

Strings Topic

What is String?

→ String is a sequence of characters. It is immutable.

→ immutable → Which means once you created then values can't be changed.

Why immutable?

→ Due to security reasons.

What is concatenation?

Adding two string's

→ length() → we want to find the length of the string then we use this.

→ charAt() → we want to call particular element by applying index number in fun we get.

Q.) Palindrome



"race car" → To reverse → ~~face car~~

logic

i) for (int i=0 to str.length()/2)

 ii) if (str.charAt(i) == str.charAt(n-1-i))

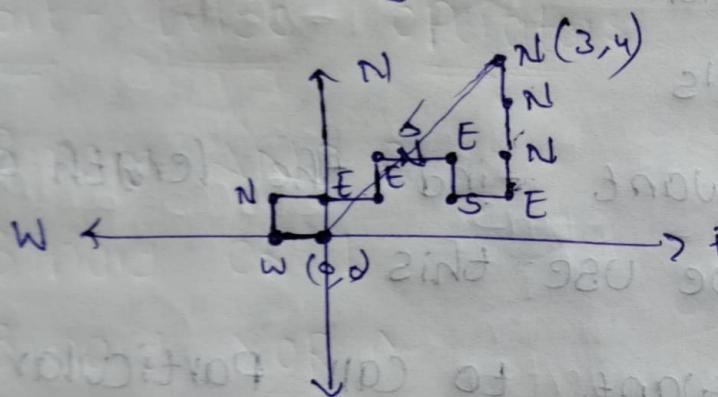
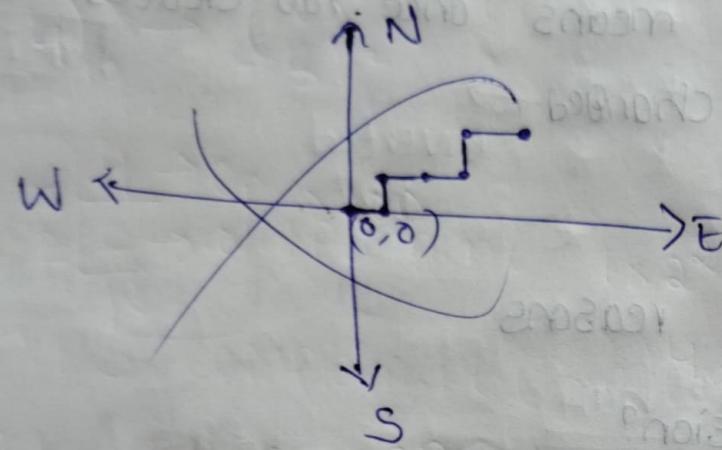
race car
0123456

$n = 7$

2) Shortest Path

contain 4 directions (E, W, N, S)

"WNEENESENN



$$\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

$$= \sqrt{(3-0)^2 + (0-4)^2}$$

$$= \boxed{9 + 16}$$

$$= \sqrt{25} = 5$$

Q3) Largest String

"apple", "Mango", "banana"

Str1. compareTo(Str2)

↓

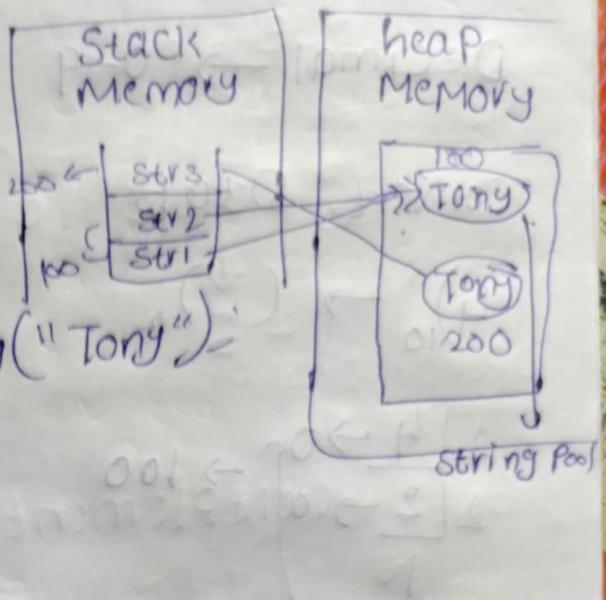
0: equal

≤ 0 : - ve

>0 : +ve $St1 > St2$

what are strings?

String Str1 = "Tony";
String Str2 = "Tony";
String Str3 = new String("Tony");
Interning



String builder

It is a type of class to create mutable strings

~~Compare~~ → in java strings are immutable you can not change them after creation

→ But string builder allows modifying strings without creating new objects, making faster and memory-efficient, especially in loops

Q5) String compression

"aaaaabbbbddd" → "a4b3d2"

logic

for (int i=0 to str.length())
 ch(i)
 count +=

while (repeat){

 count++

 y

 count > 1 → no
 count = 1 → x