

String manipulation and search

The following program illustrates the use of loops and the standard class *String*, inputting a line of text, searching it for the first blank space, and extracting the part of the string up to and including the space.

```
/*
srchspc.java:
Prompts for a line of text, displays the first word.

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*/
import java.util.Scanner;

public class srchspc
{
    public static void main(String[] args)
    {
        // Prompt for line:
        System.out.print("Enter a string: ");
        Scanner cin = new Scanner(System.in);
        String buf = cin.nextLine();

        // Find first space:
        int i = 0, spaceloc = 0;
        boolean found = false;
        while (i < buf.length() && !found)

        {
            if (buf.charAt(i) == ' ')
            {
                spaceloc = i;
                found = true;
            }
            i = i + 1;
        }

        // Display the part of the string up to and including the space:
        System.out.println("Hello " + buf.substring(0, spaceloc));
    }
}
```

The *while* loop executes until either the counter (*i*) reaches the end of the string, or until a flag, *found*, is set. The data type of *found* is *boolean*, and it is set to *true* when and if a space is found.

The methods *length*, *charAt*, and *substring*, of the class *String* are called in this program.

Input of strings is illustrated. A scanner (input) stream object, *cin*, is created. The scanner method *nextLine* fetches a series of characters from the keyboard terminated by *Enter*.