NAME: _____

TRISECT INSTITUTE

J2C1

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Job Oriented Java

STRING: COMMON PROBLEMS 2

Shifting Characters in String

For shifting or rearranging characters in a string, we have to make a new string (initially empty) and add characters according to desired pattern.

Example 1: Shift all non-alphabets in string to the end

```
1   String str = "c#a5t";
2   int len = str.length();
3   String strAlpha = "";                    //to hold alphabets
4   String strOther = "";                    //to hold non-alphabets
5   for(int i = 0; i < len; i++)
6   {
7       char ch = str.charAt(i);
8       if(ch >= 'a' && ch <= 'z')
9       {
10          strAlpha = strAlpha + ch;
11      }
12      else
13      {
14          strOther = strOther + ch;
15      }
16  }
17  strAlpha = strAlpha + strOther;          //joining two strings together
18  System.out.println(strAlpha);
```

Output:

cat#5

Dry Run:

Before loop	str = "c#a5t" len = 5 strAlpha = "" strOther = ""			
loop variable	**ch**	**if**	**else**	**Print**
i = 0	'c'	⇨ true ⇨ strAlpha = "" + 'c' ⇨ strAlpha = "c"	-	-
i = 1	'#'	⇨ false	⇨ strOther = "" + '#' ⇨ strOther = "#"	-
i = 2	'a'	⇨ true ⇨ strAlpha = "c" + 'a' ⇨ strAlpha = "ca"	-	-
i = 3	'5'	⇨ false	⇨ strOther = "#" + '5' ⇨ strOther = "#5"	-

i = 4	't'	⇨ true	-	-
		⇨ strAlpha = "ca" + 't'		
		⇨ strAlpha = "cat"		
i = 5	-	-	-	-
Outside loop		⇨ strAlpha = "cat" + "#5"		cat#5
		⇨ strAlpha = "cat#5"		

Problem 1	Give output of following code.

```
1   String name = "1D0I#L0L#I";
2   char hash = '#';
3   String strA = "";
4   String strN = "";
5   String strH = "";
6   int len = name.length();
7
8   for(int i = 0; i < len; i++)
9   {
10      char zch = str.charAt(i);
11      if(zch == hash)
12      {
13          strH = strH + zch;
14      }
15      if(zch >= 'A' && zch <= 'Z')
16      {
17          strA = strA + zch;
18      }
19      if(zch >= '0' && zch <= '9')
20      {
21          strN = strN + zch;
22      }
23  }
24
25  strA = strA + strH + strN;
26  System.out.println(strA);
```