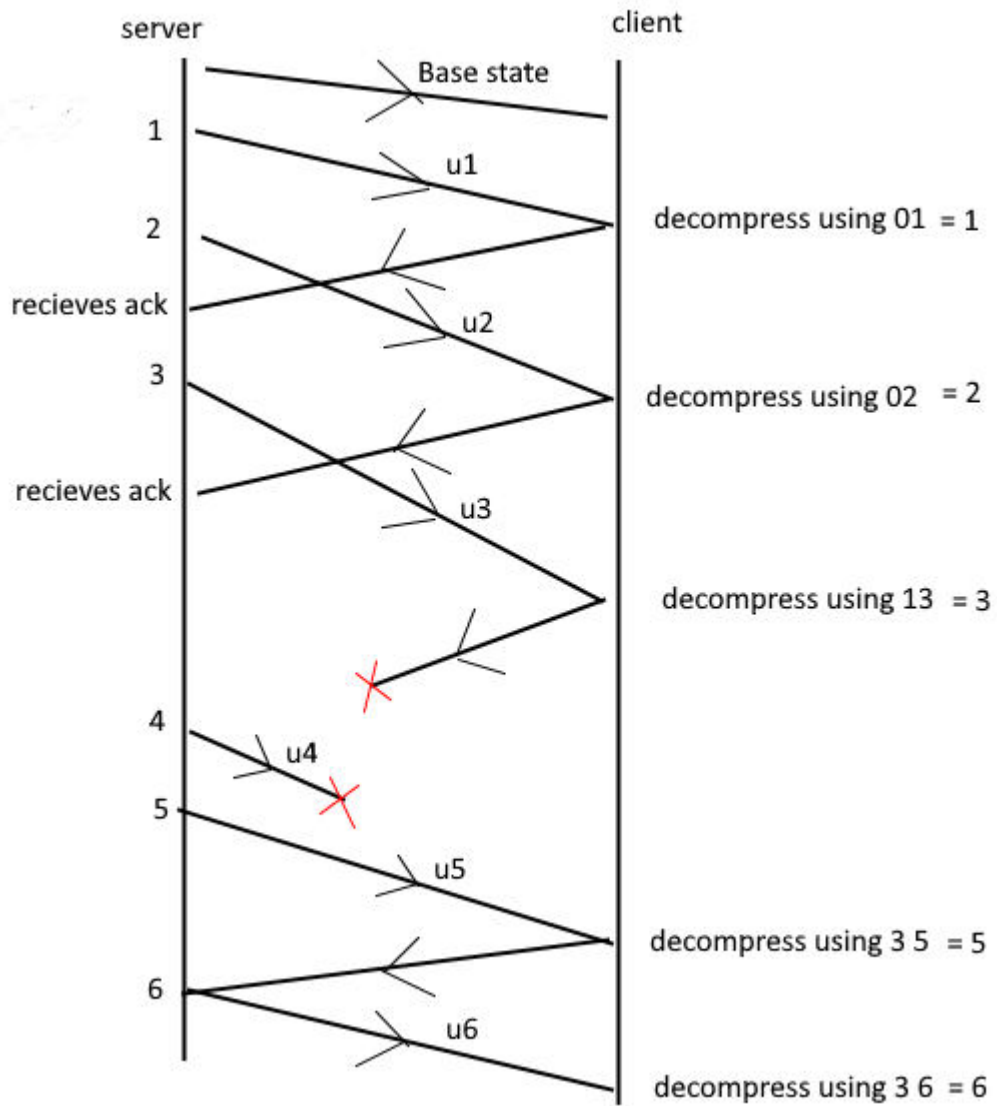
E = 0                        bit count = 1

Average bit count = 2.8

Huffman tree visualisation



Q3



Q4

BABAABAAA

Code = 10560

dictionary:

A = 0

B = 1

C = 2

D = 4

BA = 5

AB = 6

BAA = 7

ABA = 8

AA = 9

B = 1

BA not in dictionary

A = 0

AB not in dictionary

BA = 5

BAA not in dictionary

AB = 6

ABA not in dictionary

A = 0

AA not in dictionary