

南开大学

计算机网络 课程实验报告

TCP/IP 实验



学院 火星土木学院

专业 土木工程

姓名 丁真

学号 114514

2077 年 1 月 1 日

目 录

1	一级标题	3
1.1	二级标题	3
1.2	测试 tablex	4
1.3	测试 codly	4
1.4	测试 cetz	5
1.5	测试 pinit	5
1.6	测试 colorbox	6
1.7	测试 showybox	6
1.8	测试 fletcher	9
1.9	测试 gentle	10
1.10	测试 badgery	11
1.11	测试 chromo	11
1.12	测试 riesketcher	12
1.13	测试 syntree	12
1.14	测试 physica	12
1.15	测试 mitex	13
1.16	测试 easytable	13
1.17	测试 algo	14
1.18	测试 theorems	14
1.19	测试 diagraph	15
1.20	测试 xarrow	15
1.21	测试 drafting	16

1 一级标题

整理了在实验报告可能用到的任何元素,包括图表(及其编号),树状图,代码块,数学公式,高亮,样式内容块等。

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.

测试中文:

通过这次实验,我深刻体会到了同态加密技术的强大和实用性,特别是在保护数据隐私的同时执行复杂计算的能力。使用 *Microsoft SEAL* 库进行加密计算不仅加深了我对同态加密原理的理解,也提升了我的编程技能和解决实际问题的能力。

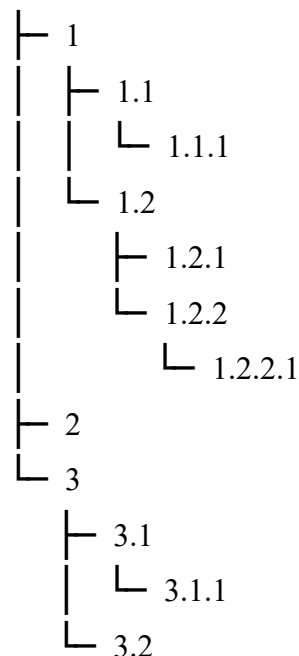
1.1 二级标题

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat.



图 1.1.1: 南开大学校徽

树状图:



☐ Mercury

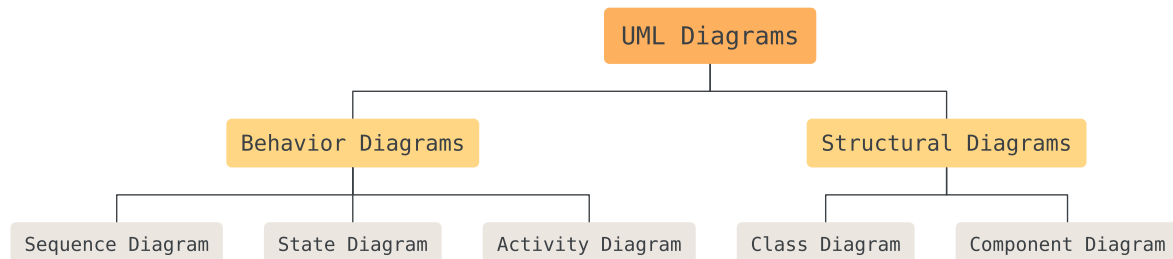
☒ Mars

☐ Jupiter

分点:

1. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
 2. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
- Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.
 - Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

pintora:



1.2 测试 tablex

Username	Data		Score
	Location	Height	
John	Second St.	180 cm	5
Wally	Third Av.	160 cm	10
Jason	Some St.	150 cm	15
Robert	123 Av.	190 cm	20
Other	Unknown St.	170 cm	25

表 1.2.2: 一个表格

1.3 测试 codly

```

1 pub fn main() {
2     println!("Hello, world!");
3 }
    
```

rust

```

1 void MergeSort(int arr[], int left, int right) {
2     if(left >= right) return;
3     int mid = (left + right) >> 1;
4     MergeSort(arr, left, mid);
5     MergeSort(arr, mid + 1, right);
6     int i = left, j = mid + 1, k = 0, temp[right - left + 1];
7     while(i <= mid && j <= right) {
8         if(arr[i] <= arr[j]) temp[k++] = arr[i++];
9         else temp[k++] = arr[j++];
10    }
11    while(i <= mid) temp[k++] = arr[i++];
12    while(j <= right) temp[k++] = arr[j++];
    
```

cpp

```
13  for(int i = 0; i < k; i++) arr[left + i] = temp[i];
14 }
```

1.4 测试 cetz

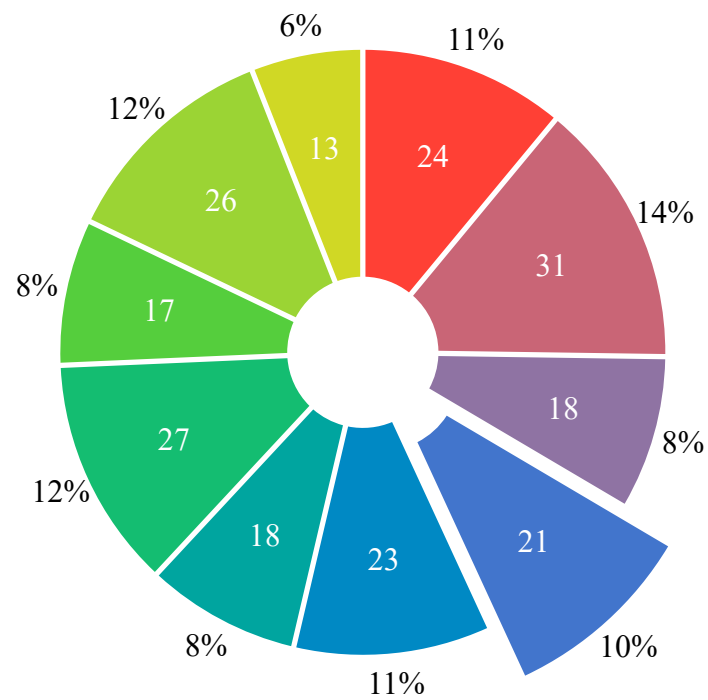


图 1.4.3: 饼图

1.5 测试 pinit

A simple highlighted text.

It is simple.

1.6 测试 colorbox

Lorem ipsum dolor sit amet.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua quaerat voluptatem. Ut enim aequi doleamus animo, cum corpore dolemus, fieri.

Lorem ipsum dolor sit amet.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua quaerat voluptatem. Ut enim aequi doleamus animo, cum corpore dolemus, fieri.

Lorem ipsum dolor sit amet.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua quaerat voluptatem. Ut enim aequi doleamus animo, cum corpore dolemus, fieri.

Lorem ipsum dolor sit amet.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua quaerat voluptatem. Ut enim aequi doleamus animo, cum corpore dolemus, fieri tamen permagna accessio potest, si aliquod aeternum et infinitum impendere malum nobis opinemur. Quod idem licet transferre in voluptatem, ut.

1.7 测试 showybox

①

Red-ish showybox with separated sections!

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua quaerat.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor.

②

Clairaut's theorem

Let $f : A \rightarrow \mathbb{R}$ with $A \subset \mathbb{R}^n$ an open set such that its cross derivatives of any order exist and are continuous in A . Then for any point $(a_1, a_2, \dots, a_n) \in A$ it is true that

$$\frac{\partial^n f}{\partial x_i \dots \partial x_j}(a_1, a_2, \dots, a_n) = \frac{\partial^n f}{\partial x_j \dots \partial x_i}(a_1, a_2, \dots, a_n)$$

This will be useful every

time you want to interchange partial derivatives in the future.

③

Lorem ipsum dolor.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Lorem ipsum dolor sit amet, consectetur Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor inci- adipiscing elit, sed do eiusmod tempor inci- didunt ut labore et dolore magnam aliquam didunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim aeque doleamus quaerat voluptatem. Ut enim aeque doleamus animo, cum corpore dolemus, fieri. animo, cum corpore dolemus, fieri.

④

Divergence theorem

Suppose V is a subset of \mathbb{R}^n which is compact and has a piecewise smooth boundary S (also indicated with $\partial V = S$). If \mathbf{F} is a continuously differentiable vector field defined on a neighborhood of V , then:

$$\iiint_V (\nabla \cdot \mathbf{F}) dV = \iint_S (\mathbf{F} \cdot \hat{\mathbf{n}}) dS$$

In the case of $n = 3$, V represents a volume in three-dimensional space, and $\partial V = S$ its surface

⑤

Parent container

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

⑥

mytitle

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 1

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Child 2

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

⑦

mytitle

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Lorem ipsum dolor.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Lorem ipsum dolor.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Lorem ipsum dolor.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

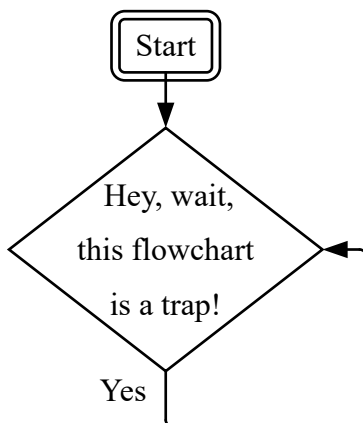
Lorem ipsum dolor.

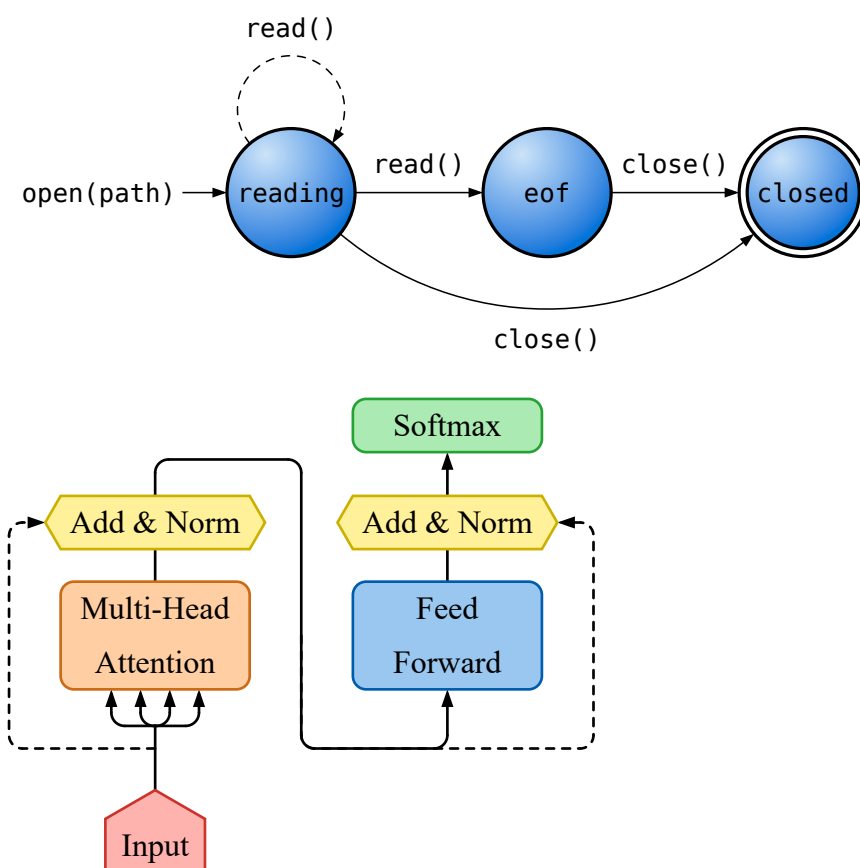
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

Lorem ipsum dolor.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do.

1.8 测试 **fletcher**





1.9 测试 gentle

i Info

This is the info clue ...

🔥 Best tip ever

Check out this cool package

? Question

This is the info clue ...

” Quote

This is the info clue ...

🔧 Example

This is the info clue ...

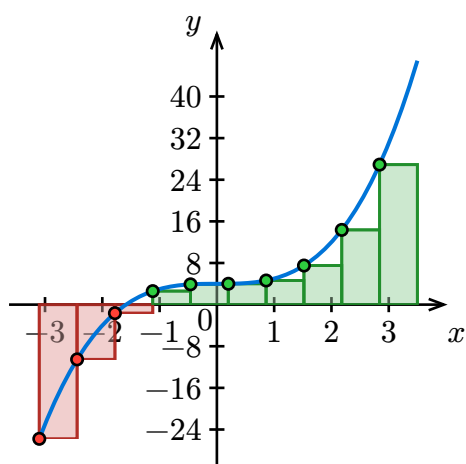
1.10 测试 badgery



1.11 测试 chromo



1.12 测试 riesketcher



1.13 测试 syntree

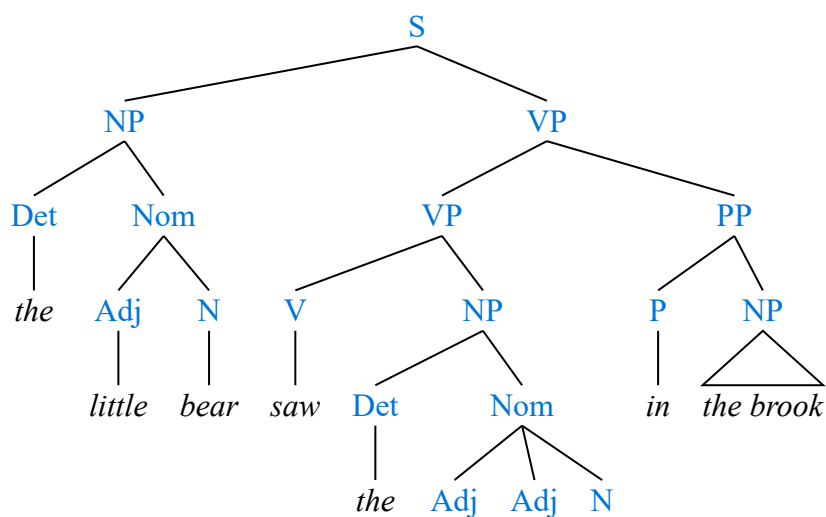


图 1.13.4: Example of a syntax tree.

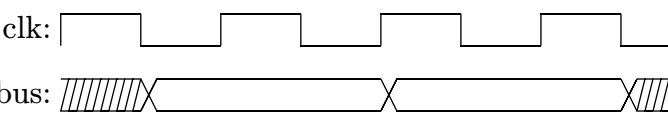
1.14 测试 physica

$A^T, \nabla \times \boldsymbol{E} = -\frac{\partial \boldsymbol{B}}{\partial t}, \quad \Lambda^\mu{}_\nu = \begin{pmatrix} 1 & \\ & \mathbb{R} \end{pmatrix}, \quad f(x,y) \, \mathrm{d}x \, \mathrm{d}y, \quad \mathrm{d}^3 \boldsymbol{x} \, \mathrm{d}y, \quad \Delta^2 x \wedge \Delta^2 y, \quad \frac{\mathrm{D} \varphi}{\mathrm{D} t} = \frac{\partial \varphi}{\partial t} + \boldsymbol{u} \nabla \varphi$

$H(f) = \begin{bmatrix} \frac{\partial^2 f}{\partial x^2} & \frac{\partial^2 f}{\partial x \partial y} \\ \frac{\partial^2 f}{\partial y \partial x} & \frac{\partial^2 f}{\partial y^2} \end{bmatrix}, \quad \boldsymbol{v}^a = \sum_{i=1}^n \alpha_i \hat{\boldsymbol{u}}^i, \quad \left\{ (x,y) \left| \frac{\partial^3 f}{\partial x^2 \partial y} + \frac{\partial^3 f}{\partial x \partial y^2} < \varepsilon \right. \right\}$

$-\frac{1}{c^2}\frac{\partial^2}{\partial t^2}\psi+\nabla^2\psi=\frac{m^2c^2}{\hbar^2}\psi, \quad |n^{(1)}\rangle=\sum_{k\notin D}\frac{\langle k^{(0)}|V|n^{(0)}\rangle}{E_n^{(0)}-E_k^{(0)}}|k^{(0)}\rangle, \quad \int_V\mathrm{d}V\left(\frac{\partial\mathcal{L}}{\partial\varphi}-\partial_\mu\left(\frac{\partial\mathcal{L}}{\partial(\partial_\mu\varphi)}\right)\right)=0$

$\mathrm{d}^2s=-\left(1-\frac{2GM}{r}\right)\mathrm{d}^2t+\left(1-\frac{2GM}{r}\right)^{-1}\mathrm{d}^2r+r^2\mathrm{d}^2\Omega$



1.15 测试 mitex

$f(x)=\int_{-\infty}^{\infty}\hat{f}(\xi)\,e^{2\pi i\xi x}\,d\xi$

1.16 测试 easytable

Header 1	Header 2	Header 3
How	I	want
a	drink,	alcoholic
of	course,	after
the	heavy	lectures
involving	quantum	mechanics.

表 1.16.5: 表格示例

Header 1	Header 2	Header 3
How	I	want
a	drink,	alcoholic
of	course,	after
the	heavy	lectures
involving	quantum	mechanics.

Header 1	Header 2	Header 3
How	I	want
a	drink,	alcoholic
of	course,	after

the heavy lectures
involving quantum mechanics.

1.17 测试 algo

```
FIB (n):
1  if  $n < 0$ :
2  |   return null
3  if  $n = 0$  or  $n = 1$ :
4  |   return  $n$ 
5
6  let  $x \leftarrow 0$ 
7  let  $y \leftarrow 1$ 
8  for  $i \leftarrow 2$  to  $n - 1$ : ▷ so dynamic!
9  |   let  $z \leftarrow x + y$ 
10 |    $x \leftarrow y$ 
11 |    $y \leftarrow z$ 
12
13 return  $x + y$ 
```

indent-guides: 1pt + black

main-text-styles: (size: 15pt)

```
FLOYD-WARSHALL( $V, E, w$ ):
1  Let  $\text{dist}[u, v] \leftarrow \infty$  for  $u, v$  in  $V$ 
2  For  $(u, v)$  in  $E$ :
3  |    $\text{dist}[u, v] \leftarrow w(u, v)$  // edge weights
4  For  $v$  in  $V$ :
5  |    $\text{dist}[v, v] \leftarrow 0$  // base case
6
7  For  $k \leftarrow 1$  to  $|V|$ :
8  |   For  $i \leftarrow 1$  to  $|V|$ :
9  |   |   For  $j \leftarrow 1$  to  $|V|$ :
10 |   |   |   // if new path is shorter, reduce distance
11 |   |   |   If  $\text{dist}[i, j] > \text{dist}[i, k] + \text{dist}[k, j]$ :
12 |   |   |   |    $\text{dist}[i, j] \leftarrow \text{dist}[i, k] + \text{dist}[k, j]$ 
13
14 Return dist
```

1.18 测试 theorems

Definition 1.18.1: A natural number is called a *prime number* if it is greater than 1 and cannot be written as the product of two smaller natural numbers.

Example: The numbers 2, 3, and 17 are prime. Corollary 1.18.1.1 shows that this list is not exhaustive!

Theorem 1.18.1 (Euclid): There are infinitely many primes.

Proof: Suppose to the contrary that p_1, p_2, \dots, p_n is a finite enumeration of all primes. Set $P = p_1 p_2 \dots p_n$. Since $P + 1$ is not in our list, it cannot be prime. Thus, some prime factor p_j divides $P + 1$. Since p_j also divides P , it must divide the difference $(P + 1) - P = 1$, a contradiction. ■

Corollary 1.18.1.1: There is no largest prime number.

Corollary 1.18.1.2: There are infinitely many composite numbers.

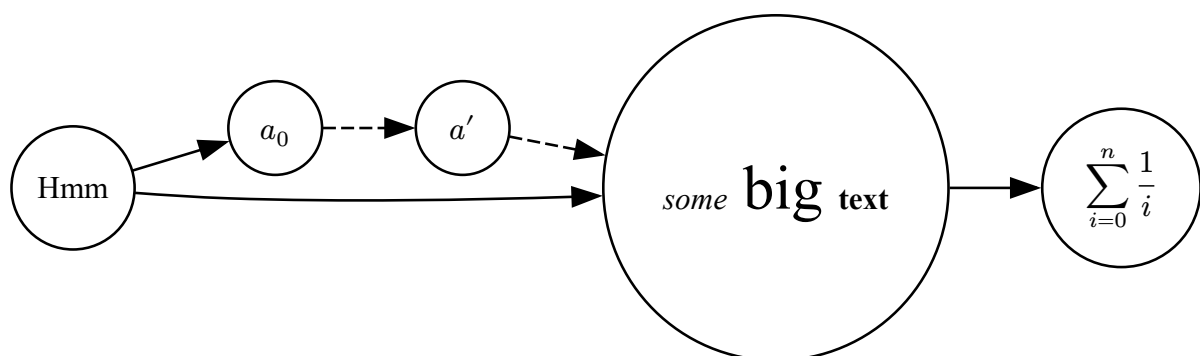
Theorem 1.18.2: There are arbitrarily long stretches of composite numbers.

Proof: For any $n > 2$, consider

$$n! + 2, \quad n! + 3, \quad \dots, \quad n! + n$$

■

1.19 测试 diagraph



1.20 测试 xarrow

$$a \xleftarrow[\mathbb{Q}, 1+1^4]{\hspace{1cm}} b$$

$$c \overset{\text{very long boi}}{\rightsquigarrow} d$$

$$\frac{c}{a \xrightarrow[\text{NP} \sum^*]{\hspace{1cm}} b \times 4}$$

1.21 测试 drafting

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magnam aliquam quaerat voluptatem. Ut enim aequa doleamus.

You can provide two positional arguments if you want to highlight a phrase associated with your note.

Be aware that typst will complain when 4 notes overlap, and stop automatically avoiding collisions when 5 or more notes overlap. This is because the compiler stops attempting to reposition notes after a few attempts (initial layout + adjustment for each note).
You can manually adjust the position of notes with `dy` to silence the warning.

Hello,
world!

The first
is text
which
should
be in-
line-
noted,
and the
second
is the
standard
margin
note.

When
notes are
about to
overlap,
they're
automat-
ically
shifted

To avoid
collision