

In order to print three lines before the match, use the `-B` option:

```
$ seq 10 | grep 5 -B 3
2
3
4
5
```

Print three lines after and before the match, and use the `-C` option as follows:

```
$ seq 10 | grep 5 -C 3
2
3
4
5
6
7
8
```

If there are multiple matches, then each section is delimited by a line `--`:

```
$ echo -e "a\nb\nc\na\nb\nc" | grep a -A 1
a
b
--
a
b
```

Cutting a file column-wise with cut

We may need to cut the text by a column rather than a row. Let's assume that we have a text file containing student reports with columns, such as Roll, Name, Mark, and Percentage. We need to extract only the name of the students to another file or any nth column in the file, or extract two or more columns. This recipe will illustrate how to perform this task.

How to do it...

`cut` is a small utility that often comes to our help for cutting in column fashion. It can also specify the delimiter that separates each column. In `cut` terminology, each column is known as a **field**.

1. To extract particular fields or columns, use the following syntax:

```
cut -f FIELD_LIST filename
```

`FIELD_LIST` is a list of columns that are to be displayed. The list consists of column numbers delimited by commas. For example:

```
$ cut -f 2,3 filename
```

Here, the second and the third columns are displayed.

2. `cut` can also read input text from `stdin`.

`Tab` is the default delimiter for fields or columns. If lines without delimiters are found, they are also printed. To avoid printing lines that do not have delimiter characters, attach the `-s` option along with `cut`. An example of using the `cut` command for columns is as follows:

```
$ cat student_data.txt
```

```
No  Name  Mark  Percent
```

```
1  Sarath  45   90
```

```
2  Alex   49   98
```

```
3  Anu    45   90
```

```
$ cut -f1 student_data.txt
```

```
No
```

```
1
```

```
2
```

```
3
```

3. Extract multiple fields as follows:

```
$ cut -f2,4 student_data.txt
```

```
Name      Percent
```

```
Sarath     90
```

```
Alex       98
```

```
Anu        90
```

4. To print multiple columns, provide a list of column numbers separated by commas as arguments to `-f`.