FORMATTED STRINGS

Strings of text can be formatted and output with the `prinf` command. The `printf` command understands a series of characters known as format specification. It takes a string of text and formats it based on the format specification passed over. For example: supposed we wanted the output window to display text in neat columns, like:

Exam_Name	Exam_Grade
Java	A
PHP	B
VB.NET	A

The first column is left-justified, and the second is right-justified. The code for the Exam_Name and Exam_Grade heading is this:

```
String heading1= “Exam Name”;
String heading2= “Exam Grade”;
System.out.printf (“%-15s %15s %n”, heading1,
heading2);
```

To get the left-justified column, you need a percentage symbol, a minus symbol, the number of characters, and then the 's' (in lowercase). So "%-15s" means fifteen characters left justified.

To get a right-justified column, the same sequence of characters is used, except for the minus sign. To get the new line, "%n" is used. Note that the characters are surrounded by double quotes.

After a comma, you type the text that you want formatted. The first comma in the code above separates the *format specification* from the texts being formatted.

String Formatting

"%s"	Format a string with many characters as are needed.
"%-15s"	Format a string with the specified number of characters, and right justify.
"%15s"	Format a string with the specified number of characters, and left justify.

Integer Formatting

"%d"	Format a string with as many numbers as are needed
"%4d"	Format a string with the specified number of integers. Will pad with spaces to the left if not enough integers
"%04d"	Format a string with the specified number of integers. Will pad with zeros to the left if not enough integers

Floating Point Number Formatting

"%f"	Format a string with as many numbers as are needed. Will always give you six decimal places
"%.2f"	Format a string with as many numbers as are needed. Gives 2 decimal places
"%10.2f"	Format to 2 decimal places