 *DEPARTMENT OF INFORMATION TECHNOLOGY*

Experiment No.6

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| **Experiment Number** | **6** | |
| **Experiment Title** | **StringBuffer Methods and Palindrome** | |
| **Resources / Apparatus Required** | Java Developer Kit , Command Prompt | Standard PC with Windows 7,8 or 10 |
| **Objectives**  **(Skill Set / Knowledge Tested / Imparted)** | To Learn the use of StringBuffer class in java programs. | |
| **Theory** | **Java StringBuffer** class is used to created mutable (modifiable) string. The StringBuffer class in java is same as String class except it is mutable i.e. it can be changed.  Important Constructors of StringBuffer class   1. **StringBuffer():** creates an empty string buffer with the initial capacity of 16. 2. **StringBuffer(String str):** creates a string buffer with the specified string. 3. **StringBuffer(int capacity):** creates an empty string buffer with the specified capacity as length.   Important methods of StringBuffer class   1. **public synchronized StringBuffer append(String s):** is used to append the specified string with this string. The append() method is overloaded like append(char), append(boolean), append(int), append(float), append(double) etc. 2. **public synchronized StringBuffer insert(int offset, String s):** is used to insert the specified string with this string at the specified position. The insert() method is overloaded like insert(int, char), insert(int, boolean), insert(int, int), insert(int, float), insert(int, double) etc. 3. **public synchronized StringBuffer replace(int startIndex, int endIndex, String str):** is used to replace the string from specified startIndex and endIndex. 4. **public synchronized StringBuffer delete(int startIndex, int endIndex):** is used to delete the string from specified startIndex and endIndex. 5. **public synchronized StringBuffer reverse():** is used to reverse the string. 6. **public int capacity():** is used to return the current capacity. 7. **public void ensureCapacity(int minimumCapacity):** is used to ensure the capacity at least equal to the given minimum. 8. **public char charAt(int index):** is used to return the character at the specified position. 9. **public int length():** is used to return the length of the string i.e. total number of characters. 10. **public String substring(int beginIndex):** is used to return the substring from the specified beginIndex. 11. **public String substring(int beginIndex, int endIndex):** is used to return the substring from the specified beginIndex and endIndex. | |
| **Program & output** | import java.util.\*;  class AllFunc  {  public static void main(String[]args)  {  StringBuffer a = new StringBuffer(args[0]);  System.out.println("Length : "+a.length());  System.out.println("Capacity : "+a.capacity());    a.append(" <---- This is Your String") ;  System.out.println("New String : "+a.toString());  System.out.println("Length : "+a.length());  System.out.println("Capacity : "+a.capacity());    System.out.println("Setting Capacity to 100");  a.ensureCapacity(100) ;  System.out.println("Capacity : "+a.capacity());    a.append(" <-------- Random Text For Appending Here -------->");  System.out.println("New String : "+a.toString());  System.out.println("Length : "+a.length());  System.out.println("Capacity : "+a.capacity());    a.reverse();  System.out.println("Reverse : "+a.toString());  a.reverse();    a.delete(7,19) ;  System.out.println("OMG Index 7 to 18 just got toasted : "+a.toString());    a.deleteCharAt(6) ;  System.out.println("The Poor Char at index 6 is long dead : "+a.toString());    a.replace(2,8,"<--- This is my Area --->") ;  System.out.println("Index 2 to 7 -\_- : "+a.toString());    }  }  C:\Users\Ashu\Desktop\Coding\Codes\Java Programs\Screen Shots\StrBufAllFunc.png  import java.util.\*;  class Palindrome  {  public static void main(String[]args)  {  StringBuffer sb = new StringBuffer();  sb.append(args[0]);  sb.reverse();  String rev=sb.toString();    if(args[0].equalsIgnoreCase(rev)==true)  System.out.print("Palindrome\n") ;  else  System.out.print("Not Palindrome\n") ;  }  }  C:\Users\Ashu\Desktop\Coding\Codes\Java Programs\Screen Shots\StrBufPal.png | |
| **Conclusion** | Hence StringBuffer class can be used to perform various operations. | |