Day 11 9 07.05.2023 STRING: - String is a non-primitive datatype. Cact as a class and also a datatype.

- String is a sequence of characters
But in java string is an object that represents a
Sequence of characters - String enclosed with double quotes and works on the principles of index basis (starts from 0-n-1)

- String is a class and it is in java larg package. Additionally most of preactive methods and classes in java from java larg hence explicit import does not happen. - The jour larg string dass is used to create a string object.

- String values are stored in string constant pool (SCR). SCP is a type of memory which is whated by heap momory.

- string is literal and immutable

There are two ways to create string object.

(- by string literal)

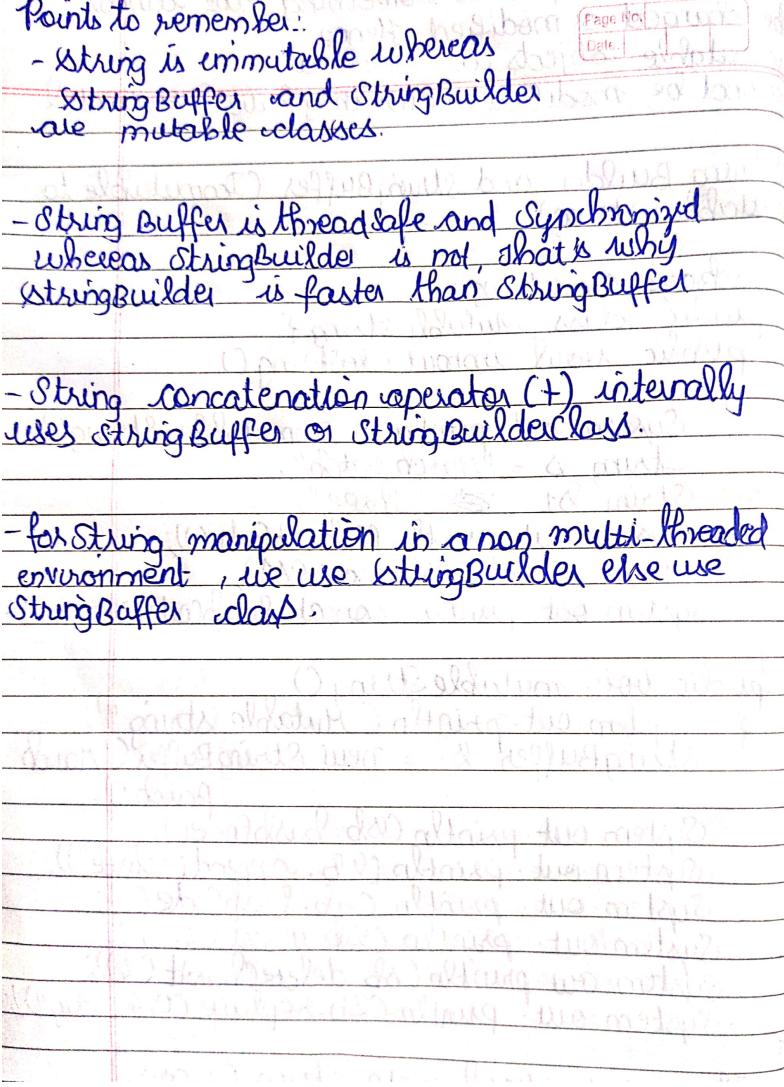
- by new keyword)

String literal:
- Java extring literal is ortale
String literal:  - Java Estring literal B oreated  by using clouble aux les.
For example:  String is = "welcome";  String is = "welcome";  Sach time you create a istring literal, the JVM  chicks the "string constant pool; a reference  to the pooled instance is returned  in the pooled instance is returned
String is = wellting literal, the reperse
Each time you constant pool
to the pooled instance is returned
if string is the pooled instance. The pool
a referenced to the pooled instance is a the pool of the string is aloesn't exist in the pool onewstring instance is created and placed in the pool.
a new string instance is recently
in the pool.
in the pool.  for example:  string b = "welcome"; 11 Dt. obes  string b2 = "welcome"; 11 Dt. obes
String 62 - "Welcome
not create new instance.
By new keyword: String of new String ("welcome");
The string can also be declared using new operator i.e. dynamically allocated
i.e. duranically allocated
a con a lating and disamically
allocated they are assumed a new memory
location in beap - The string will not be
In case of String are dynamically ovocated they are assigned a new memory location in heap. The String will not be added to string constant pool.
Example program for string literal:
- CANTINION HOS INC.
public class String methods; public class String Methods? public static void main (String
public static void main (Strim
(J.augs)

{ string & = "welcome";	
string &1 = "welcome";	
etring 102 = "Java";	
- otario 183 = "Java":	
and or inter (A. harhonde ()):	
System. out- Println (181. hashcoole());	
Justem out println (D3. hashCode());	
System. out. Println (S1. hashcoole()); System. out. println (S3. hashCoole()); System. out. println (S2. hash(ode());	1
STRING METHODS:	
toUpperCase C), to hower Case (), Starts With ()	)
index of () last Index Of ()	
counts I counts I apone Case () length ()	
contains (), concat(), charat (),	
tocharAtray(), replace (), is Empty (), is E	1
isBlank(), split(), trum(), substring(	)
package prostring:	
public static upid main Estring CJargs	)
public class StringConcepts of public static word main Cstring CJargs, of String s = "march Batch Three";	
- Studens	_
String 183 = 11 ";	
- It was a state of the control of the control	<u>-</u>
intlength = (s. length();	7
System.out.println(length);	
string upper = ss.touppercase();	
System. but println Cuppers:	
the discourse of the state of	
string lower = 18. Lohowerlase(); System out println Clower);	
system out printen (nower)	1
System-out-printeln (s. Stoutswith (m));	1
System.out-println(s. Stoutswith ("m")); System.out. println(s. endswith ("e"));	

Oystem. out. Println (& intex Of ('a'));
Oystem. out. Println Cs. indexOf('a')); West to right Date
ogstem out println (18. last Index of (1a))
System. Out. println (s. last Index of (a')); // right to left
- 19 - 10 - 11 - 12 - 13 - 14 - 14 - 14 - 14 - 14 - 14 - 14
System. out. println (b. last IndexOf ('a')); System. out. println (b. equals (b1)); System. out. println (b. equals I gnove Case (b1));  (will not considered
Oystem out phinkln (b. equals (b1));
System out printin Cs equals I grove case (BI)
will not considered
upper and lower cose
System. out. println (15-contains ("march")); String concat = (5-concat (151); System. out. println (concat);
String concat = S. concat (S1);
System out println (concat);
char charAt = (8. charAt (7); System. out. println (charAt);
System. out- println (charAt);
Carlo Cla and Clamps of 11 11 may 11 16
System-out-println (15. replace ("march", "may"); System-out-println (153. iscmpty ()); //considerspace System-out-println (153. isBlankic)); //desnot consider space.
Bystem out printin (05, 10 cmpty C), 11 corbinoque
oystem out-printin (03.1818 xW/K/C)), 11.0000
while control spice.
2000 000 - 10 (1100)
System out printle (s);
austem out printin (b. Mun)
System out println (s. kubbtzing (3)); System out println (s. kubbtzing (3,10));
ogsten out prince (s. 200)
Transtable String:
Innutable string:
Immutable string:  - Alstring is an immutable object  en hich means we cannot change them after  creating the objects whenever we change  any string, a new instance is a realed.

Immil	able refers to bomething that cannot
he cho	able refers to something that cannot unged or modified. Hence, able objects were cones that
uni mut	the objects care iones that
Uninui	be modified rafter they have been created
Janna	A second
	01 - 1 - 1 - 0 - 20 - 1 - 0 0 1
Strin	Builder and StruigBuffer (Immutable to le Struig)
mulab	le strug)
back	rage org. string,
pub	lie class Mutable Strong {
401	lie class Mutable String ( blie void immutable String ()
P	houston (+) ratory to water must fill
7	System out println ("Immutable String");  String & = "March Batch";
	Strin 15 = "March Batch";
	String 101 = "Three";
	Sustan All Drintin (S. mashwall)
	System out printle (concat hashcode());
	Oddren . burns .
3.0	lie void mutable String () System out printla ("Hutable String"); String Buffer Sb = new String Buffer ("March Botch");
pluo	at vous much c"Hutable (string")
	obligation who - new String Buffer ("March
	Botch");
	System out printly (&b. hash Code()); System out printly (&b. append ("Ihree")); System out printly (&b. hash Code ()); System out printly (&b. hash Code ()); System out printly (&b. delete (horst (2)); System out printly (&b. delete (horst (2)); System out printly (&b. replace (0, 4, "rby"));
	Outen out printer (4b append ("Three"));
-	System out printer (Sib. boxb Code ());
	Bystem out protein carbinate (2, 'r');
	System out printy (2);
	System. Out. prunten (op. aexas applace (0,4, "May"));
0	system out. printing coordinate
3,00	in alouis unid mala (String [7,000)
just	u static void main (String [] orgs)  MutableString ms = new Kutable String ();  ms. immutableString ();  ms. mutableString ();
7	TUTASHORNING INS = INCO
	ms. immulable ching ();
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NOTE	Bay - 11
	OIRING:
	Tobject refer the bequere of
	characters. under based.
	Blung & = "academy" = (string lileral)
	A LIBROUND CI LOURING TO COMPANY
	Sarademy oto n-1
	2 3 4 5 6
- Aria	Java lang
Jan	String is literal and immutable.
	and the state of t
	Strong is = new Strong (" march Batch Three");
- 7 <b>3</b>	1040(S);
	Byso CSI) >
	Heap -> String memory as object
	(String constant) -> Bhring literal memory
	( constant) - String literal memory
	hoshCode () is > method:
The state of the s	( l. l. a
	& hash code (); -> reterive address.
	of variable.
	Uppercase:
	string u= 8. toUpper (ase():
43.74	Sypo(u): Med and Syponia
	And read to the first of the second of the s
	Bright - St king inthooks return type?
	and the state of t
	(abs: Kood ax rosses
	((1) thought the 12 ) do 8
	CHEZ SACLES HANNE NACKAMAZI

1) case constive & starts with ("); -> String starts with. B, endswith ("e") ; > Btome ends with B. hascode (); -> find length find address 15. length (); > findlength & to Upparare (); > lower to upper & folowercase (); -) upper D. indexed (16); -S. last Indexed ('a') & last undex of a S. equals (SI) -> check is two strains are equal 15 equals Ignore (ase (S)); -) care bensifting -no B. contains ("swite"); -) check if word is found = & . concat(&1); > concat S. charAt (4); > Leturn 4th characterin String. & replace ("March", "May"); &. us Empty () > false; (S. iiBlank () > frue. & trum & unwanted space remove. S. Substrung (3) > remove begin and print from 3rd under. S. Substrung (3,18); -> storts with 3 rand ends with n-1 innutable String Buffer String Builder "March Batch StringBuffer So = new String Buffer 86. append ("Three"); Syso (bb) syso ( bb. hashlode): Syxo (&B. deletichant (2)); Syxo (&B. invert (2, 1,1))

Buffer

string Builde - Bynchronized thread sofe

String Builde - Asynchronized Non-thiead

Safe