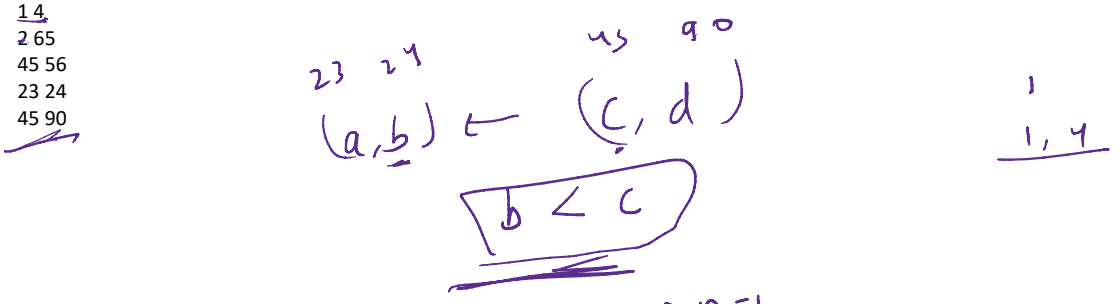
31 October

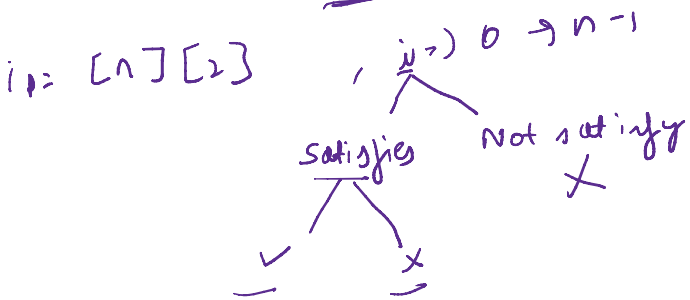
31 October 2022 21:17

5
1 4
2 65
45 56
23 24
45 90

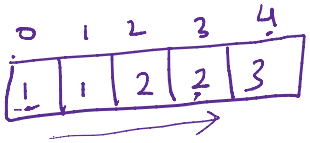
A pair (c, d) can follow another pair (a, b) if b < c, similarly in this way a chain of pairs can be formed.



1
1, 4



	0	1
0	1	4
1	2	65
2	45	56
3	23	24
4	45	90



i = 0 1 2 3 4

j = 3 2 1 0

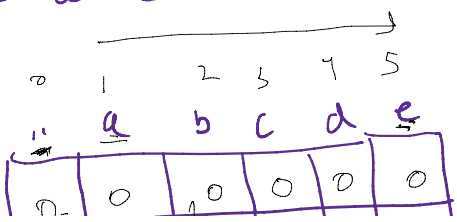
```
for(i = 0 → n-1) {
    temp = 2
    for( j = i-1 ← 0) {
        if ( arr[j][1] < arr[i][0] ){
            temp = max( temp, dp[j] )
        }
    }
    dp[i] += temp ;
}
```

LCS - (Return Lengths) :-

abcde =) > ace

ace =)

Tabulation



a b c d

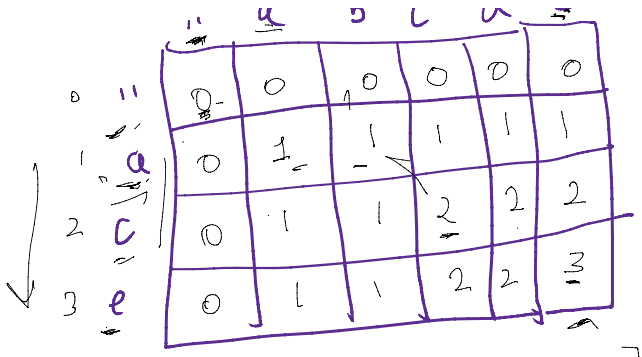
a c d

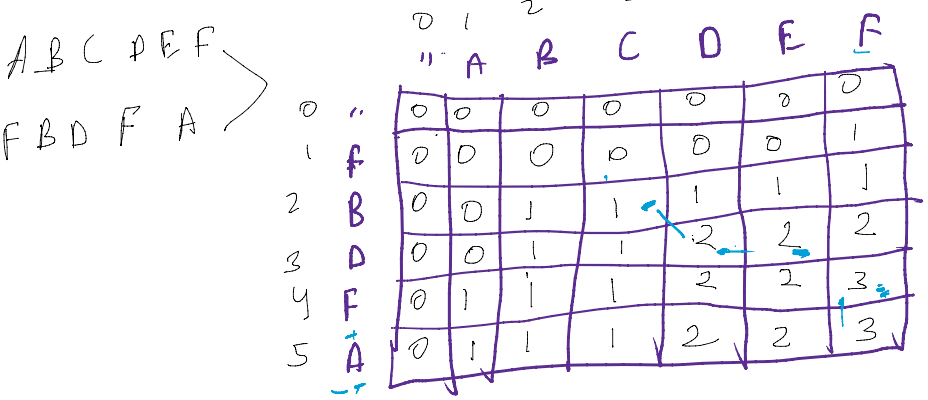
1, 0

a

" "

abcd





```
while(i>0 && j>0 && k>0){
if(str1.charAt(i-1) == str2.charAt(j-1)){
    temp[k-1] = str1.charAt(i-1);
    k--;
    i--; j--;
}
else if (dp[i-1][j] > dp[i][j-1]) i--;
else j--;
}
```

A D B E C F

D A E B F C

Longest Palindromic Substring

A B C C B D

D B C C B A

B C C B