



Algorithms: Design
and Analysis, Part II

Huffman Codes

Huffman's Algorithm: A
More Complex Example

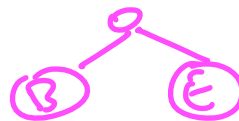
Input and Steps 1 and 2

Input:

Characters	A	B	C	D	E	F
Weights	3	2	6	8	2	6

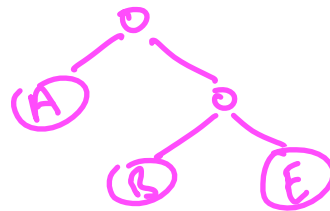
Step 1: merge B and E.

A	BE	C	D	F
3	4	6	8	6



Step 2: merge A and BE.

ABE	C	D	F
7	6	8	6



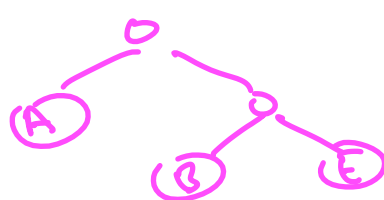
Steps 3 and 4

Step 3: merge C and F.

ABE
7

CF
12

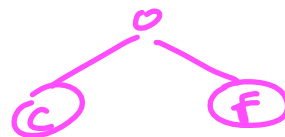
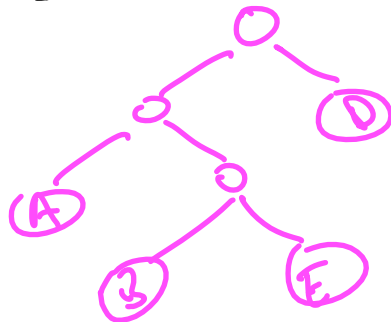
D
8



Step 4: merge ABE and D

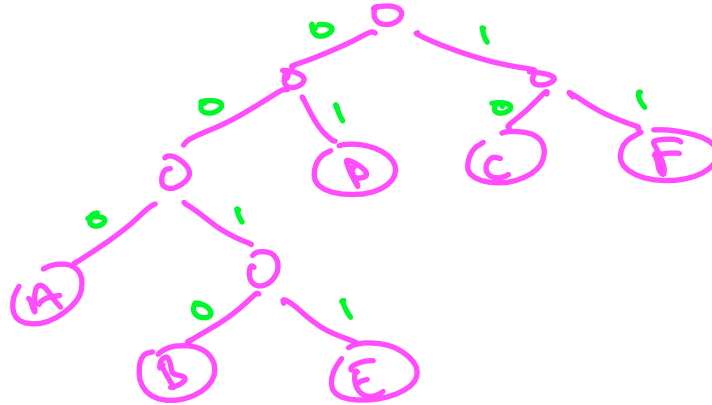
ABDE
15

CF
12



Final Output

Final tree:



Corresponding code :

A 000
B 0010
C 0011

D 01
E 10
F 11