not included in BTT.

- Hashmap & HashSet — 31st Jan
- Memory Management — 2nd Feb
- Class & Object — 4th Feb

Beginner Transition Test → 5th feb 9:00 AM

End Date → 10th feb 9:00 PM

Syllabus → Inp / Output → Strings

No. of questions → 3 or 4

Duration → 90 minutes

Easy

Ques. Given a string, check whether it is palindromic or not

str	ans
level	true
madam	true
malayalam	true
dad (rev [dad])	true
papa [apap]	false

1. find the reverse
2. compare with original string

Ques. Given a string which contains only uppercase characters (A-Z), return the lowercase version of the string.

string		ans
HAPPY	→	happy
BAD	→	bad

ASCII

A - Z → 65 to 90

a - z → 97 to 122

(A) 65 + 32 → 97 (a)

(B) 66 + 32 → 98 (b)

A B C D
0 1 2 3

```
String lowerCase (String str) {
    String ans = "";
    for (int i = 0; i < str.length(); i++) {
        char ch = str.charAt(i); // 'A'
        char lower = (char) (ch + 32); // 'a'
        ans = ans + lower;
    }
    return ans;
}
```

'A' + 32 ; → 97

→ addition

convert int → char (typecasting)

str = "ABCD"
0 1 2 3

ans = ""

i	ch	lower	ans	i++
0	'A'	'A'+32 → 'a'	"" + 'a' → "a"	1
1	'B'	'B'+32 → 'b'	"a" + 'b' → "ab"	2
2	'C'	'C'+32 → 'c'	"ab" + 'c' → "abc"	3
3	'D'	'D'+32 → 'd'	"abc" + 'd' → "abcd"	4
4	→ break			

ans ⟶ "abcd"

Ques. Given a string (lowercase characters) return the count of vowels and consonants.

'a' → 'z'

vowels → 'a', 'e', 'i', 'o', 'u'

String →		vowels	consonants
	apple	2	3

[2, 3]

Two ways -

① return an int[] of size 2.

② return the count of vowels and then count of consonants = n - vowels

String → elephant
0 1 2 3 4 5 6 7

vowels = 3 consonants = 5

```
int countvowels (String str) {
    int count = 0;
for (int i = 0; i < str.length(); i++) {
    char ch = str.charAt(i);
    if (ch == 'a' || ch == 'e' || ch == 'o' || ch == 'i' || ch == 'u') {
        count ++
    }
}
return count;
}
```

Ques. Given a string & a character, replace all the occurrences of that character with $.

str	character	ans
Apple	p	A$$le
Character	c	Chara$ter

Character → $

check whether the character matches
- ↳ Yes → replace with $
- ↳ No → simply add to string

Doubt

Restart
0 1 2 3 4 5

String replace stri str) {

char x = str.charAt(0);

String ans = "" + x;

for(int i = 1; i <= str.length(); i++) {

}

}

Rounded Division

$2.4 \rightarrow 2$

$2.5 \rightarrow 3$

$2.67 \rightarrow 3$

$-2.4 \rightarrow -2$

$-2.5 \rightarrow -3$

$-2.67 \rightarrow -3$