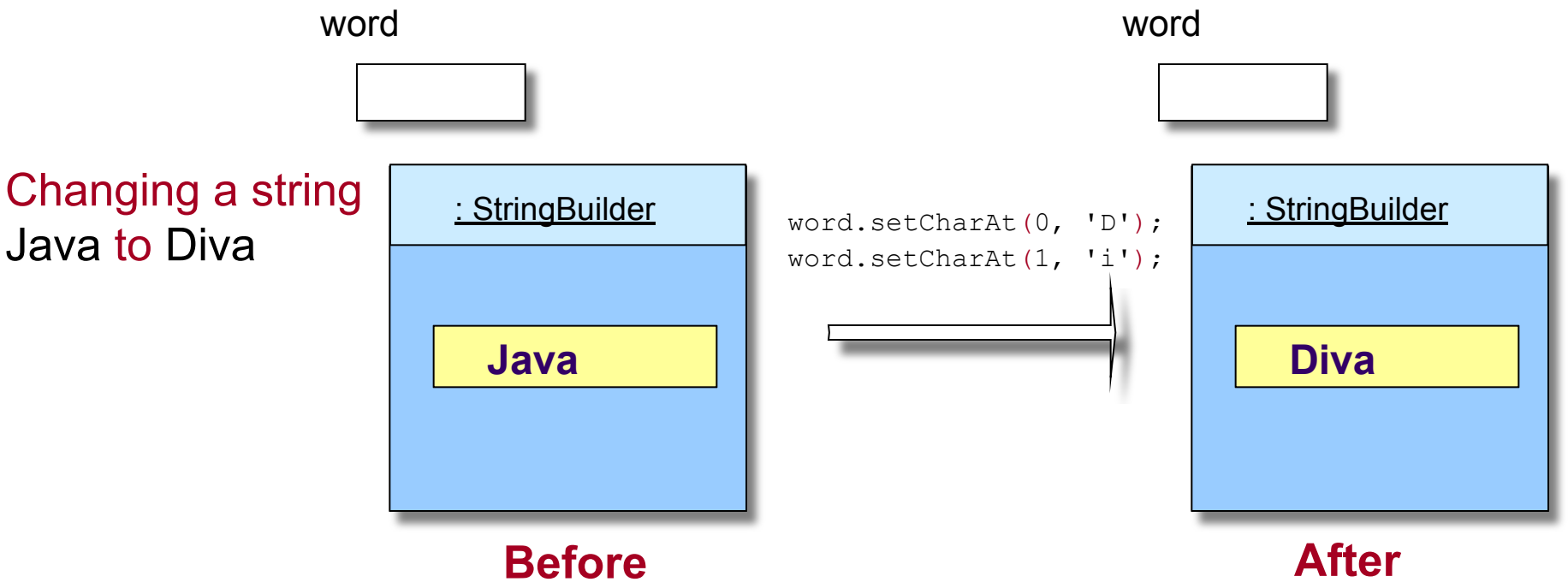
The StringBuilder Class

- In many string processing applications, it is necessary to change the contents of a string.
  - i.e. it needs to be mutable
- The **StringBuilder** class is used for manipulating the contents of a string
  - replacing a character,
  - appending a string with another string,
  - deleting a portion of a string

StringBuilder Example

```
StringBuilder word = new StringBuilder("Java");
word.setCharAt(0, 'D');
word.setCharAt(1, 'i');
```



Sample Processing

Replace all vowels in the sentence with 'X'.

```
char           letter;
String       inSentence   = JOptionPane.showInputDialog (null,
"Sentence:");
StringBuilder tempStringBuffer   =  new StringBuilder(inSentence);
int          numberOfCharacters = tempStringBuffer.length ();

for (int index = 0; index < numberOfCharacters; index++ ) {

     letter = tempStringBuffer.charAt (index);

     if (letter == 'a' || letter == 'A' || letter == 'e' || letter == 'E'
||
          letter == 'i' || letter == 'I' || letter == 'o' || letter == 'O'
||
          letter == 'u' || letter == 'U'   ) {
          tempStringBuffer.setCharAt (index,'X');
     }
}
JOptionPane.showMessageDialog (null, tempStringBuffer );
```

append and insert methods

- append is used to append a String or StringBuilder object to the end of a StringBuilder object.
  - The method can also take an argument of the primitive data type.
  - Any primitive data type argument is converted to a string before it is appended to a StringBuilder object.
- A string can be inserted at a specified position by using the insert method.