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- cant use non-static obj. in static context, following is wrong (compiler error, a is non-static). Can use static in non though.

```
int a =5;
static int b = a;
```

- cant initialize static var in non-static method.
- use non-stat var in static meth. - making obj.
- all variables in static meth. - static by default
- during overloading method, access privi. should be same or higher
- same with overriding
- classes can only be public or default. inner classes can be anything though.
- hascode() - $S[0] * 31^{(n-1)} + S[1] * 31^{(n-2)} \dots$

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Character

- getNumericValue(c)
- isLetter(c)
- isDigit(c)
- isUpperCase(c)
- toUpperCase(c)
- isWhitespace(c)

Integer

- parseInt(S)
- valueOf(int i)

String

- charAt(i)
- concat(S)
- contains(S)
- charAt(int index): returns the character at the specified index in the string. length(): returns the length of the string. substring(int beginIndex, int endIndex): returns a substring of the string. indexOf(int ch): returns the index of the first occurrence of the specified character in the string. startsWith(String prefix): checks if the string starts with the specified prefix. endsWith(String suffix): checks if the string ends with the specified suffix. toUpperCase(): returns a new string with all characters converted to uppercase.

`toLowerCase()`: returns a new string with all characters converted to lowercase. `trim()`: returns a new string with leading and trailing whitespaces removed.

list all important String, StringBuffer, integer and character methods

Here are some important methods of String, StringBuffer, Integer, and Character classes in Java:

String class methods:

- `charAt(int index)`: returns the character at the specified index in the string.
- `length()`: returns the length of the string.
- `substring(int beginIndex, int endIndex)`: returns a substring of the string.
- `indexOf(int ch)`: returns the index of the first occurrence of the specified character in the string.
- `startsWith(String prefix)`: checks if the string starts with the specified prefix.
- `endsWith(String suffix)`: checks if the string ends with the specified suffix.
- `toUpperCase()`: returns a new string with all characters converted to uppercase.
- `toLowerCase()`: returns a new string with all characters converted to lowercase.
- `trim()`: returns a new string with leading and trailing whitespaces removed.

StringBuffer class methods:

- `append(String str)`: appends the specified string to the buffer.
- `insert(int offset, String str)`: inserts the specified string into the buffer at the specified index.
- `replace(int start, int end, String str)`: replaces the characters between the specified indices with the specified string.
- `delete(int start, int end)`: removes the characters between the specified indices from the buffer.
- `reverse()`: reverses the order of the characters in the buffer.