* Resulting data type after arithmetic operation.

following table summaries the resulting data types after arithmetic operation on them.

```
R = b + 5 -> int
R = s + i -> int
R = l + f -> float
R = i + f -> float
R = c + i -> int
R = c + s -> int
R = l + d -> double
R = f + d -> double
```

where,
b -> byte f -> float
s -> short d -> double
i -> integer l -> long
c -> character.

String class

-> The String class in java is used to represent a sequence of characters. It is a commonly used class in java and offers many useful methods that allow developers to manipulate strings in various ways.

-> A String is instantiated as follows,

```
String name = new String("Hellow");
```

-> String is a class but can be used like a data type

String name = "Hellow";

-> Strings are immuteble and cannot be changed.

* String methods,

1. length() : Return length of the string.

2. charAt(int index) : Return the character at the specified index.

3. substring(int beginindex) : Return a substring that starts from the specified index.

4. substring(int beginindex) int endindex) : Returns a substring that starts from the specified begin index and ends at the specified end index.

5. equals(object anotherString) : checks if the string is equal to another string.

6. equalsignoreCase (String anotherString) : checks if the string is equal to another String, ignoring case.

7. compareTo(String anotherString): Compares the String with another String and return an integer value.

8. indexOf(int ch): Returns the index of the first occurrence of the specified character in the String.

9. lastIndexOf(int ch): This returns the index of the last occurrence of the specified character in the String.

10. contains(CharSequence): checks if the string contains the specified sequence of characters.

11. replace(char oldchar, char newchar): Replaces all occurrences of the specified character with another character.

12. toUpperCase(): Converts the String to uppercase.

13. toLowerCase(): Converts the string to lowercase.

14. trim(): This removes whitespace from the beginning & end of the String.