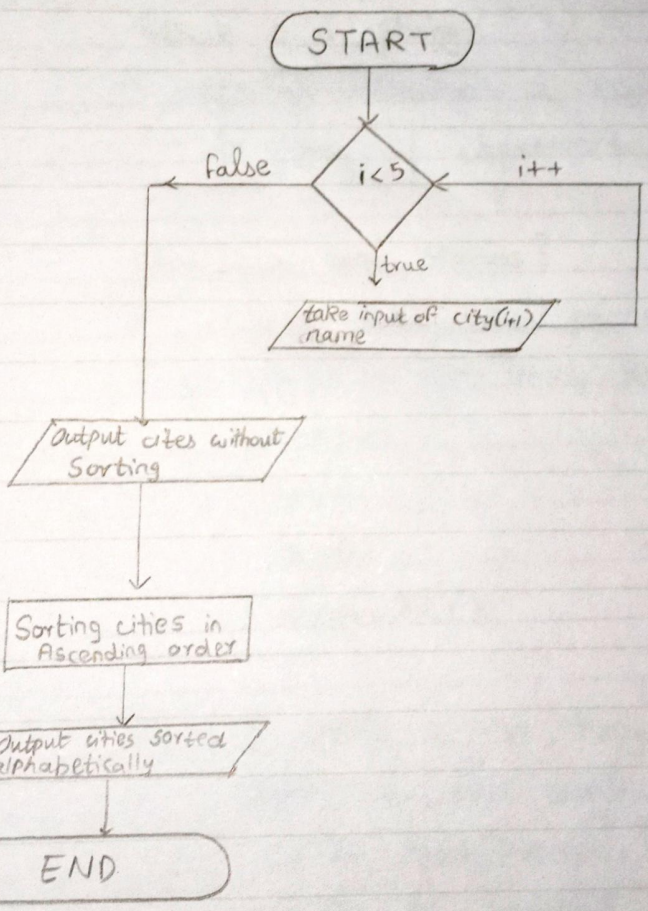
Practical No. 04

Aim: Create, debug and run programs based on String and StringBuffer.

Flow chart:



Code 1

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Aim: Create, debug and run programs based on String and StringBuffer.

Theory:

What is a String?

→ • Strings represent a sequence of characters.
• An array of characters works same as Java string.

Why use Java Strings?

→ Java String class provides a lot of methods to perform operations on ~~str~~ string such as: compare().

- compare()
- concat()
- length()
- compareTo()
- equals()
- split()
- replace()
- substring()

How to create a new string object?

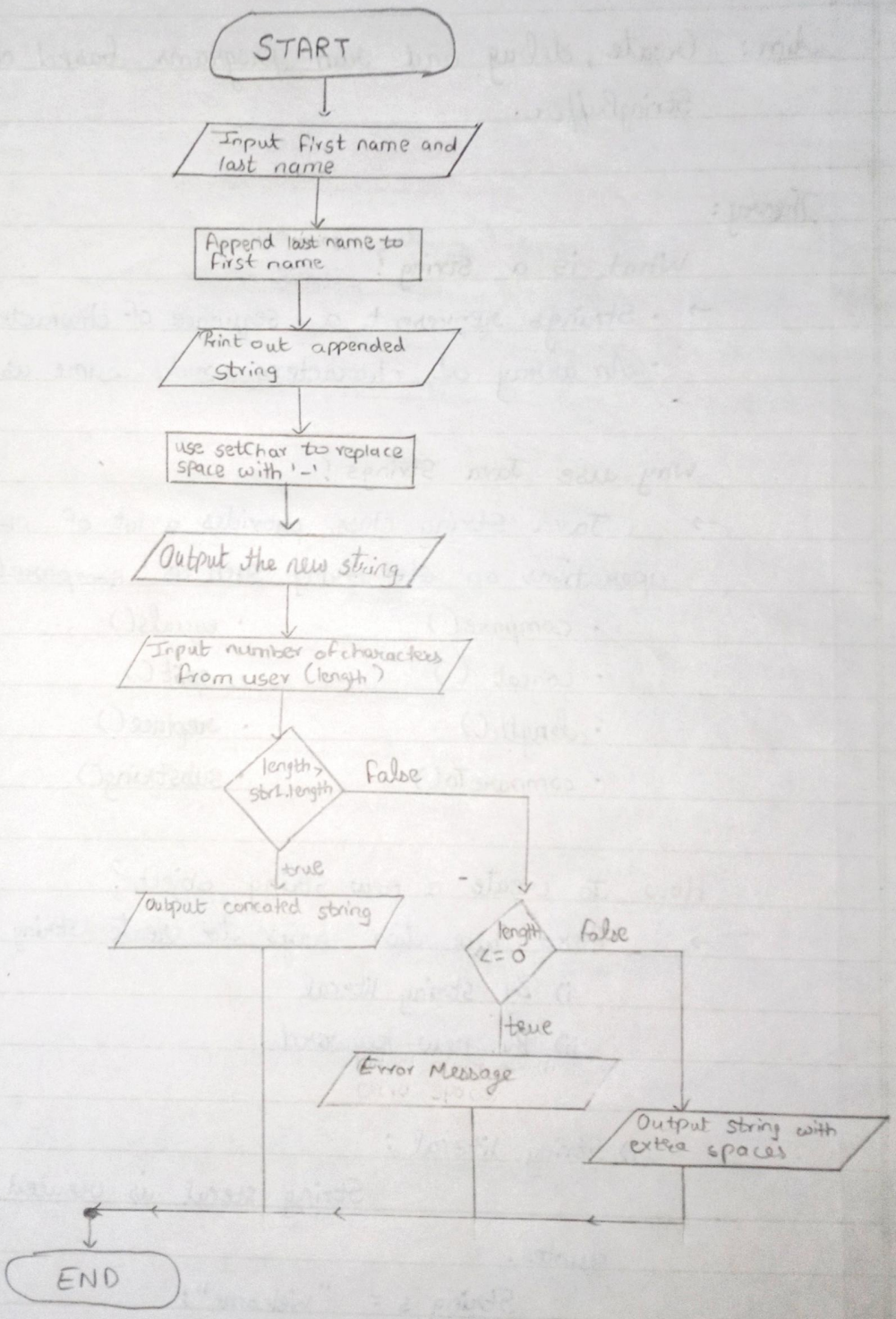
→ There are two ways to create String object:

i) By string literal
ii) By new keyword.

i) String literal:

String literal is created by using double quotes.

```
String s = "Welcome";
String str = "Pratyay";
```


START
Input First name and last name
Append last name to first name
Print out appended string
use setChar to replace space with '-'
Output the new string
Input number of characters from user (length)
length > str1.length
false
true
output concated string
length <= 0
false
true
Error Message
Output string with extra spaces
END

Code 2

ii) By new keyword :

```
String s = new String("Pratyay");
```

In this case, the Java Virtual Machine will create a new ~~strin~~ string object in ~~norma~~ ~~no~~ normal heap memory, and the literal "~~Welcome~~" "Pratyay" will be placed in the string constant pool. The variable s will refer to the object in a heap.

StringBuffer class :

- StringBuffer is a peer class of String.
- While String creates of fixed length, StringBuffer creates String of ~~flexing~~ flexible length that can be modified in terms of both length and content.

Constructor	Description
StringBuffer()	It creates an Empty String buffer with initial capacity of 16
StringBuffer(String)	It creates a String buffer with the specified string.
StringBuffer(int)	It creates an empty String buffer with the specified capacity as length

Conclusion:

Hence, I created, debugged and executed programs based on String and StringBuffer. I also learnt about the concepts of Strings and StringBuffer.