Java Inbuilt Functions Cheatsheet

1. String Class

- charAt(int index): Returns the char at a given index

- length(): Returns the string length

- substring(int, int): Extracts a substring

- contains(CharSequence): Checks if string contains a sequence

- equals(Object): Checks if two strings are equal

- equalsIgnoreCase(String): Ignores case while comparing

- toLowerCase(): Converts string to lowercase

- toUpperCase(): Converts string to uppercase

- trim(): Removes leading and trailing spaces

- split(String): Splits string into array using delimiter

- replace(char, char): Replaces characters

- indexOf(char): First occurrence index

- lastIndexOf(char): Last occurrence index

2. Math Class

- Math.abs(x): Absolute value

- Math.max(a, b): Maximum of two values

- Math.min(a, b): Minimum of two values

- Math.pow(a, b): a raised to the power b

- Math.sqrt(x): Square root

- Math.round(x): Rounds to nearest int

- Math.floor(x): Largest int $\leq$ x

- Math.ceil(x): Smallest int $\geq$ x

- Math.random(): Random double [0.0, 1.0)

3. Arrays Class

- Arrays.sort(arr): Sorts array in ascending order

- Arrays.toString(arr): Converts array to string

- Arrays.binarySearch(arr, key): Searches sorted array for key

- Arrays.copyOf(arr, len): Copies array to new length

- Arrays.equals(arr1, arr2): Compares arrays

- Arrays.fill(arr, val): Fills array with a value

4. Collections Class

- Collections.sort(list): Sorts list in ascending order

- Collections.reverse(list): Reverses the list

- Collections.max(list): Finds max in list

- Collections.min(list): Finds min in list

- Collections.shuffle(list): Randomly shuffles list

5. List & ArrayList

- add(val): Adds value to list

- get(index): Retrieves value

- remove(index): Removes element at index

- set(index, val): Replaces value at index

- size(): Number of elements

- contains(val): Checks if value exists

- clear(): Clears the list

6. HashMap<K,V>

- put(key, value): Adds key-value pair

- get(key): Gets value for key

- containsKey(key): Checks if key exists

- containsValue(val): Checks if value exists

- remove(key): Removes entry

- keySet(): Returns all keys

- values(): Returns all values

- entrySet(): Returns key-value pairs

7. Set / HashSet

- add(val): Adds element

- contains(val): Checks existence

- remove(val): Removes element

- size(): Gets size of set

- clear(): Clears all elements

8. Scanner for Input

- next(): Reads next word

- nextLine(): Reads full line

- nextInt(): Reads int

- nextDouble(): Reads double

- hasNext(): Checks if next input exists

9. File / BufferedReader / PrintWriter

- new File(): Represents a file

- BufferedReader.readLine(): Reads line from file/console

- PrintWriter.println(val): Writes to file

10. System & Runtime

- System.out.println(): Print to console

- System.currentTimeMillis(): Current timestamp

- System.exit(0): Terminates program