Java Coding Challenges - Part 5: StringBuilder

1. Challenge: Reverse a string using StringBuilder

```java
public class ReverseString {
    public static void main(String[] args) {
        String input = "OpenAI";
        StringBuilder sb = new StringBuilder(input);
        System.out.println("Reversed: " + sb.reverse());
    }
}
```

2. Challenge: Append multiple strings using StringBuilder and print

```java
public class AppendStrings {
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder();
        sb.append("Hello, ");
        sb.append("this is ");
        sb.append("a concatenated string.");
        System.out.println(sb.toString());
    }
}
```

3. Challenge: Replace characters in a string using StringBuilder

```java
public class ReplaceCharacters {
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder("hello world");
        sb.setCharAt(6, 'W'); // Replacing 'w' with 'W'
        System.out.println("Modified: " + sb.toString());
    }
}
```

4. Challenge: Insert a word into a string at a specific position

```java
public class InsertWord {
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder("I Java");
        sb.insert(2, "love ");  // Inserting at index 2
        System.out.println(sb.toString()); // Output: I love Java
    }
}
```

5. Challenge: Delete part of a string using StringBuilder

```java
public class DeleteSubstring {
```

```java
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder("RemoveThisPart");
        sb.delete(0, 6); // Deletes "Remove"
        System.out.println("After deletion: " + sb.toString()); // Output: ThisPart
    }
}
```

```java
    public static void main(String[] args) {
        StringBuilder sb = new StringBuilder("RemoveThisPart");
        sb.delete(0, 6); // Deletes "Remove"
        System.out.println("After deletion: " + sb.toString()); // Output: ThisPart
```