

The whatsnote Class^{*}

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Released 2025-11-10 v5.0A

1 Introduction

The whatsnote \TeX class provides an elegant layout and powerful tools for taking notes in science, engineering, etc. It supports various compilation methods, such as pdf \TeX , Xe \TeX , Ap \TeX , Lua \TeX , etc.

2 Usage

To load this class, write the line

```
\documentclass{whatsnote}
```

2.1 Cover configuration

`\coverset` `\coverset {<keys>}`

The `\coverset` command accepts the following keys in its argument

title = `<string>` can set the title on the cover page.

author, **afill** = `<string>` can set the author and the affliction respectively on the cover page, and they will be combined together with a vertical bar separated.

date = `<string>` can set the date on the cover page.

extinfo = `<string>` can add contents at the south east corner of the cover page (e.g., add your personal seal (“Yin Zhāng” in Chinese)).

head = `<file>` can add a picture at the top of the cover page.

cloto = `<file>` can add a picture at the center cover page’s white area.

llogos = `<files’ comma list>` can add a series of pictures at the “left bar” of the title page.

^{*}<https://github.com/myhsia/whatsnote>, <https://ctan.org/pkg/whatsnote>

3 Working Example

```
\documentclass[11pt]{whatsnote}

\usepackage[versionfa = 7, hook]{fontawesomescaled}
\usepackage{duckuments}
\coverset{
  title   = Demo for the \textsc{WhatsNote} Package,
  author  = \ttfamily \textsc{Mingyu Xia},
  afill   = <\href{mailto:xiamingyu@westlake.edu.cn}
            {xiamingyu@westlake.edu.cn}>,
  date    = November 2025,
  extinfo = {\href{https://github.com/myhsia/whatsnote}
            {\faIconScaled[scale = 4]{github}}},
  head    = example-image-golden.pdf,
  clogo   = example-grid-100x100pt.pdf,
  llogos  = {example-image-duck, example-image-duck,
            example-image-duck, example-image-duck}
}

\begin{document}

\maketitle[teal]
\frontmatter \tableofcontents \mainmatter

\duckument[full]

\end{document}
```

Golden ratio

(Original size: 32.361×200 bp)

Demo for the WHATSNOTE Package



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0.9	-1.0	2.9	3.9	4.9	5.9	6.9	7.9	8.9	9.9
0.9	1.8	2.8	3.8	4.8	5.8	6.8	7.8	8.8	9.8
0.7	1.7	2.7	3.7	4.7	5.7	6.7	7.7	8.7	9.7
0.5	1.6	2.6	3.6	4.6	5.6	6.6	7.6	8.6	9.6
0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5
0.4	1.4	2.4	3.4	4.4	5.4	6.4	7.4	8.4	9.4
0.3	1.3	2.3	3.3	4.3	5.3	6.3	7.3	8.3	9.3
0.2	1.2	2.2	3.2	4.2	5.2	6.2	7.2	8.2	9.2
0.1	1.1	2.1	3.1	4.1	5.1	6.1	7.1	8.1	9.1
0.0	-1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0



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CHAPTER 1 A friendly duck at level o (chapter)

There once was a very smart but sadly blind duck. When it was still a small duckling it was renowned for its good vision. But sadly as the duck grew older it caught a sickness which caused its eyesight to worsen. It became so bad, that the duck couldn't read the notes it once took containing much of inline math. Only displayed equations remained legible. That annoyed the smart duck, as it wasn't able to do its research any longer. It called for its underduckling and said: "Go, find me the best eye duktor there is. He shall heal me from my disease!"

"But my duck, how are you supposed to manage your daily routines without my visual guidance", replied the underduckling. The smart duck's face turned grim in anger. "You dare to talk back?" The underduckling blushed ashamed. How could he have objections after his duck gave strict orders? The underduckling was so embarrassed about his own behaviour he had to solve an equation.

After the equation was solved and the underduckling prepared his leave for the next day it fell asleep in a shaky mood. It did not know what the journey had prepared for him and if he was prepared enough for it. His sleep was restless. The dreams he had that night were not calm and bright as they used to be for an innocent underduckling.

Before dawn the underduckling woke. He didn't have the feeling of being well rested. But nonetheless he knew that this was the day he should leave. Except saying goodbye to his beloved ones there was nothing holding him back. His duck had sent him on the most important mission a five weeks old inexperienced underduckling was ever sent on. He bid farewell to his mother, all his brothers and sisters, and finally from his duck. The bag was shouldered, the boots were tied, the underduckling left.

As the underduckling went along he saw a tree. It was so tall he couldn't even approximate its height. Oh, how small he felt. What should he, a small duckling whose plumage was still fluffy, achieve in this vast, gigantic world? He stuck his trembling wings under the straps of his backpack to calm his shaking limbs. Where should he start his search? How should he survive in the hostile nature surrounding the sheltered pond of his community?

1.1 A friendly duck at level 1 (section)

There once was a very smart but sadly blind duck. When it was still a small duckling it was renowned for its good vision. But sadly as the duck grew older it caught a sickness which caused its eyesight to worsen. It became so bad, that the duck couldn't read the notes it once took containing much of inline math. Only displayed equations remained legible. That annoyed the smart duck, as it wasn't able to do its research any longer. It called for its underduckling and said: "Go, find me the best eye duktor there is. He shall heal me from my disease!"

"But my duck, how are you supposed to manage your daily routines without my visual guidance", replied the underduckling. The smart duck's face turned grim in anger. "You dare to talk back?" The underduckling

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As the underduckling went along he saw a tree. It was so tall he couldn't even approximate its height. Oh, how small he felt. What should he, a small duckling whose plumage was still fluffy, achieve in this vast, gigantic world? He stuck his trembling wings under the straps of his backpack to calm his shaking limbs. Where should he start his search? How should he survive in the hostile nature surrounding the sheltered pond of his community?

1.1.1 A friendly duck at level 2 (subsection)

There once was a very smart but sadly blind duck. When it was still a small duckling it was renowned for its good vision. But sadly as the duck grew older it caught a sickness which caused its eyesight to worsen. It became so bad, that the duck couldn't read the notes it once took containing much of inline math. Only displayed equations remained legible. That annoyed the smart duck, as it wasn't able to do its research any longer. It called for its underduckling and said: "Go, find me the best eye ducktor there is. He shall heal me from my disease!"

"But my duck, how are you supposed to manage your daily routines without my visual guidance", replied the underduckling. The smart duck's face turned grim in anger. "You dare to talk back?" The underduckling blushed ashamed. How could he have objections after his duck gave strict orders? The underduckling was so embarrassed about his own behaviour he had to solve an equation.

After the equation was solved and the underduckling prepared his leave for the next day it fell asleep in a shaky mood. It did not know what the journey had prepared for him and if he was prepared enough for it. His sleep was restless. The dreams he had that night were not calm and bright as they used to be for an innocent underduckling.

Before dawn the underduckling woke. He didn't have the feeling of being well rested. But nonetheless he knew that this was the day he should leave. Except saying goodbye to his beloved ones there was nothing holding him back. His duck had sent him on the most important mission a five weeks old inexperienced underduckling was ever sent on. He bid farewell to his mother, all his brothers and sisters, and finally from his duck. The bag was shouldered, the boots were tied, the underduckling left.

As the underduckling went along he saw a tree. It was so tall he couldn't even approximate its height. Oh, how small he felt. What should he, a small duckling whose plumage was still fluffy, achieve in this vast,

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As the underduckling went along he saw a tree. It was so tall he couldn't even approximate its height. Oh, how small he felt. What should he, a small duckling whose plumage was still fluffy, achieve in this vast, gigantic world? He stuck his trembling wings under the straps of his backpack to calm his shaking limbs. Where should he start his search? How should he survive in the hostile nature surrounding the sheltered pond of his community?

1.2 Lists

1.2.1 Example for ducks (itemize)

- First swims father drake
- Then floats mother duck
- After her paddles baby duckling
- And over there bathes uncle canard

Nested ducks

- swimming father drake
 - swimming father drake
 - swimming father drake
 - swimming father drake
 - floating mother duck
 - floating mother duck
 - floating mother duck
- floating mother duck

gigantic world? He stuck his trembling wings under the straps of his backpack to calm his shaking limbs. Where should he start his search? How should he survive in the hostile nature surrounding the sheltered pond of his community?

A friendly duck at level 3 (subsection)

There once was a very smart but sadly blind duck. When it was still a small duckling it was renowned for its good vision. But sadly as the duck grew older it caught a sickness which caused its eyesight to worsen. It became so bad, that the duck couldn't read the notes it once took containing much of inline math. Only displayed equations remained legible. That annoyed the smart duck, as it wasn't able to do its research any longer. It called for its underduckling and said: "Go, find me the best eye ducktor there is. He shall heal me from my disease!"

"But my duck, how are you supposed to manage your daily routines without my visual guidance", replied the underduckling. The smart duck's face turned grim in anger. "You dare to talk back?" The underduckling blushed ashamed. How could he have objections after his duck gave strict orders? The underduckling was so embarrassed about his own behaviour he had to solve an equation.

After the equation was solved and the underduckling prepared his leave for the next day it fell asleep in a shaky mood. It did not know what the journey had prepared for him and if he was prepared enough for it. His sleep was restless. The dreams he had that night were not calm and bright as they used to be for an innocent underduckling.

Before dawn the underduckling woke. He didn't have the feeling of being well rested. But nonetheless he knew that this was the day he should leave. Except saying goodbye to his beloved ones there was nothing holding him back. His duck had sent him on the most important mission a five weeks old inexperienced underduckling was ever sent on. He bid farewell to his mother, all his brothers and sisters, and finally from his duck. The bag was shouldered, the boots were tied, the underduckling left.

As the underduckling went along he saw a tree. It was so tall he couldn't even approximate its height. Oh, how small he felt. What should he, a small duckling whose plumage was still fluffy, achieve in this vast, gigantic world? He stuck his trembling wings under the straps of his backpack to calm his shaking limbs. Where should he start his search? How should he survive in the hostile nature surrounding the sheltered pond of his community?

A friendly duck at level 4 (paragraph) There once was a very smart but sadly blind duck. When it was still a small duckling it was renowned for its good vision. But sadly as the duck grew older it caught a sickness which caused its eyesight to worsen. It became so bad, that the duck couldn't read the notes it once took containing much of inline math. Only displayed equations remained legible. That annoyed the smart duck, as it wasn't able to do its research any longer. It called for its underduckling and said: "Go, find me the best eye ducktor there is. He shall heal me from my disease!"

"But my duck, how are you supposed to manage your daily routines without my visual guidance", replied the underduckling. The smart duck's face turned grim in anger. "You dare to talk back?" The underduckling blushed ashamed. How could he have objections after his duck gave strict orders? The underduckling was so embarrassed about his own behaviour he had to solve an equation.

1.2.2 Example for ducks (enumerate)

1. First swims father drake
2. Then floats mother duck
3. After her paddles baby duckling
4. And over there bathes uncle canard

Nested ducks

1. swimming father drake
 - (a) swimming father drake
 - i. swimming father drake
 - A. swimming father drake
 - B. floating mother duck
 - ii. floating mother duck
 - (b) floating mother duck
2. floating mother duck

1.2.3 Example for ducks (description)

drake is the swimming father

duck is the floating mother

duckling is the paddling baby

canard is the bathing uncle

Nested ducks

drake is the swimming father

drake is the swimming father

drake is the swimming father

duck is the floating mother

duck is the floating mother

duck is the floating mother

duck is the floating mother

A The Source Code

1 <@@=whats>

A.1 The whatsnote.cls file

```

2 <*class>
3 \def \whatsnote@date {2025-11-10}
4 \def \whatsnote@version {v5.0A}
5 \ProvidesExplPackage {whatsnote} {2025-11-10} {v5.0A}
6 {LaTeX class for taking notes in science, engineering, etc.}
7 \cs_new_protected:Npn \whatsnote_msg_new:nn #1#2
8 { \msg_new:nnn { whatsnote } {#1} {#2} }
9 \cs_new_protected:Npn \whatsnote_msg_error:nn #1#2
10 { \msg_error:nnn { whatsnote } {#1} {#2} }
11 \cs_generate_variant:Nn \whatsnote_msg_error:nn { nx }
12 \whatsnote_msg_new:nn { not found module }
13 { The ~ whats ~ module ~ ‘#1’ ~ not ~ found. }
14 \cs_new_protected_nopar:Npn \whatsnote_provide_module:n #1
15 {
16   \ProvidesExplFile {Whats-#1-module.code.tex}
17   {\whatsnote@date} {\whatsnote@version}
18   { WhatsNote ~ \text_titlecase:n {#1} ~ Module }
19 }
20 \cs_new_protected_nopar:Npn \whatsnote_load_module:n #1
21 {
22   \clist_map_inline:nn {#1}
23   {
24     \file_if_exist_input:nF { Whats-##1-module.code.tex }
25     { \whatsnote_msg_error:nn { not found module } {##1} }
26   }
27 }
28 \clist_new:N \g__whats_base_class_options_clist
29 \keys_define:nn { whats / classoption }
30 {
31   darkmode .bool_set:N = \g__whats_darkmode_bool,
32   darkmode .initial:n = false,
33   darkmode .default:n = true,
34   unknown .code:n = \__whats_unknown_option:n { #1 },
35 }
36 \cs_new_protected_nopar:Npn \__whats_unknown_option:n #1
37 {
38   \tl_if_empty:nTF { #1 }
39   { \clist_gput_right:NV \g__whats_base_class_options_clist \l_keys_key_str }
40   {
41     \exp_args:NNx \clist_gput_right:Nn \g__whats_base_class_options_clist
42     { \l_keys_key_str = \exp_not:n {#1} }
43   }
44 }
45 \ProcessKeyOptions [ whats / classoption ]
46 \PassOptionsToClass { book } { 11pt }
47 \PassOptionsToPackage { svgnames } { xcolor }
48 \exp_args:NNV \LoadClass [ \g__whats_base_class_options_clist ] { book }
49 \whatsnote_load_module:n { typeset, layout, theorem, cover }

```

50 \file_input_stop:

51 \</class>

A.2 The whats-typeset-module.code.tex file

52 *typeset

53 \whatsnote_provide_module:n { typeset }

54 \RequirePackage{amssymb, bbm, bm, cancel, extarrows,
55 mathtools, nicematrix, xfrac}

56 \RequirePackage[e]{esvect}

57 \let \vec \vv

58 \DeclareRobustCommand \cev [1]{\mathpalette\do@cev{#1}}

59 \newcommand \do@cev [2]{

60 \vbox{\offinterlineskip

61 \ialign{##\cr

62 \hidewidth\reflectbox{\$\m@th#1\vec{ }\mkern4mu\$}\hidewidth\cr

63 \$\m@th#1#2\$\cr

64 }

65 }

66 }

67 \sys_if_engine_xetex:T { \PassOptionsToPackage { no-math } { fontspec } }

68 \RequirePackage{fixdif, derivative}

69 \newdef \D {\mathsf D}

70 \newdef \upe {\mathrm e}

71 \newdef \iu {\mathrm i \mkern1mu}

72 \RequirePackage{siunitx}

73 \DeclareSIUnit \angstrom {\text \AA}

74 \let \sinh \relax \let \cosh \relax \let \tanh \relax \let \coth \relax

75 \DeclareMathOperator \sinh {sh}

76 \DeclareMathOperator \cosh {ch}

77 \DeclareMathOperator \tanh {th}

78 \DeclareMathOperator \coth {cth}

79 \DeclareMathOperator \sgn {sgn}

80 \DeclareMathOperator \cotan {\qopname\relax o{ctg}}

81 \DeclareMathOperator \im {im}

82 \DeclareMathOperator \adj {adj}

83 \DeclareRobustCommand \tran{\mkern-1.5mu\mathsf T}

84 \DeclareRobustCommand \identity {\ensuremath{\mathbbm 1}}

85 \RequirePackage[version = 4]{mhchem}

86 \RequirePackage{physics2}

87 \usephysicsmodule{ab, ab.braket, diagmat, xmat, qtext.legacy, op.legacy}

88 \DeclareRobustCommand \bra

89 {\@ifstar{\phy@d@lx{br.m}{br.a}}{\phy@d@lx{br.m}{br.a}*}}

90 \DeclareRobustCommand \ket

91 {\@ifstar{\phy@d@lx{kt.m}{kt.a}}{\phy@d@lx{kt.m}{kt.a}*}}

92 \DeclareRobustCommand \braket

93 {\@ifstar{\phy@d@lx{bk.m}{bk.a}}{\phy@d@lx{bk.m}{bk.a}*}}

94 \DeclareRobustCommand \ketbra

95 {\@ifstar{\phy@d@lx{kb.m}{kb.a}}{\phy@d@lx{kb.m}{kb.a}*}}

96 \DeclareDocumentCommand \diagmat { s O{ } m }

97 {

98 \IfBooleanTF {#1}

99 { _phy_diagmat_type:nnn { small } {#2} {#3} }

100 { _phy_diagmat_type:nnn { } {#2} {#3} }

```

101 }
102 \DeclareDocumentCommand \pdiagramat { s O{} m }
103 {
104   \IfBooleanTF {#1}
105     { \_phy_diagramat_type:nnn { psmall } {#2} {#3} }
106     { \_phy_diagramat_type:nnn { p } {#2} {#3} }
107 }
108 \DeclareDocumentCommand \bdiagramat { s O{} m }
109 {
110   \IfBooleanTF {#1}
111     { \_phy_diagramat_type:nnn { bsmall } {#2} {#3} }
112     { \_phy_diagramat_type:nnn { b } {#2} {#3} }
113 }
114 \DeclareDocumentCommand \Bdiagramat { s O{} m }
115 {
116   \IfBooleanTF {#1}
117     { \_phy_diagramat_type:nnn { Bsmall } {#2} {#3} }
118     { \_phy_diagramat_type:nnn { B } {#2} {#3} }
119 }
120 \DeclareDocumentCommand \vdiagramat { s O{} m }
121 {
122   \IfBooleanTF {#1}
123     { \_phy_diagramat_type:nnn { vsmall } {#2} {#3} }
124     { \_phy_diagramat_type:nnn { v } {#2} {#3} }
125 }
126 \DeclareDocumentCommand \Vdiagramat { s O{} m }
127 {
128   \IfBooleanTF {#1}
129     { \_phy_diagramat_type:nnn { Vsmall } {#2} {#3} }
130     { \_phy_diagramat_type:nnn { V } {#2} {#3} }
131 }
132 \RequirePackage{hyperref}
133 \hypersetup{colorlinks, citecolor = teal}
134 \let\oldHyPsd@CatcodeWarning\HyPsd@CatcodeWarning
135 \renewcommand \HyPsd@CatcodeWarning [1]
136   {\ifnum\pdfstrcmp{#1}{math shift}=0 \else \oldHyPsd@CatcodeWarning{#1} \fi}
137 \pdfstringdefDisableCommands{
138   \def\intop{int} \def\ilimits@{lim}
139   \def\infty{infty} \let\HyPsd@CatcodeWarning\@gobble
140 }
141 \NewDocumentCommand \mathemph { O{} m } {\ifmmode
142   \colorbox{Crimson!15}{\vphantom{$\displaystyle #1$}$\displaystyle #2$}\else
143   \colorbox{Crimson!15}{\vphantom{#1}#2}\fi}
144 \color_set:nnn { eqcolor } { HTML } { 2F4F4F }
145 % \def \dollar@begin { \def \eqcolor {\color{eqcolor}} \eqcolor $$ }
146 % \def \dollar@end { $$ \color_select:n {black} }
147 \DeclareRobustCommand \[
148 {
149   \scan_stop:
150   \if_mode_math:
151     \@badmath
152   \else:
153     \if_mode_vertical:
154       \nointerlineskip

```

```

155     \makebox[.6\linewidth]{ }
156     \fi:
157     \dollar\dollar@begin^^A \color_select:n { eqcolor }
158     \fi:
159 }
160 \DeclareRobustCommand \]
161 {
162     \scan_stop:
163     \if_mode_math:
164         \if_mode_inner:
165             \@badmath
166         \else:
167             \dollar\dollar@end
168             \fi:
169         \else:
170             \@badmath
171         \fi:
172     \ignorespaces
173 }
174 \file_input_stop:
175 </typeset>

```

A.3 The whats-layout-module.code.tex file

```

176 <*\layout>
177 \whatsnote_provide_module:n { layout }
178 % Graphics
179 \RequirePackage{anyfontsize, lmodern, microtype, manfnt, ragged2e, soul}
180 \RequirePackage[mono = false, osf]{libertine}
181 \RequirePackage[normalem]{ulem}
182 \RequirePackage[svgnames]{xcolor}
183 \RequirePackage[left = 1.25in, vmargin = 1in, headheight = 15pt,
184                 right = .75in, headsep = 15pt]{geometry}
185 \RequirePackage{graphicx, pgfplots}
186 \pgfplotsset{compat = newest}
187 \graphicspath{{./media/logos/} {./media/}}
188 % Table and list
189 \RequirePackage{booktabs, array, enumext}
190 \setenumext[enumext, 1]{label = (\alph*)}
191 \setenumext[enumext, 2]{label = \roman*}
192 \RequirePackage[inline]{enumitem}
193 % Header & Footer
194 \RequirePackage{fancyhdr}
195 \fancyhead[OR]{\sffamily \rightmark}
196 \fancyhead[OL]{\sffamily \thepage}
197 \fancyhead[EL]{\sffamily \leftmark}
198 \fancyhead[ER]{\sffamily \thepage}
199 \fancyfoot[L,C,R]{ }
200 \renewcommand* \headrulewidth {1pt}
201 \renewcommand* \footrulewidth {.5pt}
202 \hook_gput_code:nnn { cmd / headrule / before } { . }
203 { \color_select:n { black!25 } }
204 \dim_new:N \l__whats_footrule_tmp_dim

```



```

205 \renewcommand \footrule
206 {
207   \if@fancyplain \let \footrulewidth \plainfootrulewidth \fi
208   \color_select:n { black!25 }
209   \hrule \@width \headwidth \@height \footrulewidth
210 }
211 \pagestyle{fancy}
212 % Paragraphs
213 \linespread{1.2}
214 \RequirePackage{titlesec, subcaption}
215 \titleformat \chapter [hang] {\huge \bfseries \sffamily}
216   {\biolinumLF \scshape \@chapapp\ \thechapter} {1em} {}
217 \titlespacing* \chapter {\z@} {\z@} {30pt}
218 \titlespacing \paragraph {\z@} {1.5ex minus .1 ex} {1pc}
219 \RequirePackage{paracol}
220 \columnratio{.64}
221 \RequirePackage{framed}
222 \setlength \FrameSep {\z@}
223 \renewcommand* \chaptermark[1] {
224   \markboth {\normalfont \biolinumLF \scshape
225     \ifnum \c@secnumdepth >\m@ne
226       \if@mainmatter \@chapapp \ \thechapter .-\ \fi
227     \fi #1}{}}
228 \renewcommand* \sectionmark[1] {
229   \markright {\normalfont \sffamily
230     \ifnum \c@secnumdepth >\z@ \thesection . \
231     \fi #1}}
232 \setlength \parindent {\z@}
233 \renewcommand \@pnumwidth {2.5em}
234 \renewcommand \appendix {
235   \cleardoublepage
236   \setcounter{chapter}{0}
237   \setcounter{section}{0}
238   \gdef\@chapapp{\appendixname}
239   \gdef\thechapter{\@Alph\c@chapter}
240   \addtocontents {toc} { \protect \makeatletter }
241   \addtocontents {toc} {
242     \token_to_str:N \renewcommand* \token_to_str:N \l@section
243     { \token_to_str:N \@dottedtocline {1} {1.5em} {5em} }
244   }
245   \addtocontents {toc} { \protect \makeatother }
246   \renewcommand* \familydefault {\sfdefault}
247   \pagenumbering{roman}
248 }
249 \file_input_stop:
250 </layout>

```

A.4 The whats-theorem-module.code.tex file

```

251 <*theorem>
252 \whatsnote_provide_module:n { theorem }
253 \RequirePackage{keytheorems}
254 \newcounter {week}

```

```

255 \newcommand \newweek { \refstepcounter{week} \clearpage }
256 \newkeytheorem{theorem}[parent = section, style = definition]
257 \newkeytheorem{example}[parent = section, style = definition]
258 \newkeytheorem{definition}[parent = section, style = definition]
259 \newkeytheorem{problem}[parent = week, style = definition]
260 \newkeytheorem{solution}[numbered = false, style = definition]
261 \newkeytheorem{remark}[numbered = false, style = remark]

262 \file_input_stop:
263 \</theorem>

```

A.5 The whats-cover-module.code.tex file

```

264 \*cover>

265 \whatsnote_provide_module:n { cover }

266 \RequirePackage{tikz, zref-totpages}
267 \ExplSyntaxOff
268 \usetikzlibrary{fadings, patterns, arrows.meta}
269 \tikzset{ > = Stealth, every picture/.append style = {
270     line join = round, line cap = round, thick } }
271 \ExplSyntaxOn
272 \DeclareDocumentCommand \coverset { m } { \keys_set:nn { __whats / coverset } {#1} }
273 \clist_new:N \l__whats_cover_llogos_clist
274 \keys_define:nn { __whats / coverset }
275 {
276     title          .tl_gset:N      = \@title,
277     author         .tl_gset:N      = \@author,
278     afill          .tl_gset:N      = \@afill,
279     date           .tl_gset:N      = \@date,
280     date           .initial:n      = \today,
281     extinfo        .tl_set:N       = \l__whats_cover_extinfo_tl,
282     head           .tl_set:N       = \l__whats_cover_head_tl,
283     clogo          .tl_set:N       = \l__whats_cover_clogo_tl,
284     clogo-pattern .tl_set:N       = \l__whats_cover_clogo_pattern_tl,
285     llogos         .clist_set:N    = \l__whats_cover_llogos_clist,
286 }
287 \DeclareRobustCommand *\sidehead [1] { \tl_gset:Nn \@sidehead {#1} }
288 \DeclareRobustCommand *\sidefoot [1] { \tl_gset:Nn \@sidefoot {#1} }
289 \sidehead{\@title}
290 \sidefoot{\thepage\,/,\, \ztotpages}
291 \hook_gset_rule:nnnn { shipout / background } { __whats } { before } { pgfracs }
292 \DeclareDocumentCommand \maketitle { 0 { gray } }
293 {
294     \__whats_@maketitle:n {#1}
295     \hook_gput_code:nnn { shipout / background } { __whats }
296     { \if@mainmatter \__whats_sidebar_hook:n {#1} \fi }
297 }
298 \DeclareCommandCopy \save@cleardoublepage \cleardoublepage
299 \cs_new_protected_nopar:Npn \__whats_@maketitle:n #1
300 {
301     \pagecolor{#1!10}
302     \let \cleardoublepage \clearpage
303     \begin{titlepage}
304         \begin{tikzpicture} [ remember ~ picture, overlay ]

```

```

305 \tl_if_empty:NF \l__whats_cover_head_tl
306 {
307     \node [ yshift = .325\paperheight, opacity = .5,
308             rotate ~ around = { pi \c_colon_str
309             ([yshift = .325\paperheight]current ~ page.center)} ]
310     at (current ~ page.center)
311     { \includegraphics [width = \paperwidth]
312       { \l__whats_cover_head_tl } };
313 }
314 \clist_if_empty:NF \l__whats_cover_llogos_clist
315 {
316     \int_step_inline:nn { \clist_count:N \l__whats_cover_llogos_clist }
317     {
318         \node
319         [ opacity = .25, yshift = {
320           -.6\paperheight / 2 /
321           \clist_count:N \l__whats_cover_llogos_clist +
322           ##1 * .6\paperheight /
323           \clist_count:N \l__whats_cover_llogos_clist }
324         ] at ([xshift = .1\paperwidth]current ~ page.south ~ west)
325         {
326             \includegraphics
327             [
328                 height = .6\paperheight/6,
329                 width = .16\paperwidth, keepaspectratio
330             ] { \clist_item:Nn \l__whats_cover_llogos_clist { ##1 } }
331         };
332     }
333 }
334 \fill [ white, opacity = .5 ] (current ~ page.south ~ east) rectangle +
335 (-.8\paperwidth, .6\paperheight);
336 \node [ gray, above ~ left, inner ~ sep = 1em ] at
337 (current ~ page.south ~ east) { \l__whats_cover_extinfo_tl };
338 \fill [ white, opacity = .5 ] (current ~ page.south ~ east) rectangle +
339 (-.7\paperwidth, .7\paperheight);
340 \node
341 [ shift = {(-.35*\paperwidth,.65*\paperheight)},
342   darkgray, font = \Huge \bfseries \sffamily
343 ] at (current ~ page.south ~ east) { \@title };
344 \node
345 [ shift = {(-.75*\paperwidth,.3*\paperheight)},
346   rotate = 90, gray, opacity = .6, font = \huge \sffamily
347 ] at (current ~ page.south ~ east) { \@author\ | \ \@afill };
348 \tl_if_empty:NF { \l__whats_cover_clogo_tl }
349 {
350     \node (cover ~ logo)
351     [ shift = {(.65*\paperwidth,.3*\paperheight)}]
352     at (current ~ page.south ~ west)
353     {
354         \includegraphics[ height = .4\paperheight ]
355         { \l__whats_cover_clogo_tl }
356     };
357 }
358 \end{tikzpicture}

```

```

359     \clearpage \thispagestyle{empty}
360     \centering
361     \vspace* \fill \sffamily
362     \Large This ~ page ~ was ~ intentionally ~ left ~ blank.
363     \vspace* \fill
364     \end{titlepage}
365     \pagecolor{Beige!30}
366 }
367 \cs_new_protected:Npn \__whats_sidebar_hook:n #1
368 {
369     \int_if_odd:nTF { \arabic { page } }
370     {
371         \tikz [remember ~ picture, overlay] {
372             \fill [ #1, opacity = .125 ]
373                 (current ~ page.south ~ west) rectangle
374                 ([xshift = +.5in]current ~ page.north ~ west);
375             \node [ opacity = .25, inner ~ xsep = .25in,
376                 above, inner ~ ysep = {1in - \footskip + 1ex},
377                 font = \sffamily \large,
378                 ] at ([xshift = +.25in]current ~ page.south ~ west)
379                 { \rotatebox {-90} {\@sidehead} };
380             \node [ opacity = .25, inner ~ xsep = .25in,
381                 above, inner ~ ysep = \headsep, yshift = -1in,
382                 font = \sffamily \large,
383                 ] at ([xshift = +.25in]current ~ page.north ~ west)
384                 { \rotatebox {-90} {\@sidefoot} };
385         }
386     }
387     {
388         \tikz [remember ~ picture, overlay] {
389             \fill [ #1, opacity = .125 ]
390                 (current ~ page.south ~ east) rectangle
391                 ([xshift = -.5in]current ~ page.north ~ east);
392             \node [ opacity = .25, inner ~ xsep = .25in,
393                 above, inner ~ ysep = {1in - \footskip + 1ex},
394                 font = \sffamily \large,
395                 ] at ([xshift = -.25in]current ~ page.south ~ east)
396                 { \rotatebox {+90} {\@sidehead} };
397             \node [ opacity = .25, inner ~ xsep = .25in,
398                 above, inner ~ ysep = \headsep, yshift = -1in,
399                 font = \sffamily \large,
400                 ] at ([xshift = -.25in]current ~ page.north ~ east)
401                 { \rotatebox {+90} {\@sidefoot} };
402         }
403     }
404 }
405 \file_input_stop:
406 </cover>

```

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