1 The primitive `list`

1.1 list

All the vertical length is rubber, all the horizontal length is rigid.

Label Label a Use the default labelsep, it turns out that the label has stick in the item content. The Length is: labelsep=4.99878pt█ Then we set the length 'labelsep'.

`\str_map_inine:nnn` The label is just perfect to the left of the item content after setting the itemindet and labelsep. Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

<Prefix>–I This is the first item. Label width can be large enough, here is 499.87793pt; Label flush rule: 1. width enough -> flush right; overfull-> flush left

<Prefix>–II There is a optional sep = labelsep - itemindent = 10pt, in the left. Pellentesque habitant morbi tristique senectuset netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverrametus rhoncus sem.

Check the length after the settings in the last used `list`: labelsep=5.0pt. Everthing unchanged, the labelsep is default 5pt.

1.2 Practice

Let's create an environment with label flush with the left and Item content flush left with the left margin as well. Keep the par-indent as 2ex.

Note: It's not recommanded to make a list environment like the Figure-1. Maybe you should consider using the `trivlist` environment. But we still can change the align by re-define the command `\makelabel`. See below, we make it align at left.

```
\newcommand\Newmakelabel[1]{
  \makebox[\labelwidth][l]{\parbox[t]{\labelwidth}{\raggedright #1}}█
}

\begin{list}{}{
```

```
      \renewcommand{\makelabel}{\Newmakelabel}
      \setlength{\labelwidth}{6em}
      \setlength{\leftmargin}{0pt}
      \setlength{\labelwidth}{10em}
      \setlength{\labelsep}{0em}
      \setlength{\itemindent}{2ex}
   }
   \item \text
   \item[\textbf{Hello Hello Hello}] \text.
   \item[\textbf{world}] \text.
\end{list}
```

Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

Hello Hello Hello   Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris..

world   Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris..

Then this can achieve the same effect as the `trivlist` environment but is more flexible.

Note: "Trivial": in mathematics, a trivial solution is one that is very simple and therefore not very interesting. In LaTeX, this environment name means that it is so simple that without any decoration.

For that is the label with is not enough, then the indent of the first line of the item will be increase.

Newlist-I Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

Newlist-II Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

NewNewNew List-X Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

1.3   trivlist

Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

Label Label Label 1 This is the first item.

Label Label 2 This is the second item.
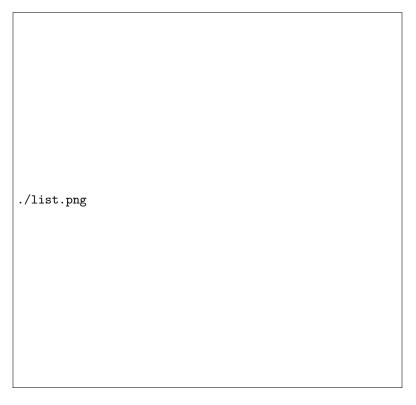
No Label item content

./list.png

Figure 1: List environment

2 LaTeX itemize

Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

Label Label Label 1 This is the first item.

Label Label 1 This is the second item.

- No Label item content

- Lorem ipsum dolor sit amet, consectetuer adipiscing elit.Ut purus elit,vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravidamauris.

3 Get length

3.1 LaTeX method

\newlength{\mylen}

```
\settowidth{\mylen}{aa}
\the\mylen
```

9.99756pt

3.2   TeX primitive

```
\newdimen\mywidth
\setbox0=\hbox{aa}
\mywidth=\wd0
\the\mywidth
```

9.99756pt

4   Tabbing environment

In my opinion, this environment makes it easy to typeset algriothm.

$x \leftarrow 0$
while $x \leq 10$ do
      $x \leftarrow x + 1$
end while

That's ia to say that a `\>` must has a corresponding `\=` in the above line. Additionally, the `\=` resets the logically next tab stop. `\=` sets a tabulator, which can be again reached by `\>`. `\kill` cancels the line, but keeps the tabulator settings.

We can use this to generate a table.

Person: Alice
Address: 123 Main Street
City: Springfield
State: IL
Zip: 62701