

Merge Strings ~~Alternately~~  
Alternately

Input: word1 = "abc"  
 word2 = "pqr"  
 Output → apbqcr

Steps

1) Two pointers Approach

abc  
 ↑  
 x=0

pqr  
 ↑  
 y=0

2) Use StringBuilder (to lower Time Complexity)  
to store result

3) while (x &lt; word1.length() &amp; y &lt; word2.length())

```
4) result.append(word1.charAt(x));
   result.append(word2.charAt(y));
   x++;
   y++;
```

5) Once the while loop exits, there are chances that either word1 or word2 is left untraversed

```
while (x < word1.length()) {
    result.append(word1.charAt(x));
}
while (y < word2.length()) {
    result.append(word2.charAt(y));
}
```

6) Return result.toString();