Program 1:

```
 public class ArrayOutOfBoundsExample {
    public static void main(String[] args) {
        int[] array = {1, 2, 3, 4, 5};


        try {
            int element = array[10];
            System.out.println("Element at index 10: " + element);
        } catch (ArrayIndexOutOfBoundsException e) {
            System.out.println("Array index out of bounds exception occurred.");
            e.printStackTrace();
        }
    }
}
```

Program 2:

```
public class PrintArray {
    public static void main(String[] args) {
        int[] numbers = new int[100];
        for (int i = 0; i < numbers.length; i++) {
            numbers[i] = i + 1;
        }
        for (int number : numbers) {
            System.out.println(number);
        }
    }
}
```

Program 3:

```
import java.util.ArrayList;
```

```
class Book {
    int bookId;
    String bookName;
    String authorName;
 public Book(int bookId, String bookName, String authorName) {
        this.bookId = bookId;
        this.bookName = bookName;
        this.authorName = authorName;
    }

    public String toString() {
        return "Book ID: " + bookId + ", Book Name: " + bookName + ", Author Name: " + authorName;
    }
}
public class Main {
    public static void main(String[] args) {
        ArrayList<Book> books = new ArrayList<>();
        books.add(new Book(1, "Book 1", "Author 1"));
        books.add(new Book(2, "Book 2", "Author 2"));
        books.add(new Book(3, "Book 3", "Author 3"));
  for (Book book : books) {
            System.out.println(book);
        }
    }
}
```

Program 4:

```
import java.util.ArrayList;
import java.util.Collections;
import java.util.List;
public class Main {
```

```
    public static void main(String[] args) {
        List<String> strings = new ArrayList<>();
        strings.add("one");
        strings.add("two");
        strings.add("three");
        Collections.reverse(strings);
        System.out.println("Reversed List:");
        for (String str : strings) {
            System.out.println(str);
        }
    }
}
```

Program 5:

```
import java.util.ArrayList;
public class Main {
    public static void main(String[] args) {
        ArrayList<Integer> numbers = new ArrayList<>();
        numbers.add(1);
        numbers.add(2);
        numbers.add(3);
        numbers.add(4);
        numbers.add(5);

        int sum = 0;
        for (int num : numbers) {
            if (num % 2 == 0) {
                sum += num;
            }
        }
   System.out.println("Sum of even numbers: " + sum);
```

```
    }
}
```