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Stream API in Java

=> Stream API :-

- → Stream API is related to "Collection Framework" or "Group of Objects"
- → Note: Stream API is not related to Java IO Stream, it is totally different from IO stream
- → Stream API was introduced in Java SE 8 version
- → Use of Stream API :-
- It is used to process or to perform bulk operations on collection objects or group of objects
- 2. It decreases the number of lines of code



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→ Hierarchy of Stream API :-

java.util.stream Object Classes Object Enums java.lang Enum Collectors **StreamSupport** Collector.Characteristics java.util.stream Interfaces AutoCloseable Collector Consumer DoubleConsumer IntConsumer LongConsumer iava.util.function Stream.Builder DoubleStream.Builder IntStream.Builder LongStream.Builder BaseStream java.util.stream java.util.stream Double Stream IntStream LongStream Stream java.util.strean Dorate Brevenson → Stream API Operations Lifecycle :-**Stream Source** Operation result **O**perations **Operations** (Array, Collection (filter(), map(), I/O channel.

Terminal

Operations

count(), sum(),
collect()

sorted(), max(),

etc)

create stream

instance

Generator

function etc)

- Get stream from the source and create stream instance
- Perform operations(0,1 or many operations) such as filter(), sort(), map() etc and transform it into another stream
- 3. Perform terminal operation such as count(), sum() etc and produces the result

=> Stream Interface :-

-> Stream is an interface which is present in java.util.stream package

```
-> Syntax : We Develop

public interface Stream

{

forEach();

filter();
```

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```
map();
collect();
sorted();
min();
max();
count();
//some static methods
of() { - }
empty() { - }
```

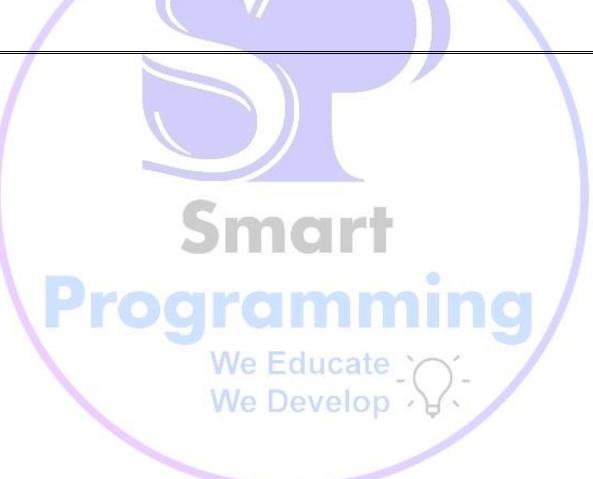
=> Task :-

- 1. WAP to print all the numbers which are greater than 30
- 2. WAP to print all the string values whose length is greater than 5
 - a.(deepak, deepesh, amit, rahul, ankit) -> deepak, deepesh
- WAP to print all the names whose name starts with d
- 3. WAP to get the first character of each name
- 4. WAP to replace the a charcter with z character
- 5. WAP to sort an arraylist containg integer values

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6. WAP to get Minimum and Maximum element in an ArrayList

7. WAP to print the sum of all the even numbers in an ArrayList



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