MAP EASY:

(1) Double the Numbers ?

Input:

List<Integer> list = Arrays.*asList*(1, 2, 3, 4);

Output:

[2, 4, 6, 8]

(2) print each one String Lengths ?

Input:

List<String> list = Arrays.*asList*("apple", "banana", "cherry");

Output: [5, 6, 6]

(3) Uppercase Conversion?

Input: List<String> list = Arrays.*asList*("john", "doe", "smith");

Output: [JOHN, DOE, SMITH]

(4) Square of Numbers?

Input: List<Integer> list = Arrays.*asList*(1, 2, 3, 4);

Output: [1, 4, 9, 16]

(5) Extracting First Characters?

Input: List<String> list = Arrays.asList("apple", "banana", "cherry");

Output: [a, b, c]

(6) Adding Prefix ?

Input: List<String> list = Arrays.*asList*("item1", "item2", "item3");

Output: [prefix_item1, prefix_item2, prefix_item3]

(7) String to Integer Conversion?

Input: List<String> list = Arrays.*asList*("1", "2", "3");

Output: [1, 2, 3]

(8) Convert to Objects?

Input: List<String> names = Arrays.asList("Alice", "Bob");

Output: [A{name='Alice'}, A{name='Bob'}]

(9) Trimming Strings?

Input: List<String> list = Arrays.*asList*(“ hello ", " world ");

Output: [hello, world]

(10) Creating an Index List?

Input: List<String> list = Arrays.*asList*("a", "b", "c");

Output: [0, 1, 2]

MEDIUM:

(1) Mapping to Custom Class with Age?

Input: List<String> list = Arrays.asList("John:30", "Jane:25");

Output: [A{name='John', age=30}, A{name='Jane', age=25}]

(2) Mapping Full Name to Initials ?

Input: List<String> list = Arrays.*asList*("John Doe", "Jane Smith","sahil alam");

Output: [JD, JS, SA]

(3) Mapping to Character Count?

Input: List<String> list = Arrays.*asList*("apple", "banana", "cherry");

Output: [2, 3, 1]

(4) Extracting Last Name from Full Name?

Input: List<String> list = Arrays.*asList*("John Doe", "Jane Smith");

Output: [Doe, Smith]

(5) Calculating Age in Days?

Input: List<Integer> list = Arrays.*asList*(30, 25);

Output: [10950, 9125]

(6) Extracting Domain from Email?

Input: List<String> list = Arrays.*asList*("user@example.com", "admin@domain.com");

Output: [example.com, domain.com]

(7) Convert Temperatures from Celsius to Fahrenheit?

Input: List<Integer> list = Arrays.*asList*(0, 100, 37);

Output: [32.0, 212.0, 98.6]

(8) Creating a List of Even/Odd Status?

Input: List<Integer> list = Arrays.*asList*(1, 2, 3, 4);

Output: [odd, even, odd, even]

(9) Extracting Year from Date Strings?

Input: List<String> list = Arrays.*asList*("2024-01-01", "2023-05-12");

Output: [2024, 2023]

HARD:

(1) Mapping to Custom Object with Multiple Properties?

Input: List<String> list = Arrays.*asList*("John:30:New York", "Jane:25:Los Angeles");

Output: [A{name='John', age=30, city='New York'}, A{name='Jane', age=25, city='Los Angeles'}]

(2) Mapping to a List of Book Titles?

Input: List<A> list = Arrays.*asList*(
new A("1984", "Orwell"),
new A("Brave New World", "Huxley")
);

Output: [1984, Brave New World]

(3) Converting to JSON Format?

Input:

List<A> list = Arrays.*asList*(
new A("Alice"),
new A("Bob")
);

Output: ["{\"name\":\"Alice\"}", "{\"name\":\"Bob\"}"]

(4) Mapping Student Grades to Letter Grades?

Input: List<Integer> list = Arrays.*asList*(95, 85, 76, 62);

Output: [A, B, C, D]

(5) Extracting Specific Fields from Complex Objects?

Input:

```
List<A> list = Arrays.asList(
        new A("John", "Doe", 50000),
        new A("Jane", "Smith", 60000)
);
```

Output: [John Doe, Jane Smith]

(6) Mapping to Summary Statistics?

Input: `List<Integer> list = Arrays.asList(100, 200, 300);`

Output: [100, 200, 300, 600]

(7) Mapping to a List of JSON Objects?

Input:

```
List<Person> people = Arrays.asList(
        new Person("Alice", 25),
        new Person("Bob", 30)
);
```

Output: ["{\"name\":\"Alice\",\"age\":25}", "{\"name\":\"Bob\",\"age\":30}"]